Phillippi Creek Maintenance Dredging
Technical Specifications

Sarasota County, Florida

October 2025

Prepared for:
West Coast Inland Navigation District
200 East Miami Avenue
Venice, FL 34285

Prepared by:

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1 GENERAL CONDITIONS

1.1 Definitions

PROJECT: Maintenance dredging of a portion of Phillippi Creek, Sarasota County, FL to restore navigable depths of -5.2 ft NAVD88 (-4.0 feet Mean Low Water (MLW))

AGENT: West Coast Inland Navigation District (WCIND), 200 East Miami Avenue, Venice, FL 34285.

CONTRACTOR: Those parties selected and duly authorized by the AGENT to conduct the Work contained herein.

OWNER: Sarasota County Board of County Commissioners, 1660 Ringling Blvd., Sarasota, FL 34236

ENGINEER: Cummins Cederberg

FDEP: State of Florida Department of Environmental Protection.

USACE: United States Army Corps of Engineers.

USCG: United States Coast Guard.

FWS: U.S. Fish and Wildlife Service.

NMFS: National Marine Fisheries Service.

FWC: Florida Fish and Wildlife Conservation Commission

DMMA: Dredge Material Management Area, the designated upland site for managing dredged material

Contract Drawings: Construction Plans prepared by Cummins Cederberg

WORK: Dredging approximately 4,726 cubic yards (CY) over 6,450 linear feet LF (AREA 1) and approximately 13,950 CY over 13,700 LF (AREA 2), totaling 18,676 CY, with DMMA preparation, material handling, material hauling and final disposal, environmental compliance, turbidity control, surveys, and site restoration as described in the Contract Drawings and Specifications.

1.2 Scope of Work

The WORK covered in this section consists of furnishing all plant, labor, equipment, tools, supplies, and material, and performing all operations, surveys and environmental compliance in connection with the maintenance dredging of a portion of Phillippi Creek for navigation improvements in accordance with the plans, permits and specifications. The dredging project consists of hydraulic/mechanical dredging of 4,726 cubic yards (CY) over 6,450 linear feet (LF) (AREA 1) and an additional 13,950 CY over 13,700 LF (AREA 2), totaling 18,676 CY and 20,150 LF, with DMMA preparation, material handling, disposal, turbidity control, and site restoration. The dredge area is located in Phillippi Creek, Sarasota County, FL, to restore navigable depths of -5.2 feet NAVD88 (-4.0 feet Mean Low Water (MLW)) along a 30 ft channel width with adjustments to the channel width near bridges, as needed.

The WORK also includes Dredge Material Management Area (DMMA) preparation, turbidity control, handling, transporting and disposing of dredged material to an approved landfill, the temporary removal, protection, and replacement of navigation aids, buoys, and regulatory signage within the project area as required, and site restoration. The handling, transportation, and disposal of dredged material may include dewatering in sealed systems and any required environmental monitoring based on the contamination of the material. The material in AREA 2 has been characterized as suitable for traditional dredging and disposal with mechanical mixing to address minor arsenic exceedances; no special contaminated material handling measures beyond mixing are anticipated, while the AREA 1 material will require special handling. The WORK may include installation of temporary channel markers during prosecution of the WORK; this shall be coordinated with the U.S. Coast Guard (USCG), Sarasota County Board of County Commissioners (OWNER), and West Coast Inland Navigation District (AGENT), as applicable.

Dredged material will be handled in the DMMA located at Phillippi Estate Park, 5500 S. Tamiami Trail, Sarasota, FL 34231, or other approved area. The material will be disposed of in the approved upland disposal facility at the Sarasota County Landfill (4000 Knights Trail Road, Nokomis, FL 34275) or other approved site. Any alternative dredged material management and disposal areas will be considered, subject to permit modifications and local coordination. At the OWNER's discretion, dredged material that meets applicable standards may be directed for beneficial reuse in County roadway or other projects, in lieu of landfill disposal. The CONTRACTOR may also propose alternative final locations for dredged material, subject to review and written approval by the OWNER and AGENT prior to mobilization and permit modification issuance.

The CONTRACTOR shall be expressly aware of the project location, the proximity to existing infrastructure (e.g., docks, seawalls, channel markers) including specific requirements for dredging near bridges, and the dynamic nature of this project site. The area is a recreational waterway used by emergency and recreational vessels subject to boat traffic, boat wakes, tidal currents, and water elevation changes due to tides, storm surge, and rainfall runoff. Throughout the project, the CONTRACTOR shall put forth the utmost care and attention to public safety by maintaining a clean and organized operation. The aerial photography, hydrographic survey,

benthic survey, geotechnical data, and bathymetric survey conditions on the permit sketches and/or construction plans are provided for informational purposes only and may not be representative of conditions at the time of construction and shall not be solely relied upon for estimating the WORK.

