AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
		1 | 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE	5. PROJECT NO. (If applicable)
W9127824B0002-0003	15 APRIL 2024		CHC22010

6. ISSUED BY CODE	7. ADMINISTERED BY(If other than item 6) CODE
Corps of Engineers 109 St. Joseph St. Mobile, AL 36602	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP code)	☒	9A. AMENDMENT OF SOLICITATION NO. W9127824B0002 9B. DATED (SEE ITEM 11) 22 MARCH 2024
	☐	10A. MODIFICATION OF CONTRACT/ORDER NO. 10B. DATED (SEE ITEM 13)

CODE	FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. **FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.** If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(if required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

☐	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A
☐	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR 43.103(b)
☐	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
☐	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

The subject solicitation for: **MOBILE HARBOR, ALABAMA, DEEPENING AND WIDENING – PHASE 2B MOBILE, ALABAMA**

Is modified in the following: **REFER TO THE ENCLOSED REVISED SPECIFICATIONS FOR AMENDMENT NO. 0003**

Except as provided herein, all terms and conditions of the document reference in item 9A or 10A, as Heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICE (Type or print)	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of contracting officer)	16C. DATE SIGNED

PART I - REVISIONS MADE BY ADDED AND/OR REPLACEMENT PARAGRAPHS/PAGES/SECTIONS

The items listed below are to be replaced by the corresponding added and/or revised paragraphs/pages or sections. Added and/or revised paragraphs/pages or sections are indicated by a note in bottom right hand corner of each paragraph or page. Added sections are hereby made a part of the contract and are to be inserted in the specification in the proper numerical/alphabetical sequence.

Within the specifications, deletions from the specifications are indicated by strikethrough, e.g.: ~~deletions are marked with strikethrough~~ and additions to the specifications including revisions/substitutions are indicated in bold, italic and underlined, e.g.: ***additions are indicated thus.***

SECTION	Corresponding Added or Revised Paragraph Page, and/or Section
01 57 19	Added Paragraphs 3.4.2 as indicated herein.
35 20 23.00 36	Revised Paragraphs 3.1.2 and 3.1.4 as indicated herein.

PART II - NOTE: Revised, replacement and added drawings are listed below. These revised, replacement and added drawings are to be inserted into the folio in the proper numerical sequence. Drawings that have been revised or replaced by this amendment shall be deleted from the folio. All drawings listed below are revised unless indicated otherwise.

SHEET ID	TITLE OF DRAWINGS
G-001	AM02 COVER SHEET
G-002	INDEX OF DRAWINGS
G-003	GENERAL NOTES

PART III - The file listed below is provided as supplemental information to the solicitation.

9.8.23 MOBILE PHASE 4 ODMDS .1R.xyz

Encl as stated
Replaced pages of the specifications as indicated in Part I.
3 Revised drawings as indicated in Part II.

SECTION 01 57 19

TEMPORARY ENVIRONMENTAL CONTROLS
08/22

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 64	Compliance Assurance Monitoring
40 CFR 241	Guidelines for Disposal of Solid Waste
40 CFR 243	Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste
40 CFR 258	Subtitle D Landfill Requirements
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
49 CFR 173	Shippers - General Requirements for Shipments and Packagings
49 CFR 178	Specifications for Packagings

1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical,

or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 Sediment

Sediment is soil and other debris that have eroded and have been transported by runoff water or wind.

1.2.4 Solid Waste

Solid wastes (excluding clearing debris) include any waste generated by the Contractor which meets the most complete definition of solid waste as described by Federal, state and local laws and regulations.

1.2.5 Waters of the United States

Waters of the United States means Federally jurisdictional waters, including wetlands, that are subject to regulation under Section 404 of the Clean Water Act or navigable waters, as defined under the Rivers and Harbors Act.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Preconstruction Survey

Environmental Protection Plan; G

SD-06 Test Reports

Manatee Sighting Reports; G, PD

SD-11 Closeout Submittals

Waste Determination Documentation; G

Hazardous Waste/Debris Management; G

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Protect the environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire duration of this Contract. Comply with federal, state, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution. This includes compliance with all requirements under the terms and conditions set out in the certifications by the Alabama Department of Environmental Management (ADEM), U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the U.S. Environmental Protection Agency (USEPA)in compliance with the provisions of the Contract and applicable Federal, state, and local environmental laws and regulations. Compliance with the provisions of this section by subcontractors will be the responsibility of the Contractor. The Contractor must perform all work within compliance specifications issued by ADEM, USFWS, NMFS, and USEPA, which is included in the Environmental Compliance Appendix.

Tests and procedures assessing whether construction operations comply with Applicable Environmental Laws may be required. Analytical work must be performed by qualified laboratories; and where required by law, the laboratories must be certified.

1.5 QUALITY ASSURANCE

1.5.1 Preconstruction Survey and Protection of Features

Prior to start of any onsite construction activities, perform a Preconstruction Survey of the project site with the Contracting Officer, and take photographs showing existing environmental conditions in and adjacent to the site. Submit a report for the record. Include in the report a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. The Contractor and the Contracting Officer will sign this survey report upon mutual agreement regarding its accuracy and completeness. Protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference that their preservation may cause to the work under the Contract.

1.5.2 Environmental Brief

Attend an environmental brief to be included in the preconstruction meeting. Provide the following information: types, quantities, and use of hazardous materials that will be used; and types and quantities of wastes/wastewater that may be generated during the Contract. Discuss the results of the Preconstruction Survey at this time.

Prior to initiating any work on site, meet with the Contracting Officer Representative to discuss the proposed Environmental Protection Plan (EPP)

or equipment local requirement. Develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural and cultural resources, required reports, required permits, environmental compliance requirements (such as mitigation measures), and other measures to be taken.

1.5.3 Non-Compliance Notifications

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with federal, state or local environmental laws or regulations, and other elements of the Contractor's EPP. The Contractor shall record on daily reports any problems in complying with laws, regulations and ordinances and corrective action taken. After receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. FAR 52.242-14 Suspension of Work provides that a suspension, delay, or interruption of work due to the fault or negligence of the Contractor allows for no adjustments to the contract for time extensions or equitable adjustments. In addition to a suspension of work, the Contracting Officer may use additional authorities under the contract or law.

1.6 ENVIRONMENTAL PROTECTION PLAN

The purpose of the EPP is to present an overview of known or potential environmental issues that must be considered and addressed during construction. Include in the EPP measures for protecting natural and cultural resources, required reports, and other measures to be taken. Ensure construction related efforts comply with the ADEM water quality certification, USEPA conditions, USFWS and NMFS requirements, laws, and regulations. Meet with the Contracting Officer or Contracting Officer Representative to discuss the EPP and develop a mutual understanding relative to the details for environmental protection including measures for protecting natural resources, required reports, and other measures to be taken. Submit the EPP not less than 7 days before the preconstruction meeting. Revise the EPP throughout the project to include any reporting requirements, changes in site conditions, or contract modifications that change the project scope of work in a way that could have an environmental impact. No requirement in this section will relieve the Contractor of any applicable federal, state, and local environmental protection laws and regulations. During Construction, identify, implement, and submit for approval any additional requirements to be included in the EPP. Maintain the current version onsite.

The EPP includes, but is not limited to, the following elements:

1.6.1 General Overview and Purpose

1.6.1.1 Descriptions

The Contractor shall prepare a listing of resources needing protection (i.e., upland vegetation, wetlands, oyster reefs, landscape features, air quality, noise levels, surface and groundwater quality, fish and wildlife, and historical, archeological and cultural resources) within authorized work areas. The Contractor shall detail special provisions taken to meet Federal, state, and local laws and regulations regarding the storage and handling of solid and hazardous waste materials.

1.6.1.2 Duties

The duties and level of authority assigned to the person(s) on the job site who oversee environmental compliance, such as who is responsible for adherence to the EPP, who is responsible for spill cleanup and training personnel on spill response procedures, who is responsible for manifesting hazardous waste to be removed from the site (if applicable), and who is responsible for training the Contractor's environmental protection personnel.

1.6.1.3 Procedures

A copy of any standard or project-specific operating procedures that will be used to effectively manage and protect the environment on the project site.

1.6.1.4 Communications

Communication and training procedures that will be used to convey environmental management requirements to Contractor employees and subcontractors.

1.6.1.5 Contact Information

Emergency contact information contact information (office phone number, cell phone number, and e-mail address).

1.6.2 General Site Information

1.6.2.1 Work Area

Work area plan showing the proposed activity in each portion of the area and identify the areas of limited use or nonuse. Include measures for marking the limits of use areas, including methods for protection of features to be preserved within authorized work areas and methods to control runoff and to contain materials on site, and a traffic control plan.

Show where any fuels, hazardous substances, solvents, or lubricants will be stored. Provide a spill plan to address any releases of those materials.

1.6.3 Prevention of Releases to the Environment

The Contractor shall prepare a contaminant prevention statement that identifies all potentially hazardous substances on the job site and the intended actions to be taken to prevent the accidental or intentional introduction of such materials into the air, the water, or the ground. The statement shall discuss procedures to prevent releases to the environment and notifications in the event of a release to the environment. The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures identified in the environmental protection plan.

1.6.4 Clean Air Act Compliance

1.6.4.1 Pollution Generating Equipment

Identify air pollution generating equipment or processes that may require

federal, state, or local permits under the Clean Air Act. Determine requirements based on the impacts of the project. Ensure required permits are obtained prior to installing and operating applicable equipment/processes.

1.7 LICENSES AND PERMITS

Obtain licenses and permits required for the construction of the project and in accordance with FAR 52.236-7 Permits and Responsibilities. Notify the Government of all equipment that may require permits or special approvals that the Contractor plans to use on site. This paragraph supplements the Contractor's responsibility under FAR 52.236-7 Permits and Responsibilities.

a. The following environmental compliance documents have been obtained by the Government:

(1) Alabama Department of Environmental Management (ADEM) Water Quality Certification
(2) U.S. Fish and Wildlife Service - Section 7 of the Endangered Species Act
(3) National Marine Fisheries Service, Protected Resources Division- Section 7 of the Endangered Species Act
(4) U.S. Environmental Protection Agency, Region 4 - Section 103 of the Marine Protection Research and Sanctuaries Act

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PROTECTION OF NATURAL RESOURCES

Minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. The protection of rare, threatened, and endangered animal and plant species identified, including their habitats, is the Contractor's responsibility. The Contractor shall take all necessary precautions to ensure that maintenance and new work dredging activities do not adversely impact any listed threatened and/or endangered species protected under the Endangered Species Act The following species are known and could be affected within the construction area: manatees, sea turtles, Giant manta ray, and the Gulf sturgeon.

Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work that is consistent with the requirements as otherwise specified. Confine construction activities to within the limits of the work indicated or specified.

3.1.1 Fish and Wildlife

The Contractor shall take all necessary precautions to ensure that activities conducted during the course of this project do not adversely impact listed threatened and endangered species or their critical habitats. The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, sea turtles, Giant manta ray, and the Gulf sturgeon in the area, and the need to avoid collisions with and harming these animals. All construction personnel shall be advised that there are

civil and criminal penalties for harming, harassing, or killing manatees, sea turtles, Giant manta ray, Gulf sturgeon, dolphins or whales which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. The Contractor must take special precautions to ensure adequate protection for wildlife resources.

(1) The Contractor shall coordinate all activities associated with these resources with the Coastal Environment Team, Mobile District (Attn: Ms. Jennifer Jacobson, PD-E at (251)690-2724 or cell (251)472-7589 or Mr. Don Mroczko, PD-EC at 251-690-3185.

(2) If a collision occurs or a dead manatee, sea turtle or Gulf sturgeon is observed, a Stranding Report form should be completed and filed with NOAA. A copy of the form can be found at the Sea turtle stranding and salvage network (STSSN) website at: https://www.nrc.gov/docs/ML1434/ML14345A279.pdf

(3) Any collision with and/or injury to a manatee shall be reported immediately to the U.S. Fish and Wildlife Service in Daphne (251-441-5181). The Contractor shall also notify the Contracting Officer or Contracting Officer Representative within 24 hours. Also provide a copy to Mobile District Coastal Environment Office, Ms. Jennifer Jacobson at: Jennifer.L.Jacobson@usace.army.mil

(4) If a live turtle is recovered from the dredge it shall be immediately transported by a NMFS permitted and approved protected species Observer to the nearest sea turtle and marine mammal rehabilitation facility such as the Institute for Marine Mammal Studies (MMS), 10801 Dolphin Ln, Gulfport, MS 39503, 1-888-767-3657, or 1-228-896-9182 and email contactus@imms.org. Also notify the USACE, Mobile District, Chief of Coastal Environmental, PD-E, Ms. Jennifer Jacobson, 251-690-2724, or cell 251-472-7589, Jennifer.L.Jacobson@usace.army.mil and Mr. Don Mroczko, 251-690-3185, donald.e.mroczko@usace.army.mil.

3.1.1.1 Protection of Manatees

Where manatees are known to occur and/or at required navigation channel designated by U.S. Fish and Wildlife Service, as stated in the Manatee Protection Guidelines 10(a) below and in the Environmental Appendix Cooperating Agency Certifications, in order to ensure that manatees are not adversely affected by the dredging and disposal activities authorized by this contract, the Contractor must utilize the State and/or USFWS Standard Manatee Construction Conditions.

The manatee is a designated Threatened mammal protected by Federal and State Laws. The Contractor shall observe the following precautions and other manatee precautions as stipulated by the regulatory agencies for the project:

(1) Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to, or exit from, essential habitat.

(2) All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels

will follow routes of deep water whenever possible.

(3) If manatees are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure their protection. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.

(4) Manatee Signs: Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station, or in a prominent location visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" shall be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. IDLE SPPED IS REQUIRED IF OPERATIING A VESSEL IN THE CONSTRUCTION AREA. ALL EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION. ALL COLLISIONS WITH AND/OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE USFWS IN DAPHNE (251-441-5181)" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction.

(5) Manatee Sighting Reports: Any collisions with a manatee, or sighting of any injured or incapacitated manatee, shall be reported immediately to the Contracting Officer or their appointed representative.

(6) Report Submission: The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. All data in original form shall be forwarded directly to the Mobile District, Planning and Environmental Division, Coastal Environment Team, P.O. Box 2288 Mobile, Alabama 36628-0001, (Attn: Mr. Don Mroczko) and the Area Engineer within 10 days of collection.

3.1.1.2 Use of Cutterhead Dredge

When using cutterhead dredging equipment, to minimize the potential of intercepting sea turtles/Gulf sturgeon, every effort shall be made to minimize pump operation while the dragheads/cutterheads are suspended in the water column including but not limited to the following:

(1) When initiating dredging, suction through the cutterhead shall be allowed just long enough to prime the pumps. Then the cutterheads must be placed firmly on the bottom.

(2) When lifting the cutterhead from the bottom, suction through the cutterheads shall be allowed just long enough to clear the lines, then must cease.

(3) Pumping water through the cutterhead shall cease while maneuvering or during travel to/from the placement area.

(4) Raising the cutterheads off the bottom to increase suction velocities is not acceptable.

(5) During turning and repositioning operations the pumps must either be shut off or reduced in speed to the point where no suction velocity or vacuum exists.

3.1.1.3 Use of Hopper Dredge

When using a hopper dredge, the Contracor shall implement the following:

3.1.1.3.1 Laws and Regulations

(1) The Contractor shall adhere to all Federal, State, and local laws and regulations including the Gulf of Mexico Regional Biological Opinion (GRBO) (2003, as amended in 2005 and 2007).

3.1.1.3.2 Shutdown Procedures

The Contracting Officer will direct the contractor as to any required shutdown procedures or necessary changes in dredge operation as to reduce the likelihood of additional incidents. The contractor shall suspend dredging immediately if:

(1) Two or more turtle incidents occur within 24 hours

(2) Two turtles incidents, of the same species, occur during dredging

(3) Four turtle incidents, regardless of species, occur during dredging

(4) One gulf sturgeon incident during dredging

3.1.1.3.3 Observers

The contractor shall supply NMFS-approved protected species observers to be aboard the hopper dredges to monitor the hopper dredged material, screening, and dragheads for sea turtles and Gulf sturgeon. Observer coverage shall be 100 percent (24 hr/day). During transit to and from the placement area, the observer shall monitor from the bridge during daylight hours for the presence of endangered species. During dredging operations, while dragheads are submerged, the observer shall continuously monitor the inflow and/or overflow screening for turtles and Gulf sturgeon and/or parts of these species. Upon completion of each load cycle, dragheads should be monitored as the draghead is lifted from the sea surface and is placed on the saddle in order to assure that any sea turtle that may be impinged is not lost or un-accounted for. Observers shall physically inspect dragheads and inflow and overflow screening/boxes for threatened and endangered species takes.

3.1.1.3.4 Operations and Dredging Endangered Species System (ODESS) Reporting

The ODESS system, which consists of a tablet computer with an Internet connection, shall be a standalone system, exclusive to other systems, and shall have USACE ODESS data collection and reporting software, referred to

as the ODESS Field collector (FC) tool, installed by USACE ODESS support personnel. In the event hardware or software problems prevent the storage or transmission of the collected data, paper copies of the latest ODESS forms and information shall be maintained and submitted to ODESS support and the USACE Inspector or Contracting Officer Representative according to the schedule outlined in the contract specifications. Hardware and Software requirements for the system can be found at the end of this section.

Prior to the initiation of the project, Observers shall be familiar with the operation of the ODESS FC tool and proficient in its use so as to be able to prepare and transmit the results of their observations. ODESS system webinar training can be requested by contacting ODESS Support at ODESS@usace.army.mil or 1-877-840-8024.

Depending on the target audience (Observer, dredging Contractor, USACE District personnel, or other Federal agencies), ODESS training could, in addition to the webinar training, consist of demonstrating the steps involved in setting up the FC tool on the dredge, loading Observer-collected data and attachments into the FC tool, submitting these data and attachments to the ODESS database, and/or navigating around the ODESS public website to view and pull down data and/or decision-making information for later analysis.

3.1.1.3.4.1 ODESS Monitoring Reports

Observers shall record the results of the threatened and endangered species monitoring in the ODESS system by filling in the appropriate electronic forms on the ODESS FC tool and transmitting the data to the ODESS database. If there is an issue with recording data straight to the FC tool due to the logistical nature of how the Observer is collecting this data, paper copies of these forms can be downloaded from the ODESS public website (http://dqm.usace.army.mil/odess/#/download) and later entered into the FC tool when the Observer has the best opportunity.

Prior to the start of dredging, Observers shall verify that the ODESS FC tool is installed and operational on a dredge's dedicated tablet computer and that a viable Internet connection is available. In addition, before a project is initiated, on the ODESS FC tool homepage Observers shall retrieve (or "pull down") project-specific information from the ODESS database and perform a one-time setup of the dredging project by establishing the dredge name and time zone. During the project, the following forms shall be used in the FC tool and submitted to the ODESS database at the indicated reporting frequency:

(1) Load Data Form: Observers shall complete the Load Data Form, including a description of screen contents and sea conditions, based on their observations. This form shall be completed and transmitted to the ODESS database for each load. At the end of each Observer shift, or when an Internet signal is available (not to exceed 24 hours from the start of the shift), the Observer shall submit all of their Load Data Forms. If this is not possible due to hardware or software problems, the Observer shall revert to email submission of the forms to ODESS@usace.army.mil, Jennifer.L.Jacobson@usace.army.mil, and Donald.e.mroczko@usace.army.mil.

(2) Sea Turtle Incidental Data Form: If a sea turtle or its remains are identified during a load inspection, after the appropriate parties are notified via telephone, a Sea Turtle Incidental Data Form shall be

completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

(3) Sturgeon Incidental Data Form: If a sturgeon or sturgeon parts are identified during a load, after the appropriate parties are notified, a Sturgeon Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

(4) Marine Mammal Observation Data Form: If a large whale is observed, both the Dredge Load and the Marine Mammal Observation Data Forms shall be completed and submitted (not to exceed 12 hours after the observation) to ODESS Support at ODESS@usace.army.mil consistent with the endangered species compliance section of the contract specification.

3.1.1.3.5 Camera

The contractor shall provide a digital camera, with an image resolution capability of 300 dpi, in order to photographically report all incidental sea turtle and Gulf sturgeon takes during dredging operations. Immediately following an incidental take of a sea turtle or Gulf sturgeon, images shall be provided to accompany load data and incidental take forms submitted to the ODESS system. The nature of findings shall be fully described in the incidental take forms including references to photographs.

3.1.1.3.6 Screening

Sea turtle observers are required on hopper dredges and shall provide for 100% inflow screening of dredged material; 100% overflow screening is recommended. If conditions prevent 100% inflow screening, inflow screening may be reduced gradually, as further detailed in the following paragraph, but 100% overflow screening is then required.

3.1.1.3.6.1 Screen Size

The hopper's inflow screens shall have 4-inch by 4-inch screening. If the Contracting Officer Representative, in consultation with observers and the draghead operator, determines that the draghead is clogging and reducing production substantially, the screens may be modified sequentially: mesh size may be increased to 6-inch by 6-inch, then 9-inch by 9-inch, then 12-inch by 12-inch openings. Further clogging may compel removal of the screening altogether, in which case effective 100% overflow screening would be required. The Contractor Officer Representative shall request permission before doing so by contacting Mobile District Coastal Environmental Team (Ms. Jennifer Jacobson 251-690-2724) prior to the reductions in screening. The Contractor shall provide an explanation for such reduction in the dredging report.

3.1.1.3.7 Dredging Pumps

Standard operating procedure shall be that dredging pumps are disengaged

by the operator when the dragheads are not firmly on the bottom, to prevent impingement or entrainment of sea turtles within the water column.

3.1.1.3.8 Sea Turtle Deflector Requirements

3.1.1.3.8.1 Sea Turtle Deflecting Draghead

A state-of-the-art rigid deflector draghead must be used on all hopper dredges in all Gulf of Mexico channels and sand mining sites at all times of the year and shall be installed while performing hopper dredging operations under this contract. The contractor shall submit drawings showing the proposed sea turtle deflector device and its attachment to the equipment being used. Drawings submitted shall include the approach angle for any and all depths to be dredged during the dredging. A copy of the approved drawings and calculations shall be available on the vessel during the dredging.

3.1.1.3.8.2 Hopper Dredge Equipment

Hopper dredge drag heads shall be equipped with rigid sea turtle deflectors, which are rigidly attached. No dredging shall be performed by the hopper dredge without a turtle deflector device that has been approved by the Contracting Officer Representative.

3.1.1.3.8.3 Deflector Design

The leading v-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be designed to have a plowing effect of at least 6" depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle."

If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or cable front attachment point with a stop set to obtain the 6" plowing effect. This arrangement allows fine-tuning the 6" plowing effect for varying depths. After the deflector is properly adjusted there shall be NO openings between the deflector and the drag head that are more than 4" by 4".

3.1.1.3.9 Training for Hopper Dredge Personnel

The USACE may, as necessary, conduct thorough training on measures of dredge operation that will minimize takes of sea turtles and Gulf sturgeon. It shall be the goal of each hopper dredging operation to establish operating procedures that are consistent with those that have been used successfully during hopper dredging in other regions of the coastal United States, and which have proven effective in reducing turtle/dredge interactions.