1.2.1 Environmental Permits

The AGENT has obtained the Florida Department of Environmental Protection (FDEP) and United States Army Corps of Engineers (USACE) permits for the WORK including transport and disposal of dredged material. The CONTRACTOR shall comply with all conditions of the permits including those from the Florida Fish and Wildlife Conservation Commission (FWC), U.S. Fish and Wildlife Service (FWS), and National Marine Fisheries Service (NMFS), which are incorporated by reference. All work shall comply with the requirements of the permits, which are attached to the technical specifications (Appendices C and D). Permit modifications may be required for disposal of dredge quantities or alternative sites, subject to AGENT approval. Any other modifications to said permits will be addressed through an addendum by the AGENT.

1.2.2 Other Permits

The CONTRACTOR is solely responsible for obtaining, at his/her cost, all other approvals for transporting materials, equipment, or personnel to the project site. This includes, but is not limited to, any and all roadway permits, customs clearances, and business licenses required to bring material to the site. The CONTRACTOR shall obtain any and all USCG certifications or approvals for all vessels and equipment used to perform the work in compliance with applicable rules and regulations. A copy of any required USCG certifications or approval shall be provided to the ENGINEER and AGENT prior to commencing the WORK. The CONTRACTOR shall coordinate with Sarasota County relative to use of any Temporary Construction Easement for the WORK, if applicable.

1.2.3 Coast Guard Coordination

As the Project is located within a navigable waterway, the CONTRACTOR shall coordinate with the USCG a minimum of thirty (30) days prior to commencing the WORK relative to construction schedule, adjacent boat traffic, and use of appropriate lights and signage. The CONTRACTOR shall complete the WORK in compliance with the applicable sections of the Construction Methodology included in the environmental permits. The temporary removal of any navigation aids, for the purpose of construction, will require authorization from the USCG. Temporary removal will be done by the CONTRACTOR; the CONTRACTOR shall consider this in their bid. Equipment shall not be staged in a manner that will impact navigation during construction.

Prior to construction, the USCG will put out a 30-day notice in the “Local Notice to Mariners” advertising these changes. In addition, the USCG will coordinate with the Coast Guard Aids to Navigation Team on a date for the CONTRACTOR to temporarily remove all lighting and day markers from navigation aids, if applicable. No unmarked pilings shall be left in the waterway.

Prior to construction, the CONTRACTOR shall coordinate this effort with the appropriate USCG contacts. Temporary manatee sign(s) shall be displayed in accordance with the current "Standard Manatee Conditions for In-Water Work," as required by the environmental permits for the project.

The CONTRACTOR shall be responsible for obtaining any required USCG permits prior to commencing work, and shall ensure that all floating and submerged equipment, pipelines, and barges are properly marked and lighted in accordance with USCG requirements. The CONTRACTOR shall maintain compliance for the duration of construction activities.

1.3 Contractor Qualifications

The CONTRACTOR shall provide the dredge and all support vessels, labor, equipment, supplies, and materials necessary to perform all operations in connection with excavation, dewatering, transport, and disposal of dredged material, debris removal, and project site restoration to its pre-construction condition as required by the Contract Documents. In order for the CONTRACTOR to be deemed qualified and responsive, the following shall be provided with the bid under cover labeled "BIDDER QUALIFICATIONS" or similar title:

- Bidder's proposed method of construction and overall schedule demonstrating understanding of the WORK and completion within the Contract time.
- The size, type, and production rates of the dredge proposed for the WORK in accordance with the minimum requirements provided herein.
- The additional equipment proposed to complete this project including, but not limited to, barges, scows, boosters, cranes, bulldozers, loaders, excavators, etc.
- Qualifications and prior experience of bidder's key personnel, to include proposed project manager, superintendent, dredge operator, site engineer, environmental/species monitors, safety officer, etc.
- Experience with creek or inland waterway dredging (including potentially contaminated soil), dewatering, and upland disposal.
- Description of most recent, successfully completed dredging project of this nature led by the bidder.
- References for at least three (3) similar dredging projects completed within the last five (5) years.
- Turbidity monitoring experience and qualifications for compliance with project permits.
- Scope of Work and resumes for the independent third-party turbidity monitor to demonstrate that the staff and equipment are available to conduct the monitoring correctly.

1.4 Commencement, Prosecution, and Completion of the Work

The CONTRACTOR shall commence the work under the Contract within fourteen (14) days after the Notice to Proceed has been issued by the AGENT and shall complete all work within the time specified in the contract. The time stated for completion shall include all aspects of the WORK including final clean-up of the premises and all repairs or restorations of facilities, structures, navigation aids, work areas, staging areas, vegetation, submerged marine resources, or any other

items damaged by the CONTRACTOR or their subcontractors as a result of the project construction activities, and full demobilization from the project site.

1.5 Order of Precedence

In the event of a conflict within the Contract Documents, the following order of precedence shall govern: (1) Permits and regulatory conditions; (2) Technical Specifications; (3) Drawings; (4) Bid Package. Nothing in this section shall relieve the CONTRACTOR from complying with all applicable laws and regulations. Interpretations of conflicts shall be made by the **ENGINEER** in consultation with the **OWNER** and **AGENT** and shall be final.