3.1.1.3.10 Sea Turtle and Gulf Sturgeon Trawling and Relocation

Should any of the triggers identified in paragraph 3.1.1.3.2 occur, then trawling and relocation shall be conducted. The Contractor shall implement the following requirements for Trawling and Relocation:

3.1.1.3.10.1 Trawling Requirements

Relocation trawling shall be conducted to remove sea turtles (with the exception of leatherback sea turtles, which shall be photographed in the trawling net and immediately released in place, see below) and Gulf sturgeon from the construction areas during dredging to help prevent entrainment by the dredge. In addition, giant manta rays may be present in the work areas. Observers shall not handle giant manta rays or take any physical measurements. IF a giant manta ray is captured in the trawl it shall be photographed in the trawling net and immediately released in place. Trawling shall begin at least 12 hours prior to dredging. Based on the trawling results, the Government will decide if there is a need to continue trawling. Daily trawling results shall be sent to the USACE, Mobile District, Chief of Coastal Environmental, PD-E, Ms. Jennifer Jacobson, Jennifer.L.Jacobson@usace.army.mil and Don Mroczko, donald.e.mroczko@usace.army.mil. Based on the trawling results, the Mobile District, Planning Division, Coastal Environmental will decide on if there is a need to continue trawling. Methods and equipment shall be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Data on each tow shall be recorded in on Trawling Report form. The trawler shall be equipped with 60-foot nets constructed from 8-inch mesh (stretch) fitted with mud rollers and flats as specified in the Turtle Trawl Nets Specifications appended to the end of this Section. Paired net tows shall be made for 12 hours per day or night, as directed by the Contracting Officer or their appointed representative. The tows shall be performed in shifts, to be determined by the Contracting Officer or their appointed representative. The trawler shall be available for operation 24 hours a day. If two (2) separate trawlers are required, they shall operate side-by-side, as much as practicable. If multiple dredges are utilized, the trawler(s) shall be used for each dredge actively performing dredging operations. If the dredging operations are coordinated so that only one (1) dredge is actively dredging, trawler(s) shall be required for only that dredge. If dredging operations cease for a period of 12 hours or more, relocation trawling shall be conducted for a minimum of 4 hours prior to resuming dredging operations. The trawler(s) shall be positioned ahead of the hopper dredge and as close to the hopper dredge as safely possible to give maximum coverage ahead of the dredging cut. The dredge and trawler(s) shall work closely together to implement techniques and procedures that will minimize the opportunity for turtles and Gulf sturgeon to enter the dredging path between the trawler(s) and dredge. NOTE: ALL TRAWLING ACTIVITIES, VESSELS AND EQUIPMENT SHALL COMPLY WITH THE CONTRACTOR'S ACCIDENT PREVENTION PLAN AND THE REQUIREMENTS OF EM 385-1-1, U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL. Trawling shall be conducted with and against the tidal flow at a speed between 2.5 to 3.5 knots using repetitive 15- to 30-minute (total time) trawls in the work area. Trawl tow-time duration shall not exceed 30 minutes (doors in - doors out) and trawl speeds shall not exceed 3.5 knots. Positions at the beginning and end of each tow shall be determined from the Global Positioning System (GPS) equipment. Tow speed shall be recorded at the approximate midpoint of each tow. Acceptable GPS criteria shall be in accordance with EM 1110-1-1003, paragraph 5.3 and Table 5-1. This EM 1110-1-1003 can be located at the following website: http://www.publications.usace.army.mil/USACEPublications/EngineerManuals.aspx or can be purchased directly from the Government Printing Office by calling (202) 512-1800. The postal address is Superintendent of Documents, P. O. Box 371954, Pittsburgh, Pennsylvania 15250-7954 or on line at http://bookstore.gpo.gov/.

3.1.1.3.10.2 Water Quality and Physical Measurements

Water temperature measurements shall be taken at the water surface each day using a laboratory thermometer. Weather conditions shall be recorded from visual observations and instruments on the trawler. Weather conditions, air temperature, wind velocity and direction, sea state-wave height, and precipitation shall be recorded on the Trawling Report form. High and low tides shall be recorded.

3.1.1.3.10.3 Approved Sea Turtle Trawling and Relocation Supervisor

Trawling shall be conducted under the supervision of a crewmember that possesses the required permits for handling endangered species, experienced in sea turtle capture or is a NMFS-approved observer. A letter of approval from NMFS shall be provided to the Contracting Officer or their appointed representative prior to commencement of trawling.

3.1.1.3.10.4 Repair and Replacement of Damaged Trawl Nets

The Contractor, at the time of mobilization, shall provide trawl nets, which meet the requirements specified in the Turtle Trawl Net Specifications at the end of this section. Trawl nets that are damaged shall be repaired or replaced by the Contractor at no additional expense to the Government. Tools, supplies and materials for repairing nets shall be kept aboard the trawler. In the event of damage to trawl nets, one hour shall be allowed to either repair or replace them. The Contractor shall have at least one set of replacement nets immediately available at all times, to insure that the dredging work is not adversely delayed due to trawler down-time for replacing damaged nets. It is recommended that a second set of replacement nets be available aboard the trawler.

3.1.1.3.10.5 Equipment Breakdown

The contractor shall be placed in a non-pay status when trawling equipment breakdown is such that the trawler does not operate during the day. Pay time shall resume when trawling operations recommence.

3.1.1.3.10.6 Suspension of Dredging and Relocation Trawling

Should there be dangerously high seas that would cause the trawler to leave the dredging area when relocation trawling is required, the dredge may continue to operate, as long as no turtles or Gulf sturgeon are taken and subject to the discretion of the Contracting Officer.

3.1.1.3.10.7 Turtle Excluder Devices

Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) on hopper dredge dragheads must be obtained from NMFS (contact Ms. Kelly Shotts at Kelly.Shotts@noaa.gov). Any necessary State or Federal clearances for the capture and relocation of sea turtles shall also be obtained. Approvals shall be submitted to the Contracting Officer or their appointed representative prior to trawling.

3.1.1.3.10.8 Handling During Trawling

Sea turtles and sturgeon captured pursuant to relocation trawling shall be handled in a manner designed to ensure their safety and viability, and shall be released over the side of the vessel, away from the propeller,

and only after ensuring that the vessel's propeller is in the neutral, or disengaged, position (i.e., not rotating). Resuscitation guidelines are located in the Environmental Compliance Appendix. All leatherback sea turtles are to be photographed in the trawler net and immediately released in place (are not to be relocated).

3.1.1.3.10.9 Captured Turlte and Gulf Sturgeon Holding Conditions

Turtles and Gulf sturgeon may be held briefly for the collection of important scientific measurements, prior to their release. Captured turtles shall be kept moist, and shaded whenever possible, until they are released, according to the requirements below. Captured Gulf sturgeon shall be held in a suitable well-aerated seawater enclosure until they are released according to the requirements below.

3.1.1.3.10.9.1 Take and Release Time During Trawling: Turtles

Turtles shall be kept no longer than 12 hours prior to release and shall be released not less than three (3) nautical miles (nmi) from the excavation site. If two or more released turtles are later recaptured, subsequent turtle captures shall be released not less than (5) five nautical miles away. If it can be done safely and without injuries to the turtle, turtles may be transferred onto another vessel for transport to the release area to enable the relocation trawler to keep sweeping the dredge site without interruption. Minor skin abrasions resulting from trawl capture are considered non-injurious. Injured sea turtles shall be immediately transported to the nearest sea turtle rehabilitation facility. Also notify the Coastal Environmental Team, Mobile District, Ms. Jennifer Jacobson by phone at 251-690-2724 office or by email at Jennifer.L.Jacobson@usace.army.mil. Observer(s), or their appointed representative(s), shall transport injured turtles to a rehabilitation facility as soon as possible. The NOAA Fisheries-approved turtle transporters shall be used for this purpose.

Mississippi

Institute for Marine Mammal Studies (MMS)
10801 Dolphin Ln, Gulfport, MS 39503, phone 1-888-767-3657, or
1-228-896-9182 email contactus@imms.org.

FLORIDA (partial list)

Gulf World
15412 Front Beach Rd
Panama City Beach, FL 32413
Tel. 850-234-5271

Emerald Coast Wildlife Rescue
406 Mountain Dr
Destin, FL 32541
Tel. 850-/650-1880

Florida's Gulfarium
1010 Miracle Strip Parkway SE
Ft. Walton Beach, FL 32548
Tel. 850-243-9046

3.1.1.3.10.9.2 Take and Release Time During Trawling: Gulf Sturgeon

Gulf sturgeon shall be released immediately after capture, away from the dredge site, unless the trawl vessel is equipped with a suitable well-aerated seawater holding tank, container, trough or pool where a maximum of one sturgeon may be held for not longer than 30 minutes before it must be released or relocated away from the dredge site. Leatherbacks shall be photographed and then released in place.

3.1.1.3.10.10 Scientific Measures

When safely possible, all turtles (with the exception of leatherback sea turtles) shall be measured (standard carapace measurements including body depth), tagged, weighed, and a tissue sample taken prior to release. When safely possible, all Gulf sturgeon shall be measured (fork length and total length), tagged, weighed, and a tissue sample taken prior to release. Any external tags shall be noted and data recorded onto the Tagging form. Only NMFS approved protected species Observers or Observer candidates in training under the direct supervision of a NMFS-approved observer shall conduct the tagging/measuring/weighing/tissue sampling operations. All sea turtles and sturgeon shall be photographed and the photographs shall be submitted with the tagging and/or trawling reports.

3.1.1.3.10.11 Turtle Flipper External Tagging

All sea turtles captured by relocation trawling shall be flipper-tagged prior to release with external tags which shall be obtained prior to the start of dredging from the University of Florida's Archie Carr Center for Sea Turtle Research. The NMFS-approved protected species observer aboard these relocation trawlers shall flipper-tag with external tags (e.g., Inconel tags) captured sea turtles. Columbus crabs or other organisms living on external sea turtle surfaces may also be sampled and removed.

3.1.1.3.10.12 PIT Tagging

PIT tagging of sea turtles and Gulf sturgeon is not required if the NMFS-approved protected species observer does not have prior training or experience in said activity. However, if the observer has received prior training in PIT tagging procedures, then the observer shall PIT tag the animal prior to release (in addition to the standard external tagging):

(1) Sea turtle PIT tagging must then be performed in accordance with the protocol detailed at NMFS' Southeast Fisheries Science Center's web page: http://www.sefsc.noaa.gov/species/turtles/observers.htm.

(2) Gulf sturgeon PIT tagging must then be performed in accordance with the protocol detailed at the NMFS SERO PRD Web site.

(3) PIT tags used must be sterile, individually wrapped tags to prevent disease transmission. PIT tags should be 125 kHz, glass-encapsulated tags-the smallest ones made.

3.1.1.3.10.13 Other Sampling Procedures

All other tagging and external or internal sampling procedures (e.g., blood letting, laparoscopies, anal and gastric lavages, mounting satellite or radio transmitters, etc.) performed on live sea turtles or live sturgeon are not permitted unless the observer holds a valid sea turtle or sturgeon research permit authorizing this activity, either as the permit

holder, or as designated agent of the permit holder.

3.1.1.3.10.14 Trawler Reporting

At the end of each day, a report (including details about the tow, details about the turtles/sturgeons relocated, and all required photographs in .JPG or .PDF) shall be emailed by the Contractor to USACE, Mobile District, Chief of Coastal Environmental, PD-E, Ms. Jennifer Jacobson, Jennifer.L.Jacobson@usace.army.mil and Mr. Don Mroczko, donald.e.mroczko@usace.army.mil. The results of each trawl shall be recorded on the Trawling Report. Sample forms are provided in the Environmental Compliance Appendix. Following completion of the project, an electronic copy of the trawling reports shall be forwarded to USACE, Mobile District, Chief of Coastal Environmental, PD-E, Ms. Jennifer Jacobson, Jennifer.L.Jacobson@usace.army.mil and the CO within 10 working days of dredging completion.

3.1.1.3.11 Collateral or "Piggy Back" Research - Hopper Dredging/Trawling Relocation Only

Any sea turtle research activities proposed by the contractor, or outside parties, to be conducted in association with USACE funded actions, including endangered species monitoring, relocation trawling operations, or use of turtles acquired by these operations shall comply with the following general requirements, and any specific requirements developed by the Corps on a case-by-case basis as requests are received:

(1) The USACE shall be given at least 60 days to review and comment on any such research proposals. The point of contact for this review is Safra Altman (Safra.Altman@usace.army.mil) at the Engineer Research and Development Center (ERDC) in Vicksburg MS.

(2) No such research shall be conducted without the express consent of USACE.

(3) The USACE shall be given the opportunity to review and comment on any potential publication or interpretation of resulting data prior to release.

(4) The party or parties conducting the research shall possess a valid research permit pursuant to Section 10 of the Endangered Species Act; and will be responsible for any other Federal, State or local permits or authorizations required, including any requirement of the National Environmental Policy Act (NEPA).

(5) Any injuries, including lethal takes resulting from sea turtle handling activity beyond USACE contract requirements shall be the responsibility of the researcher.

(6) Acknowledgment that the research was conducted with the assistance of USACE shall be included in any resulting publication or report, at the discretion of USACE.

(7) Research activities shall not hinder USACE contracted operations, nor result in any additional cost to the Government;

(8) Research personnel not directly employed by USACE contractors or subcontractors shall not board contracted vessels without signing an appropriate waiver of liability and/or other documents required by

USACE.

3.1.1.3.12 PIT-Tag Scanning - Hopper Dredging/Trawling Relocation Only

All sea turtles (with the exception of leatherback sea turtles) and Gulf sturgeon captured by relocation trawling or hopper dredges shall be thoroughly scanned for the presence of PIT tags prior to release using a multi-frequency scanner powerful enough to read multiple frequencies (including 125 128, 134 and 400-kHz tags) and read tags deeply embedded deep in muscle tissue (e.g., manufactured by Trovan, Biomark, or Avid). Turtles whose scans show they have been previously PIT tagged shall be externally flipper tagged. The data collected (PIT tag scan data and external tagging data) shall be submitted to NOAA, NMFS, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149. All data collected shall be submitted in electronic format within 60 working days to Lisa.Belskis@noaa.gov; and Sheryan.Epperly@noaa.gov. Sea turtle external flipper tag and PIT tag data generated and collected by relocation trawlers shall also be submitted to the Cooperative Marine Turtle Tagging Program (CMTTP), on the appropriate CMTTP form, at the University of Florida's Archie Carr Center for Sea Turtle Research.

Gulf sturgeon data (PIT tag scan data and external tagging data) shall be submitted within 60 days of project completion to NOAA, National Marine Fisheries Service, Protected Resources Division, 263 13th Avenue South, St. Petersburg, Florida 33701, or by fax: (727)824-5309; or by e-mail: takereport.nmfsser@noaa.gov, Attn: Dr. Stephania Bolden.

3.1.1.3.13 Handling Fibropapillomatose Turtles

NMFS-approved protected species observers onboard a relocation trawler or hopper dredges are not required to handle or sample the viral fibropapillomatose tumors if they believe there is a health hazard to themselves and choose not to. When handling sea turtles infected with fibropapilloma tumors shall either: 1) clean all equipment that comes in contact with the turtle (tagging equipment, tape measures, etc.) with mild bleach solution, between the processing of each turtle or 2) maintain a separate set of sampling equipment for handling animals displaying fibropapilloma tumors or lesions.

3.1.1.3.14 Tissue sampling for Genetic Analyses: Hopper Dredging/Trawling Relocation Only

All alive or dead sea turtles (with the exception of leatherback sea turtles) and Gulf sturgeon captured by relocation trawling or dredging shall be tissue-sampled prior to release by a NMFS-approved protected species observer.

Sea turtle tissue samples shall be taken in accordance with NMFS' Southeast Fisheries Science Centers' (SEFSC) procedures for sea turtle genetic analyses (included in the Environmental Compliance Appendix). Tissue samples shall be properly stored and mailed within 60 days of completion of dredging project, to NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149.

Gulf sturgeon tissue samples (i.e., fin clips or barbel clips) shall be taken in accordance with NMFS SERO's Protected Resources Division's Gulf sturgeon Tissue Sampling Protocol found at NMFS SERO PRD Website. Tissue

samples shall be properly stored and mailed to SERO PRD (Attn: Dr. Stephania Bolden) within 60 days of dredging completion.

3.1.1.3.15 Equipment Lighting

During the sea turtle nesting season and emergence season May 1 to October 31, lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, COE EM 385-1-1, and OSHA requirements. Light intensity of lighting plants should be reduced to the minimum standard required by U.S. Coast Guard and/or OSHA for General Construction areas, in order not to misdirect sea turtles. Shields should be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area.

3.1.2 Flow Ways

Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish and wildlife, except as specified and permitted.

3.1.3 Vegetation

Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without the Contracting Officer's permission. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages unless authorized by the Contracting Officer. Where such use of attached ropes, cables, or guys is authorized, the Contractor is responsible for any resultant damage.

Protect existing trees that are to remain to ensure they are not injured, bruised, defaced, or otherwise damaged by construction operations. Remove displaced rocks from uncleared areas. Coordinate with the Contracting Officer to determine appropriate action for trees and other landscape features scarred or damaged by equipment operations.

3.1.4 Streams

Stream crossings must allow movement of materials or equipment without violating water pollution control standards of the federal, state, and local governments. Construction of stream crossing structures must be in compliance with all required permits including, but not limited to, Clean Water Act Section 404, and Section 401 Water Quality.

The Contracting Officer's approval and appropriate permits are required before any equipment will be permitted to ford live streams. In areas where frequent crossings are required, install temporary culverts or bridges. Obtain Contracting Officer's approval prior to installation. Remove temporary culverts or bridges upon completion of work, and repair the area to its original condition unless otherwise required by the Contracting Officer.

3.2 EROSION AND SEDIMENT CONTROL MEASURES

Provide erosion and sediment control measures at the placement site and along the pipeline routein accordance with state and local laws and regulations. Preserve vegetation to the maximum extent practicable.

3.3 PROTECTION OF WATER RESOURCES

The Contractor shall not pollute any water bodies including streams, lakes, bays, estuaries, or other marine or fresh waters with fuels, oils, trash, acids, or any other harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, state, county, and municipal laws concerning water pollution. The discharge of plastics of any kind within estuarine or marine waters is strictly prohibited. All work under this contract shall also be performed in such a manner that objectionable conditions will not be created in proximity to the project areas. The following requirements shall be followed:

1) The Contractor shall ensure dredging and the placement of material are in accordance with the plans and specifications included herein and shall be performed with minimum damage to the environment. No other areas are approved for the placement or excavation of material.

2) The Contract designates areas for placement of all dredged material. No other areas are approved for dredged material placement.

3) The Contractor must comply with all turbidity and monitoring standards and other specific conditions set forth in the water quality certification. Ambient turbidity levels shall not exceed background turbidity by more than 50 Nephelometric Turbidity Units (NTU). If turbidity resulting from the project exceeds these levels, the Contractor will cease activities until turbidity levels are in compliance. Should work stoppage occur, the Contractor will notify the U.S. Army Corps of Engineers [Contracting Officer and Planning and Environmental Division, Coastal Environment Team (ATTN: Ms. Jennifer Jacobson at 251-690-2724)]. Turbidity Monitoring Reports shall be emailed on a weekly basis to Ms. Jennifer Jacobson at Jennifer.L.Jacobson@usace.army.mil and Mr. Don Mroczko at Donald.e.mroczko@usace.army.mil.

4) Any material moved by the dredge, pipeline, or any other such equipment shall be moved in such a way that: a) material will not be placed outside of the placement site boundaries as specified by the Contract; and b) safeguards against excess turbidity and suspended solids entering any adjacent water body. Work shall be performed in such a way as not to impact local wetland areas.

5) Special measures shall be taken to prevent chemicals, fuels, oils, and greases at the open water and upland placement sites or along the pipeline from entering area waters, at all times.

6) The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in area designated by the Contracting Officer. The Contracting Officer shall approve all temporary movement or relocation of Contractor facilities.

7) Discharge of any pollutant into the watercourse is strictly prohibited, except as otherwise specified or allowed in other sections of the Technical Specifications.

3.4 MOBILE OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS)

Placement of the dredged sediments within the ODMDS will be conducted in

accordance with the conditions specified below in the Section 103 concurrence letter from U.S. Environmental Protection Agency (EPA) and the Site Management and Monitoring Plan (SMMP). Both of these documents are included in the Environmental Compliance Appendix.

3.4.1 Mobile Maintenance Ocean Disposal Conditions

1) A bathymetry survey of the ODMDS release zone will be conducted within three months prior to initiation of disposal activities.

2) A bathymetry survey of the ODMDS release zone will be conducted within thirty days of completion of disposal activities.

3) All disposal will be initiated at least 330 feet within the boundaries of the Mobile ODMDS.

AMENDMENT 0003
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3.4.2 Dredge Load Restrictions

Per letter (Concurrence of Proposed Disposal of Dredged Material from the Mobile Harbor Federal Navigation Project for Mobile County found in Appendix B) dated July 21, 2023, the EPA stated "Based upon our review of your request, as well as the supplemental information, the EPA has determined that the proposed material meets the Ocean Dumping Criteria (ODC). … Our concurrence is conditional on adherence to the load restrictions dictated by the Short-Term Fate (STFATE) model results. These load restrictions are necessary for the material to meet the ODC."

Mobile Harbor GRR - Phase 2B Dredge Load Restrictions			
Phase 2B Work Area	***Station ID***	***Dredge Unit***	***Load Restrictions (cy)***
Station 1538+00	***Station 1485+00 to Station 1628+00***	***7A***	***15,000***
(Dredge Unit 7A) to	***Station 1628+00 to Station 1670+00***	***7B (Sub-Unit 7C)***	***15,000***
Station 1778+49	***Station 1670+00 to Station 1715+00***	***7B (Sub-Unit 7D)***	***13,500***
(Dredge Unit 8)	***Station 1715+00 to Station 1760+10***	***7B (Sub-Unit 7E)***	***13,500***
	Station 1760+10 to Station 1873+00	***8***	***Excluded***

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AMENDMENT 0003

3.5 PROTECTION OF CULTURAL RESOURCES

3.5.1 Archaeological Resources

All items having any apparent historical or archeological interest, which are discovered in the course of any removing of material and placement

activities, shall be carefully preserved and protected. The Contractor shall leave the archaeological find undisturbed, secure the site to the extent reasonably possible, and immediately report the find to the Contracting Officer and Mobile District Archeological Staff (attn: Mr. Mike Malsom PD-EI, (251) 442-8853 and Dr. Patrick M. O'Day, PD-EI Cell(251)604-2159. Existing historical, archeological and cultural resources for avoidance within the Contractor's work area will be so designated by the Contracting Officer. The Contracting Officer will further coordinate with the Mobile District Archeological Staff to obtain the precise coordinates for avoidance areas if needed. Any new sites would be identified and adequately marked in the field for assessment by the USACE staff, and any known sites in the removal or placement footprint will be marked for avoidance prior to dredging.

If new and unanticipated Historic Properties are inadvertently discovered during implementation of the Undertaking, the Mobile District will cease all work in the vicinity of the discovery until it can be evaluated. If the property is determined to be NRHP eligible, the Corps shall consult with the SHPO, Federally Recognized Tribes, and other interested parties to develop a treatment plan according to Stipulation lv (Historic Properties Treatment Plan).

3.6 AIR RESOURCES

Equipment operation, activities, or processes will be in accordance with 40 CFR 64 and state air emission and performance laws and standards. All fuel burning equipment shall be properly maintained to prevent violations of State or Federal Air Pollution Standards or interference with inhabitants of the area by causing drastic changes in their accustomed environment. If burning is required, the Contractor should obtain a burn permit from the local fire department, if necessary. Daily inspections will be made of all fuel burning equipment. Immediate corrective action shall be taken if exhaust emissions are found to be excessive.

3.6.1 Dust Control

The Contractor shall be required to maintain all work areas within or outside of the project boundaries free from dust that would cause a hazard or nuisance to others.

3.7 WASTE MANAGEMENT AND DISPOSAL

3.7.1 Solid Waste Management

Solid waste shall be placed in containers that are emptied on a regular schedule. All handling and placement shall be conducted to prevent spillage and contamination.

3.7.1.1 Control and Management of Solid Wastes

Pick up solid wastes, and place in covered containers that are regularly emptied. Do not prepare or cook food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. At project completion, leave the areas clean. Employ segregation measures so that no hazardous or toxic waste will become co-mingled with non-hazardous solid waste.Solid waste disposal offsite must comply with most stringent local, state, and federal requirements, including 40 CFR 241, 40 CFR 243, and 40 CFR 258.

3.7.2 Control and Management of Hazardous Waste

Hazardous waste shall be stored, removed from the work area and disposed of in accordance with Federal, state and local laws and regulations.

3.7.2.1 Hazardous Waste/Debris Management

Identify construction activities that will generate hazardous waste or debris. Provide a documented waste determination for resultant waste streams. Identify, label, handle, store, and dispose of hazardous waste or debris in accordance with federal, state, and local regulations, including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268.

Manage hazardous waste in accordance with the approved Hazardous Waste Management Section of the EPP. Store hazardous wastes in approved containers in accordance with 49 CFR 173 and 49 CFR 178. Hazardous waste generated within the confines of Government facilities is identified as being generated by the Government. Prior to removal of any hazardous waste from Government property, hazardous waste manifests must be signed by personnel from the Installation Environmental Office. Do not bring hazardous waste onto Government property. Provide the Contracting Officer with a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in 40 CFR 372-SUBPART D.

3.7.3 Wastewater

3.7.3.1 Disposal of Wastewater

Disposal of wastewater must be as specified below.

3.7.3.1.1 Treatment

Do not allow wastewater from construction activities, such as onsite material processing, to enter water ways or to be discharged prior to being treated to remove pollutants. Wastewater shall be processed, filtered, ponded, or otherwise treated, if applicable, prior to release from project area into waterways. If applicable, the removed material placement operation return water shall not impact any areas of seagrasses, shellfish beds, or wetland areas. Dispose of the wastewater in accordance with 40 CFR 403, state, regional, and local laws and regulations.

3.8 SOUND INTRUSION

The Contractor shall keep dredging and placement activities under surveillance and shall exercise all necessary controls to minimize damage to the environment by noise from equipment and various activities. Areas that have noise levels greater than 85-dB continuously, or 140-dB peak (unweighted) impulse, must be designated as noise hazardous areas. These work areas must have caution signs displayed at the perimeter of the noise area indicating the presence of hazardous noise levels and requiring the use of hearing protection devices.

3.9 POST CONSTRUCTION CLEANUP

Clean up areas used for construction in accordance with Contract Clause: "Cleaning Up". Unless otherwise instructed in writing by the Contracting Officer, remove traces of temporary construction facilities such as haul

roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. Grade parking area and similar temporarily used areas to conform with surrounding contours.

-- End of Section --

SECTION 35 20 23.00 36

DREDGING
04/04

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

The descriptions and requirements below are general in nature and are supplied to allow the Contractor to develop a unit cost for dredging within the defined boundaries. For bidding purposes, it is the intent of the Government to issue a contract for deepening the Mobile Ship Channel in accordance with the specifications and drawings included herein. The work to be performed under this contract includes furnishing of all plant, labor, materials, and equipment and the performance of all work required for the construction of project improvements at Mobile Ship Channel in accordance with the contract drawings and specifications. The work includes dredging in the Mobile Ship Channel and the satisfactory disposal of all dredged materials. Allowable overdepth dredging is also included in the contract and will be paid for at the applicable required dredging rate.

1.2 REFERENCES

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2014) Safety and Health Requirements Manual

1.3 ORDER OF WORK

The Contractor shall control the order of work and shall submit a written order of work plan for the approval of the Contracting Officer's Representative prior to commencement of the work. This plan shall show the Contractor's delineated area to be used for disposal of dredged material from this work within the approved limits of the ocean dredge material disposal site (ODMDS) as shown on the contract drawings. The Contractor's Order of Work plan shall also include detail of the Contractor's operational method for dredging, dredged material transportation, and disposal method of all dredged materials. The Contractor shall determine the requirements for staging and fabrication areas for dredging equipment based on his proposed operational methods. Acquisition of real estate interests in any such area and/or required permits for the particular type land use shall be the sole responsibility of the Contractor, the Government being held harmless from any liability or legality of procurement, use, or restoration. Should the Contractor employ more than one dredge unit on the project, additional work locations shall be approved by the Contracting Officer's Representative. The Contractor shall give the Contracting Officer's Representative ten (10) days written advance notice of the date he plans to modify his order of work in order that required Government actions may be started sufficiently in advance of the Contractor's operations, including the installation of baselines and other survey controls.

1.4 CHARACTER OF MATERIALS

1.4.1 Logs of Borings and Laboratory Data.

The boring logs and lab data for this project are located in Appendix A of this specification. Locations of borings are shown within the contract drawings. The borings represent conditions at the time of drilling operations. The Contractor shall make his own interpretation(s) of this information in determining the character of materials to be dredged. All classifications of soils, both visual and laboratory, are in accordance with the Unified Soil Classification System, sompatible with ASTM D 2487.

1.4.2 Materials to Be Removed

Material to be removed under this contract (within the required dredging prisms) includes O&M material and new work, previously undredged material. Additionally, some large and small debris, not indicated on the boring logs or contract drawings, may exist within the limits of the required work. The Contractor may also find that the material to be removed contains various non-soil substances such as fibrous debris (trees, roots, stumps, etc.), metal cables, wire, rubble, etc. Records of previous dredging, consisting of cross sections, history cards and/or general data on past contract dredging, are available at the Irvington Site Office of the Mobile District, Corps of Engineers, 7861 13th Street, Irvington, AL 36544, (251) 957-6019.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. Submittals having an "OP" designation are to be submitted to the Operations Division, of the U.S. Army Corps of Engineers, Mobile District. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (App); G, OP

Order of Work Plan; G, OP

Quality Control Plan; G, OP

Survey Plan; G, OP

SD-05 Design Data

Before-Dredging Surveys; G, OP

After-Dredging Condition Survey; G, OP

Before-Disposal Condition Surveys; G, OP

After-Disposal Condition Surveys; G, OP

SD-07 Certificates

Manufacturer's guarantee; G, OP

SD-11 Closeout Submittals

Project Completion Report; G, OP

1.6 NOTICES

1.6.1 Start Work

The Contractor shall give the Contracting Officer's Representative ten (10) days written advance notice of the date he plans to begin dredging work in order that required Government actions, such as the installation of baselines and other survey controls, can be started sufficiently in advance of the Contractor's operations.

1.6.2 Work Hours

Should the Contractor elect to work on Sundays, holidays, or at night, advance notice of this intent shall be given the Contracting Officer's Representative within a reasonable time, specifying both the dates and hours of the proposed work. Notification is not meant to restrict the Conrtactor, but to allow the government time to coordinate quality assurance inspections. Adequate lighting to facilitate thorough inspection of night operations shall be provided by the Contractor at no additional cost to the Government.

1.7 GENERAL SAFETY REQUIREMENTS

The requirements of this paragraph shall be made part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

1.7.1 Accident Prevention Plan

An accident prevention program incorporating safety features and procedures from Engineer Manual EM 385-1-1, which are applicable to all aspects of the Contractor's dredging operations, is required. An accident prevention plan (app) describing the Contractor's accident prevention program shall be provided. In addition to these features, the safety requirements outlined in the following paragraphs shall be incorporated into the Contractor's accident prevention program.

1.7.2 Plant Fleeting Area

The Contractor shall designate a plant fleeting area within which all idle components of plant equipment shall be stored. The area shall be marked by "hazardous area" buoys, properly placed and marked with reflective tape to give adequate nighttime warning to mariners. In addition to these bouys, a lighted warning sign, as specified in Section 8.A. of EM 385-1-1, shall be prominently displayed on the equipment in the fleeting area. This sign shall be well lighted and have reflective borders. Multiple lengths of floating pipeline may be placed side-by-side within this fleeting area only if protected by a barge at each end, and shall not be placed in a manner so as to extend outside the barges. Floating pipeline within this fleeting area, not protected at each end by barges, may be placed in single rows and end-to-end only. The requirement for buoys and a lighted warning sign, as specified above, also applies to this configuration.

1.7.3 Dredge Pipeline Markings (Submerged and Floating)

Pipelines, for the purpose of critical markings, are defined as submerged and floating only. Submerged pipelines are defined as those that rest on, are positioned on, or are anchored to, the water column bottom at all times. Other pipelines are defined as floating for purposes of these markings requirements. These definitions apply whether there is dredge slurry flowing through the pipeline or not. Stored pipeline is covered elsewhere in this Section.

1.7.3.1 Submerged Pipeline Markings

The location or position of the entire length of submerged pipeline shall be marked with signs, buoys, lights, or flags as required by the U.S. Coast Guard (USCG) and as approved by the Contracting Officer's Representative. Signs, bouys, and flags shall be constructed of, or coated with, reflective material that can be detected by marine radar and is easily visible when illuminated by a spotlight beam. The local USCG and U.S. Army Corps of Engineers (USACE) have agreed that the following marking elements are sufficient:

One row of signs, buoys, lights of constant yellow color and of intensity sufficient to be visible for at least one mile on a clear night, flags, or an appropriate combination of these, more or less equally spaced along the submerged pipeline length in sufficient number to define the alignment (length and course) of the pipeline.

1.7.3.2 Floating Pipeline Markings

The position of the entire length of floating pipeline, both rubber and metallic, shall be marked with lights as required by the USCG and approved by the Contracting Officer's Representative. The local USCG and USACE have agreed that the following marking elements are sufficient and in accordance with 33 CFR 88.15:

a. one row of yellow lights, more or less equally spaced, which:

(1). flash 50 to 70 times per minute;

(2). are visible all around the horizon for at least 2 miles on a clear night;

(3). are not less than 1 meter nor more than 3.5 meters above the water surface;

(4). are sufficient in number to clearly show the pipeline's alignment (length and course). The lights shall be spaced not more than 10 meters apart where a pipeline crosses a navigable channel (see paragraph below for further lighting requirements of channel crossings).

b. two red lights at each end of the pipeline length, which are:

(1). visible all around the horizon for at least 2 miles on a clear night;

(2). stacked 1 meter apart in a vertical line with the lower light at the same distance above the water as the flashing yellow

lights along the rest of the pipeline.

1.7.4 Pipelines Crossing Navigable Channels

At navigable channel crossings, pipelines may be either of two types, submerged or floating (floating crossings are further defined as fixed and non-fixed opening types):

1.7.4.1 Submerged pipeline crossings

Submerged pipeline crossings shall meet the following requirements.

a. The pipeline shall be configured in such a fashion (joints, bends, etc.) that it allows a safe passageway to usual vessel traffic with dimensions equal to or greater than the project channel dimensions (bottom width, side slopes and depth);

b. The pipeline must have two lights at each side of the safe passageway, which are:

(1). visible all around the horizon for at least 2 miles on a clear night;

(2). stacked 1 meter apart in a vertical line with the lower light not less than 1 meter nor more than 3.5 meters above the water surface; and

(3). of red color matching the standard USCG channel marking convention.

1.7.4.2 Floating Pipeline Crossings

Floating pipeline crossings shall meet the following requirements:

Fixed, non-opening, drop loop crossings shall have two red lights stacked at each side of the safe passageway which meet the requirements of 1.7.4.1.b.(1)., 1.7.4.1.b.(2) and 1.7.4.1.b.(3) above, and have depth and width of the loop equal to or greater than the channel project dimensions.

Non-fixed, opening type crossings shall have two stacked red lights at each side of the to-be-presented safe passageway, which meet the criteria of 1.7.4.1.b.(1) and 1.7.4.1.b.(2) above, and have the capability to be quickly disconnected (opened), on proper notice by approaching traffic, to allow safe vessel passage.

1.7.5 Plant Inspection

All plants, in use or idle, shall be inspected at least once per shift by the Contractor inspector to assure that buoys, signs, and lights are in place and that all lights are operating properly. Daily reports by the Contractor shall identify inspection personnel and indicate the time of inspection of plant in use and in storage within the fleeting area. An adequate number of reserve batteries and lights shall be stored on the dredge(s) or on other readily accessible plant equipment at all times in order that non-functioning lights can be repaired or replaced.

1.7.6 Public Awareness

The Contractor shall facilitate public awareness of potential navigation hazards presented by dredge operation and plant storage within the fleeting area by ensuring that announcement of the beginning of work is carried by local newspapers, radio and television stations, and waterway user association publications. Details provided in the announcement shall include beginning date, work schedule, work location, fleeting area location, and recommended boat operation in the vicinity of work areas. Periodic work updates and/or status announcements shall be made whenever necessary and at least on a monthly basis throughout the term of this contract. The Contractor shall provide and maintain sturdy and prominently displayed "Warning Signs" at all public boat marinas within ten (10) miles of the dredging operations and plant fleeting area. The warning signs shall be constructed as prescribed on the drawing entitled "Warning Sign" bound herein. The signs shall have red lettering and castles on a white background with a red reflective border. The information provided on the signs shall be similar to that indicated on the drawing and shall include locations of dredging operations and plant fleeting areas, as applicable. The Contractor shall be responsible for keeping the warning signs updated with appropriate information identifying all active work sites under this contract.

1.8 SPECIAL SAFETY REQUIREMENTS

The requirements of this paragraph shall be made part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

1.8.1 General

As a part of the Accident Prevention Program submittal, the Contractor shall provide documentation of the "indoctrination" safety briefing for the particular job to be performed by each employee as referenced in Sections 01.B. of EM 385-1-1. This documentation shall include the employee's name, job title, date(s) of safety briefing, and subject(s) of each briefing. When an employee changes jobs, another "indoctrination" safety briefing for the new job shall occur, with the documentation appropriately updated. The Contractor shall ensure that every employee receives appropriate "on-the-job" safety briefings on the first day the employee returns from off-tour time, and regular safety briefings at least every seven (7) days for all on-tour employees. Applicable portions of Sections 01.B. of EM 385-1-1 are referenced. All such briefings shall be documented on the daily Contractor's Quality Control Report (QCR). The Contractor shall ensure that every supervisor located at the job site(s) attends a "staff" safety meeting held at least monthly. The purpose of these safety meetings shall be to review, plan, and establish safety activities for this project. Applicable portions of Sections 01.B. of EM 385-1-1 are referenced. Documentation of these meetings shall include the employees' names, job titles, dates of meetings, topics covered, summary of actions, and other appropriate information. All such meeting documentation shall be furnished as an attachment to the daily Contractor's Quality Control Report within three (3) days after the meeting. The Contracting Officer's Representative shall be notified of all safety briefings and meetings, and may attend any "indoctrination" safety briefing, "on-the-job" safety briefings or "staff" safety meetings. These briefings and meetings shall be conducted throughout all phases of this contract and shall include the Contractor and subcontractors.

1.8.2 Accident/Incident Investigation and Reporting

The Contractor shall designate a specific company officer as the investigating official referenced by Section 1 of EM 385-1-1. The investigation official shall attend the pre-construction conference. The investigating official's name and other pertinent information including company position, qualifications, experience, and training shall be listed in the Contractor's Accident Prevention Program when submitted for approval. All accidents and incidents shall be personally investigated by this official in accordance with the requirements of EM 385-1-1, and the requirements specified herein and at the pre-construction conference. The investigation official shall sign Block 15.c. of the ENG Form 3394 attesting to his personal participation in the accident or incident investigation process, the accident or incident cause analysis, and the accident or incident cause elimination plans anticipated or recommended. The completed, typed original of ENG Form 3394 shall be submitted to the Contracting Officer's Representative within 24 hours of the accident or Incident. All accidents and incidents shall be immediately reported to the Designated Government Representative. Accident and incident management shall be emphasized and will be further discussed at the Pre-Construction Conference.

1.8.3 Critical Lift Operations with Hoisting Equipment

All hoisting equipment used on this contract shall be performance- and operation-tested in accordance with EM 385-1-1. The planning and conduct of these tests shall be documented using the CRITICAL LIFT PLAN in accordance with EM 385-1-1. These tests shall be conducted for any CRITICAL LIFT OPERATION, i.e., when any one of the following conditions exists:

(a) Load to be lifted exceeds the original TEST LOAD (TEST LOAD or PERFORMANCE LOAD TEST is made at the beginning of the particular hoisting equipment's start-of-work on this contract).

(b) The operator will lose sight of the load during lift operation

(c) The lift operation requires two or more signal persons.

(d) The rigging procedures to be used on the lift operation are considered unusual.

(e) The operator or supervisor believes the lift operation should be considered CRITICAL.

The Contractor shall ensure that hoisting equipment operators have been proven competent prior to employment on this contract. A Resume' of each operator's competence (experience, training, etc.) shall be made part of the Contractor's Quality Control Plan referenced elsewhere in this specification. Hoisting equipment performing duty cycle activities shall undergo the critical lift operation testing procedure for each distinct type of duty cycle activity (dragline activity, clamshell activity, etc.) involved. When any of the conditions under which the original critical lift operation test was conducted for a piece of hoisting equipment changes, another critical lift operation test shall be planned, conducted and documented for that equipment. All documentation for critical lift operation tests shall become part of the permanent contract safety files. All actions specified in the paragraph entitled "General Safety

Requirements" shall be part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

1.9 INSPECTION OF PLANT

The dredge plant shall be inspected by the Contractor and will be inspected by the Contracting Officer's representative to insure that all dredging plant required under the contract has been mobilized and is in safe working condition.

1.9.1 Contractor's Obligation to Inspect

Before any mechanized equipment is placed in service, it shall be inspected and tested by the Contractor and certified to be in safe operating condition using the Safety Survey Checklist for Floating Plant and the Safety Inspection Checklist for Mobile Construction Equipment forms as prescribed by EM 385-1-1. Records of these tests and inspections shall be provided to the Government prior to Government inspection and shall be maintained at the site by the Contractor.

1.9.2 Government Safety Inspection

Upon completion of mobilization, before starting work, and after the checklist forms are provided to the Government, a safety inspection will be conducted by the Government. The safety inspection will be conducted using the checklists as a guide to denote any deficiencies. Inspections performed by the Government do not relieve the Contractor of his responsibility to perform his own inspections of plant to assure a safe working environment at all times in accordance with contract specifications, EM 385-1-1 and his Accident Prevention Plan.

1.9.3 Hopper Leakage Test

During the safety inspection, the dredge will be required to take on water equivalent to the hopper capacity. In order for the dredge to begin work, it must have no more than a 5% loss in a one hour period. This test may be performed again at any time during the contract when an indication of leakage exists. Should the dredge fail said test, no dredging will take place until the leakage is repaired.

1.9.4 Clearance to Begin Work

Upon completion of the Government's safety inspection, a list of deficiencies, if any, will be given to the Contractor for corrective action. If, in the opinion of the Contracting Officer's Representative, the plant is unsafe or does not meet the terms of the specifications, clearance to begin work will be withheld. In the absence of deficiencies, the plant will be released to begin work. Inspections performed by the Government do not relieve the Contractor of his responsibility to perform his own inspections of plant to assure a safe working environment at all times in accordance with contract specifications, EM 385-1-1 and his Accident Prevention Plan.

1.9.5 USCG Operator's License

If Dredge (or other marine construction) Plant operation support workboat operators are moving dredge equipment, supplies, personnel, etc. in/at the immediate dredging site, i.e., from one side of the channel to the

opposite side, or to/from a shore staging area located not more than approximately ½ mile from the dredge work location/operation and always within sight of the dredge operator, then the work boat operator need not be the holder of a USCG Operator's license. However, if the workboat moves equipment, personnel, supplies, etc., or proceeds "light boat", any significant distance beyond the immediate dredge work location/site, particularly over congested, busy waterways and/or out of sight of the dredge operator, an appropriate licensed operator (must possess a current USCG Operator's License) must be in control of the vessel operation. References: EM 385-1-1 Section 19 Paragraph 19.A.02 b., Volume III of the USCG Marine Safety Manual Section 24.B.3, 46 USC 8904.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 DREDGING

3.1.1 General

Dredging under this contract shall include removal, transportation, and satisfactory disposal of dredged materials described herein and shown on the contract drawings. Dredging limits shown on the contract drawings were determined based on surveys current during the development of these specifications. The following web site links contain files of the most recent hydrographic surveys for the channel. These surveys and data are provided for information only and may not reflect the current conditions.

Mobile Ship Channel
https://www.arcgis.com/apps/opsdashboard/index.html#/4b8f2ba307684cf597617bf1b6d2f85d

AMENDMENT 0003
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3.1.2 Required Dredging

The contract prices shall include the cost of performing the work described below and shown on the contract drawings. Required dredging under this contract includes all material lying within the designated side slopes of one foot vertical to five feet horizontal (1V to 5H) originating at the plane of elevation -52 feet MLLW from Station 1538+00 to Station 1760+09.29~~ at the widths shown on the contract drawings~~. Required dredging between Station 1760+09.29 to Station 1778+49 includes material in the designated side slope of one foot vertical to seven feet horizontal (1V:7H) originating at the plane of elevation -54 feet MLLW~~, at the widths shown on the contract drawings~~. ***Contracted channel width provided on the plans originates at -50 feet MLLW from Station 1538+00 to Station 1760+09.29 and -52 feet between Station 1760+09.29 to Station 1778+49.***

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AMENDMENT 0003

3.1.2.1 Side Slope Excavation

Side slope material will be required to be removed when designated as such. Material that is actually removed, within the required dredging limits to provide for final side slopes no flatter than as designated, but not in excess of the amount originally lying above this required dredging

limiting side slope, will be estimated and paid for (as applicable), whether dredged in the original position or by dredging "storage space" below the required side slope plane, at the bottom of the slope, for upslope material capable of falling into the cut. This "storage space", excavated in anticipation of upslope face material falling thereinto, is not subject to the above depth and width overdredging restrictions (if applicable), as long as it is reasonable. The Contractor should refer to the typical section included in the contract drawings for the required dredging and allowable overdepth.

3.1.3 Allowable Overdepth

To accommodate the imprecision of the dredging process, material removed from within the Mobile Ship Channel alignment limits to a depth of 2 feet below the depth of required dredging will be estimated and paid for at the contract unit price for dredging. Side slopes for allowable overdepth will be 1V:0H. The Contractor shall not exceed 2 feet of allowable overdepth dredging.

AMENDMENT 0003
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3.1.4 Dredge Material Overflow

Overflow will be limited to forty-five minutes per load, for hopper dredges unless otherwise approved by the COR. Overflow will only be allowed ~~for material that is predominantly sand~~ ***if the standards and conditions for turbidity, outlined in Section 01 57 19, paragraph 3.3, can be met.*** This slurry shall not overflow transport vessel sidewalls while in transit, nor shall it be dumped (or pumped) from the vessel except when placed directly at an authorized disposal area. Mechanical dredge bucket dripping occurring between the excavation point and deposition into dump scows will not be considered overflow.

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AMENDMENT 0003

3.1.5 Excessive Dredging

Material removed from beyond the dredging limits shown on the contract drawings shall be considered excessive dredging for which payment will not be made. Payment will be made for removal of shoals performed in accordance with the applicable provisions of the Additional Special Contract Requirements paragraph entitled "FINAL EXAMINATION AND ACCEPTANCE".

3.2 DISPOSAL OF DREDGED MATERIALS

3.2.1 General Requirements

All excavated material shall be transported to, and disposed of, in the proper disposal areas as described below. The Contractor shall develop disposal procedures based on these requirements. Costs associated with the requirements of disposal of dredge materials shall be included in the Bidding Schedule unit price for dredging.

3.2.2 Deposition Plan

A deposition plan, based on the requirements and limitations specified hereinafter, shall be submitted by the Contractor (as a part of the requirements in the paragraph entitled "ORDER OF WORK") to the Contracting Officer's Representative for approval prior to disposal of any dredged material under this contract. The Contractor shall delineate within the approved limits of the ODMDS, as shown on the contract drawings all areas to be used for disposal of dredged material from this work. The Contractor's deposition plan shall include location and methods of disposal of all dredged material from this contract. The Contractor's disposal plan shall be completely explanatory and shall include all assumptions, statements of fact, computations, and a narrative to fully explain the procedures to be followed during the contract in compliance with the specified method of disposal of dredged material. The Contractor's deposition plan shall address each different disposal situation and include any required monitoring, preparation, or operation and maintenance actions involved. Bids received will be based on using the disposal areas described below.

3.2.3 Plant Equipment Layout

The Contractor shall be responsible for selection of a method of construction and/or plant equipment layout that will not cause a hazard to existing navigation nor unduly restrict marine traffic, particularly in the marked navigation channels and the adjacent private docking/mooring fairways.

3.2.4 Dredge Material Disposal Areas

The Contractor shall delineate within the limits of the ODMDS as shown on the contract drawing sheet CN106 all areas to be used for disposal of dredged material from this work. The Contractor shall ensure depostion is within the limits of the ODMDS and the Contracting Officer's approved delineated disposal boundary. Disposal shall occur no less than 330 feet inside the site boundaries of the ODMDS as shown on the contract drawings. Dredged material shall be placed so that at no point will depths less than -30 feet mean lower low water (MLLW) occur (i.e., a clearance of 30 feet above the bottom will be maintained).

3.2.5 Misplaced Dredged Materials

Any dredged materials deposited at locations or elevations other than those designated or approved by the Contracting Officer's Representative shall be considered misplaced material and shall not be paid for until the Contractor, at his expense, removes and redeposits such misplaced material where directed. Misplaced material will be quantified by volumes calculated from hydrograph surveys and/or DQM measurements. Required removal and redeposit of the misplaced material and any necessary disposal site restoration work shall not be the basis for a time extension or additional compensation under this contract.

3.2.6 Disposal of Debris and Obstructions

Debris, such as stumps, roots, logs, and any other objects except archeological or historical resources unearthed during dredging operations shall be removed, transported, and satisfactorily disposed of within an upland off-site disposal area secured by the Contractor. Archeological and historical resources shall be addressed as specified in Environmental

Protection Paragraph entitled "RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS". Removal and disposal of debris and obstructions shall not be measured separately for payment but shall be considered subsidiary to dredging. Removed debris may be temporarily stored until the upland off-site disposal area has been secured by the Contractor. Debris disposal areas shall be approved by the Contracting Officer's Representative prior to use by the Contractor. All costs associated with the required disposal of debris shall be included in the contract unit price for dredging in the Bidding Schedule.

3.2.7 Disposal Operation Verification

3.2.7.1 General

For the transport and deposition of dredged materials, the Contractor shall operate under the requirements of SECTION 35 20 23.13, NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SCOW - ULLAGE PROFILE, SECTION 35 20 23.23, NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM HOPPER DREDGE, and SECTION 35 20 23.33, NATIONAL DREDGING QUALTIY MANAGEMENT PROGRAM PIPELINE HYDRAULIC DREDGE.

3.2.8 Turbidity Monitoring

The contractor shall monitor turbidity in the work area throughout the life of the contract to ensure the Contractor complies with permit requirements. Turbidity shall be taken once daily, beginning at least two hours after dredging begins during daylight dredging and disposal activities. The Contractor shall utilize a turbidity meter equivalent to the HACH 2100 Portable Turbidimeter for this purpose. Suspension of work resulting from this monitoring shall not be a basis for increase of the contract price or contract duration. Turbidity reports shall be submitted daily to the government representative.

3.3 REPORTING REQUIREMENTS

The Contractor shall prepare and submit a Report of Operations and a Contractor's Quality Control (CQC) Report daily. The reports shall be developed in accordance with SECTION 01 45 00.15 10.The Contractor reports shall be prepared for all dredging work activities. A sample of each form for recording the required information is bound herein. In addition to the two daily dredging reports required, the Contractor shall submit a monthly report of operations covering each month or partial month's work on the ENG No. 4267 and/or 27a. The monthly reports shall be submitted to the Contracting Officer's Representative on or before the seventh (7th) day of each month, consolidating the previous month's work. Upon completion of the contract, the Contractor shall submit a consolidated job report, combining the monthly reports. These reports shall be submitted in duplicate, the original and one copy. The Contractor shall complete a narrative completion report combining all reports (696's, 4267's, etc.). The report shall be maintained throughout the life of the project. A draft shall be submitted bi-monthly, with the final narrative completion report being submitted at the end of the contract. The draft and final versions shall be submitted in electronic and hardcopy forms.

3.3.1 Contractor Construction Quality (CCQ) Management

The CCQ System Manager and designated alternates shall have completed the instruction course entitled "Construction Quality Management for Contractors". This course is offered periodically throughout the year at

various COE Districts. Upon successful completion of this course, a training certificate, with an expiration date five years from issue, will be awarded to participants. This certification shall be obtained not later than 60 calendar days after the issuance of Notice to Proceed. All costs associated with acquisition of this certification shall be borne by the Contractor.

3.4 DREDGING SURVEYS

3.4.1 General

The Government will furnish survey and dredging layout data for each dredging area tangent prior to any dredging. The data will be discussed at the pre-construction conference.

3.4.2 Survey Plan

The Contractor shall prepare and submit for approval of the Contracting Officer's Representative, a written survey plan, presenting the project survey effort from start to completion. The plan shall cover, as a minimum, layout work including baseline control, progress surveys, and monitoring surveys. The plan shall include details of all equipment used for surveying as well as a step by step process of survey efforts. This plan shall coincide with the order of work plan required by the paragraph entitled "Order of Work." The Contractor's survey plan shall show a percentage breakdown of each type of survey phase (baseline control, progress surveys, etc.) of the total survey effort for the project.

3.4.3 Layout of Work

All surveys for baselines, hydrographic survey ranges, cutting ranges, and other necessary survey work shall be performed by standard survey methods as referenced in the paragraph entitled "Soundings." All baselines and markers, whether land or water based, shall be related to existing land based survey markers using coordinate positions furnished by the Government. All such survey work shall be clearly and completely recorded in standard bound field books, and shall be made available for inspection and verification by representatives of the Government. Upon or before completion of the requirements of this contract, the field books and computations shall become the property of the Government. The Contractor shall furnish all electronic positioning and surveying equipment, stakes, poles, flagging, field books, compact discs, and other survey materials and engineering work required for the layouts. Costs associated with the required layout of work and positioning surveys, and all data compilation and computations shall be included in the Bidding Schedule contract unit price for dredging.

3.4.4 Electronic Positioning

While making required surveys, the Contractor shall use an electronic horizontal positioning system. The positioning system shall be range/range, range/azimuth, GPS, DGPS, etc., with manufacturer's guarantee of positional error not greater than 3 meters at any time after calibration.

3.4.5 Quality Control

The Contractor shall establish and maintain a quality control plan for surveying operations to assure compliance with contractual requirements.

The Contractor shall maintain records of quality control qualifications for survey personnel. These records shall include, but not be limited to, the following requirements:

(a) Survey work shall be performed in accordance with the USACE Hydrographic Surveying Engineering Manual, EM 1110-2-1003. The manual can be found at the following link:

https://www.publications.usace.army.mil/USACE-Publications/Engineer-Manuals/u43544

Sole responsibility for accuracy, completeness, and verification of all survey work performed during execution of this contract, with the exception of the initial and final quantity surveys performed by the Government, shall rest with the Contractor.

(b) Daily reports shall be submitted by the Contractor for days when surveying activity is required. The reports shall be prepared and signed by the Contractor's authorized representative. Report submittal to the Contracting Officer's Representative shall be on the duty day following the surveying activity. The reports shall include, but not be limited to, the following: equipment used; location, description, and type of work performed; inspection(s) of work; verbal instructions received and action(s) taken; safety procedures; and cause(s) of delays. All daily reports shall be prepared on SAM Form No. 696 (copy attached hereto).

(c) The Contractor shall be responsible for protection of all vegetation and property within surveying areas. Should any portion of the survey work area require tree trimming or cutting, or use of private property or facilities for any purpose, the Contractor shall obtain specific written consent from the affected property owner(s) prior to commencing any survey work within that area. The Contractor shall save and hold harmless the Government from any liability in connection with required survey activities.

(d) All survey work shall be subject to periodic inspection and verification by the Government, both during and after completion of such work. Should any portion of the surveys be found in error, it shall be the responsibility of the Contractor to correct such error at no cost to the Government. In the event that dredging operations have proceeded based on erroneous survey information, any necessary redredging shall be done at the Contractor's expense. The Contractor should perform verification calculations and calibrations of the survey data furnished by the Government prior to using that data for dredging purposes. All verification and calibration calculations shall be the sole responsibility of the Contractor. Presence of the Government representative at the work site shall not relieve the Contractor of responsibility for providing quality control of the required survey work and shall not relieve the Contractor from the responsibility of taking necessary corrective action should errors be discovered that necessitate redredging. The final determination of acceptable and unacceptable dredged channel sections will be made by the Contracting Officer's Representative.

3.4.5.1 Channel Surveys

The Government will perform before-dredging condition surveys and after-dredging condition surveys in accordance with Section 01 00 00, pargaph 1.10 FINAL EXAMINATION AND ACCEPTANCE, of the project excavation

limits. The contractor shall perform Construction Surveys for quality checks on the dredging depth and width behind the dredge as work progresses. The Contractor will take progress soundings or sweepings.

3.4.5.2 Surveys For Disposal Areas

The Contractor shall perform before-disposal condition surveys and after-disposal condition surveys along repeatable ranges covering the portion of the disposal area to be used for this contract and adjacent bottom within the limits specified herein. The required before and after condition surveys shall be referenced to MLLW. Before- surveys shall be performed within 30 days prior to commencement of disposal operations; the after-, within 5 days of completion of disposal operations at the disposal area. The surveys shall be oriented with ranges (cross sections) spaced four hunderd (400) feet apart and extending five hundred (500) feet beyond the approved disposal area limits for this contract. Surveys for open water disposal areas or monitoring areas, baselines, hydroranges, cutting ranges and all other necessary surveys shall be performed by standard survey methods as referenced in subparagraph (a) of the paragraph entitled "Quality Control" in this specification section. Depths shall be recorded at 25-foot intervals or less, to a vertical accuracy of 0.5 foot or less. The tide shall be observed and recorded at the beginning and end of surveys and each half hour during surveys. Tide elevations shall be read and recorded to the nearest 0.1 foot. All baselines and all markers, whether land or water based, shall be referenced to existing land based survey markers using channel centerline coordinates furnished by the Government. All poles, stakes, flagging, books, compact discs, and/or other survey materials shall be furnished by the Contractor. The Contractor shall submit the survey data in "raw" hardcopy form (fathometer charts, books, scrolls, etc.), plotted form, and in digital form on compact discs within five (5) working days of completion of the surveys. The data furnished on compact discs shall include Microstation CADD drawing files from which hardcopy drawing plots were made. These books and/or compact discs shall, upon or before completion of the requirements of this contract, become the property of the Government. All costs associated with the required surveys and data compilation shall be included in the unit price for dredging.

3.5 SOUNDINGS

Soundings for the original and final surveys for the dredged areas as required by the paragraphs entitled "DISPOSAL OF DREDGED MATERIAL" and "DREDGING SURVEYS" in this specification section shall be made by an electronic sounding device. The electronic sounding device shall be similar and equal to the Teledyne Odom Echotrac MKIII echo sounder fathometer depth recorder. All before- and post-dredging quantity computations will be based on high frequency surveys, unless otherwise directed by the Contracting Officer Representative. Automated hydrographic survey data acquired by the Contractor shall be furnished to the Government on compact discs in the form of CADD drawing files in Microstation format. Costs associated with the required soundings and data compilation will be included in the unit price for dredging.

3.5.1 Sounding Equipment

The sounding equipment will consist of a sounding machine/device capable of providing updated soundings on no more than 1/20 second intervals and have an accuracy rating of not less than +/-0.5 feet. Sounding device will have analog charting (real time) within the device and will have all

the capabilities of calibrating to a bar check utilizing the Norfolk Method of bar checking. All depths acquired will consist of dual frequency soundings utilizing a high operating 208 Khz frequency transducer and a low operating 41 Khz or 24 Khz frequency transducer. The high frequency soundings will be shown in conjunction with the 41 kHz soundings on the analog chart of the sounding device. All soundings will be acquired on a continuous basis with plotting of data based on the scale and size of the plot and in clearly legible print.

3.5.2 Acquired and Processed Data

The survey system employed shall use a computer and software capable of handling all required data points and the plotting of those points. If the Contractor is utilizing HYPACK to perform required surveys, the Contractor shall submit the HYPACK project files for the specific survey performed. These files contain all the files that make up the survey, including raw and edited line, log, and tide files associated with each survey, among others. Otherwise, the Contractor shall utilize a system capable of acquiring or converting all unedited raw data (horizontal and vertical) to an IBM ASCII-compatible format prior to submittal to the Government. The ASCII format shall be compatible with the MS DOS Operation system. Sounding files shall contain single line records. Each record shall contain the easting, northing, elevation, date, and time for one sounding. Items in each record shall be separated by space characters (ASCII 32 (10)) and records shall be terminated by a line feed with carriage return. Sounding files shall be no greater than 1.2 MB in size and shall contain the data for no more than 99 section lines. All records shall conform to the format below:

East	North	Elevation	Date	Time
123456.78	876543.21	-42.3	01/15/91	14:22:13.3

The survey system shall provide a means of plotting all data points for submittal in hard copy form according to the requirements listed herein. Routine/verification surveys shall be submitted within 24 hours of the survey and larger surveys shall be submitted within 48 hours of the survey. All plots shall be submitted on full size 22" x 34" (ANSI 'D' size) plot paper or half size, 11" x 17" if approved by the Contracting Officer's Representative, and shall include not less than the following: all navigation aids; a north arrow; station data (corrected to MLLW); date of survey; grid ticks; surveyor's name; vessel name; channel lines and any other pertinent information. The scale of plan view plots shall be 1" = 200' and of cross-sectional plots as specified by the Contracting Officer's Representative. Plan view plots shall delineate actual vessel track along the route taken and display depths acquired along the route at a clearly legible text size. Cross-section plots shall display the channel dimensions in a template format. Data files shall be provided on compact discs in the format previously specified and in unedited form. All hard copy submittals shall consist of edited data with all supporting field notes and scrolls. The Contractor's proposed digital data shall be submitted at the Preconstruction Conference for approval by the Contracting Officer's Representative.

3.5.3 Compilation of Processed Data

A compilation of all digital data (surveys, dredge electronic tracking, etc.) collected over the life of the contract by the Contractor shall be

consolidated on a CD, or multiple CD's if necessary, indexed in orderly fashion, e.g. type survey (D/A, channel, etc.), such that the overall data collection effort can be easily followed. The Contractor's proposed digital data CD indexing structure shall be submitted at the Preconstruction Conference for approval by the Contracting Officer's Representative. The Contractor shall submit the compiled digital data CD(s) at the completion of the contract.

3.6 NAVIGATION AIDS

If necessary, navigation aids located within or near the areas required to be dredged will be removed by the USCG in advance of dredging operations. Relocation of navigation aids shall be discussed and scheduled with the USCG at the pre-construction conference.

3.7 PROJECT COMPLETION REPORT

The Contractor shall submit a project completion report in Adobe PDF format to the Contracting Officer within 30 days following project completion. The Project Completion Report shall include but not be limited to the following:

(a) Names and titles of the project managers overseeing the effort, including contact information (telephone numbers, mailing addresses, and email addresses)

(b) Location and description of the project, including the final total volume of material extracted from the Mobile Harbor Channel and the volume of material actually placed into the ODMDS (including a description of the volume calculation method used to determine these volumes)

(c) Files containing the x, y, z and time stamp of the dredge locations (if applicable)

(d) Narrative describing the final, as-built features, boundaries

(e) A table, showing the various items of work construction, final quantities, and monetary amounts

(f) A listing of construction and construction oversight information, including the prime and subcontractor(s), contract costs, etc;

(g) A list of all major equipment used to construct the project

(h) A narrative discussing the construction sequences and activities, and, if applicable, any problems encountered and solutions

(i) A list and description of any construction change orders issued (if applicable)

(j) A list and description of any safety-related issues or accidents reported during the life of the project

(k) A narrative and any appropriate tables describing any environmental or compliance surveys or efforts associated with the project and costs associated with these surveys or efforts

(l) A table listing significant construction dates beginning with bid opening and ending with final acceptance of the project

(m) Digital appendices containing the as-built drawings, cross-sections, and survey data

-- End of Section --

US Army Corps
of Engineers®

MOBILE DISTRICT
109 SAINT JOSEPH STREET
MOBILE AL 36602

MOBILE HARBOR DEEPENING AND WIDENING PHASE 2B

MOBILE, ALABAMA

MOBILE DISTRICT PROJECT CODE : CHC22010

SOLICITATION NUMBER : W9127824B0002

MARCH 2024

AMENDMENT NO. 0003

SHEET REF.	TITLE OF DRAWINGS
G-002	INDEX OF DRAWINGS
G-003	GENERAL NOTES
CN101	PROJECT MAP
CN102	OVERALL DREDGE PLAN
CN103	PARTIAL DREDGE PLAN
CN104	PARTIAL DREDGE PLAN
CN105	PARTIAL DREDGE PLAN
CN106	DREDGE DISPOSAL AREA
CN301	TYPICAL DREDGE SECTIONS
CN302	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN303	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN304	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN305	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN306	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN307	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN308	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN309	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN310	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN311	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN312	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN313	LOWER BAY CHANNEL DREDGE CROSS SECTIONS
CN314	BAR CHANNEL DREDGE SECTIONS
CN315	BAR CHANNEL DREDGE SECTIONS
BR316	BORING PROFILE
BR317	BORING PROFILE
BR318	BORING PROFILE

1

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MARK	DESCRIPTION	DATE
1	AMENDMENT NO. 0002, REVISE DRAWING NAME	4/12/23

DESIGNED BY: J. BASS
DRAWN BY: J. GIBSON
CHECKED BY: J. BASS
SUBMITTED BY: M. WIGGINS
SIZE: ANSI D
ISSUE DATE: OCTOBER 2023
SOLICITATION NO.:
CONTRACT NO.: WXXXXX-XX-X-XXX
CADD CODE: CHC22010
IS/O SHEET FILE NAME: CHC22010-G-002.DGN

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL. 36602

MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING:
PHASE 2B

INDEX OF DRAWINGS

SHEET ID
G-002

AMENDMENT NO. 0003

GENERAL NOTES:

1. ALL ELEVATIONS SHOWN IN THIS PLAN SET ARE REFERENCED TO FEET IN MEAN LOWER LOW WATER (M.L.L.W.) DATUM.
2. ALL COORDINATES SHOWN IN THIS PLAN SET ARE IN FEET AND ARE REFERENCED TO ALABAMA STATE PLANE COORDINATE SYSTEM NAD 83 DATUM (0102) WEST ZONE.
3. THE HYDROGRAPHIC SURVEYS OF THE HARBOR CHANNELS IN THIS PLAN SET WERE PERFORMED ON NOVEMBER 22, 2023. THE SURVEYS FOR THE DISPOSAL AREA WERE PERFORMED SEPTEMBER 24 & 25, 2022. ALL SURVEYS WERE PERORMED BY THE IRVINGTON SITE OFFICE OF THE U.S. ARMY CORPS OF ENGINEERS.
4. THE INFORMATION DEPICTED IN THIS PLAN SET REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THE TIME.
5. FREQUENCY SOUNDINGS: 208KHZ
6. ALL UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL INVESTIGATE SUBMERGED, SURFACE, AND OVERHEAD STRUCTURES IN THE WORK AREAS IN ACCORDANCE WITH SECTION 01 00 00, PARAGRAPH 1.3(C), CONTRACTOR'S INVESTIGATION RESPONSIBILITY.
7. ONLY USACE GAUGES SHALL BE USED FOR REFERENCE UNLESS OTHERWISE APPROVED BY THE COR. GAUGE INFORMATION WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING.
8. CHANNEL COORDINATES ON SHEETS CN102 TO CN105 CORRESPOND TO THE ELEVATION OF THE NEW WORK DREDGE TEMPLATE (EL. -50' MLLW FOR THE LOWER BAY CHANNEL AND EL. -52' MLLW FOR THE BAR CHANNEL). SEE SHEET CN301 FOR TYPICAL DREDGE SECTION.

MOBILE HARBOR CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00.00	267145.47	1798020.87
30+38.38	264108.89	1798125.38
72+09.06	260026.86	1798980.75
75+09.16	259728.77	1799015.40
98+82.05	257371.75	1799289.35
105+53.94	256705.45	1799375.88
157+17.67	251589.58	1800077.25
198+76.99	247439.68	1799797.37
213+05.16	246045.01	1800104.88
244+65.83	243219.15	1801520.62
253+64.33	242321.22	1801488.67
259+30.00	241755.93	1801467.74
267+72.58	240913.92	1801436.88
302+72.59	237416.26	1801308.73
317+72.59	235917.26	1801253.80
404+67.98	227227.70	1800935.41
423+46.58	225350.36	1800866.62
1055+42.67	162421.95	1806677.00
1115+67.25	156398.05	1806586.50
1538+00.00	114515.26	1801160.91
1576+00.00	110746.75	1800672.73
1760+09.29	92490.01	1798307.71
1775+26.83	90984.40	1798117.75
1854+55.94	83147.48	1799323.38
1859+28.29	82675.54	1799303.76
2029+60.04	66091.47	1795424.45
2089+08.62	60301.94	1794058.08
2189+05.33	50923.23	1790597.75

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MARK	DESCRIPTION	DATE
1	AMENDMENT 0002, REVISED NOTE 3.	4/12/23

ISSUE DATE: OCTOBER 2023
SOLICITATION NO.:
CONTRACT NO.: WXXXXX-XX-X-XXX
CADD CODE: CHC22010
FILE NAME: CHC22010-G-003.DGN
IS/O SHEET
DESIGNED BY: A. THROOP
DRAWN BY: J. GIBSON
CHECKED BY: J. BASS
SUBMITTED BY: M. WIGGINS
SIZE: ANSI D

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
109 ST. JOSEPH STREET
MOBILE, AL 36602

MOBILE, AL
MOBILE HARBOR, ALABAMA
DEEPENING AND WIDENING:
PHASE 2B

GENERAL NOTES

SHEET ID
G-003

AMENDMENT NO. 0003