1.6 Meetings

1.6.1 Pre-Bid Meeting

See Invitation for Bid.

1.6.2 Pre-Construction Meeting

The ENGINEER and AGENT will conduct a mandatory Pre-Construction meeting for this project. The Pre-Construction meeting will be held after the Notice of Award (NOA) but prior to the Notice to Proceed (NTP). The CONTRACTOR shall attend the mandatory Pre-Construction Meeting in Sarasota County, Florida. CONTRACTOR shall notify key subcontractors and suppliers to attend the meeting. During the meeting, the ENGINEER will discuss contracting, contract 'ground rules', review the plans and technical specifications, all CONTRACTOR submittals as identified in Section 1.7.3, and other aspects of the WORK. The intent of the meeting is to develop mutual understanding relative to details of the project administration, including the forms to be used for recording the quality control operations, inspections, daily reports, and the inter-relationship between the ENGINEER, AGENT, and CONTRACTOR and their respective observers. The permits will also be discussed to familiarize the CONTRACTOR with the permit requirements. Nevertheless, it is the responsibility of the CONTRACTOR to meet the requirements for all permit conditions. The CONTRACTOR's designated superintendent shall be present at the Pre-Construction meeting. A minimum of five days prior to the Pre-Construction meeting, CONTRACTOR shall submit for AGENT approval, an Operations Plan describing the order of work, phasing, schedule, equipment, personnel, methods for control, procedure for dredging, subcontractors, daily reporting form, employee contact information, and coordination plan for staging and access.

1.6.3 Weekly Progress Meetings

Upon issuance of Notice to Proceed, it is the CONTRACTOR's responsibility to schedule, convene, and preside over mandatory progress meetings with the ENGINEER and AGENT. Initially, progress meetings will be held bi-weekly and will be subject to change based on instructions from the AGENT, as needed. As project activities increase, a minimum of one progress meeting per week is required, though the CONTRACTOR may convene additional meetings with the ENGINEER and AGENT as required or requested by the ENGINEER. The

progress meetings shall be held at the AGENT's office or on-site with the AGENT to review progress of the WORK, work schedule and updates, and submittals. Additionally, the CONTRACTOR will provide a call in option for the weekly meetings. The CONTRACTOR's superintendent shall attend all scheduled progress meetings.

1.7 Project Management

1.7.1 Order of Work and Work Schedule

While the means, methods, and schedule of the WORK are to be prepared by the CONTRACTOR, they must be approved by AGENT. The CONTRACTOR shall provide an Order of Work outline and work schedule to the ENGINEER and AGENT within fourteen (14) days following Contract award. The project schedule shall include mobilization, commencement of dredging, estimated construction period, fill or disposal completion date, demobilization, and completion of all work.

The CONTRACTOR shall describe the order in which the WORK will be performed, including the anticipated dredge progression through the dredge areas in accordance with the permits. The Order of Work shall generally be as follows:

- Establish boater and pedestrian control including installation of buoys, lights, barricades, including temporary measures and signage, as appropriate, to prevent public access to areas of construction and complying with environmental requirements in permits and all US Coast Guard regulations. Additional signage as required by the state and federal permits may be required.
- Sarasota County and WCIND shall provide CONTRACTOR with defined areas for staging areas, acceptable to WCIND and Sarasota County as appropriate.
- Through coordination with a Florida Licensed Professional Surveyor and Mapper (PSM), install and manage benchmarks for vertical and horizontal control to establish the construction baseline and install visual guides for positioning of the WORK.
- Install and manage a turbidity barrier around work areas in accordance with these Technical Specifications and the State and federal permits. If during construction, tidal currents prevent effective placement of turbidity curtains, CONTRACTOR will consult with AGENT.
- Prepare DMMA at DMMA Location with liners, berms, and erosion controls as necessary.
- Update dredge volumes with pre-construction survey.
- Dredging shall commence upon issuance of a NTP for the work by AGENT.
- Handle and dispose of dredged material, including dewatering in sealed containers, with transport to Approved Landfill Location.
- Conduct daily turbidity monitoring and protected species observations, halting work if thresholds are exceeded or species are sighted, with downtime factored into unit prices.
- Upon acceptance by AGENT, CONTRACTOR shall restore all staging areas and access locations to pre-construction conditions to the satisfaction of AGENT and OWNER and prior to Demobilization.
- Demobilize equipment and submit final surveys/reports.

If tidal currents affect turbidity placement, the CONTRACTOR shall consult WCIND for adjustments, per FDEP permit conditions. If directed to do so by AGENT, CONTRACTOR shall collect samples of the dredged material and provide those samples to the AGENT at next site meeting.

The CONTRACTOR may dictate the order of work and determine the dredging methodology and sequence; however, the OWNER's preferred commencement area is near the US 41 loop (Station 38+00A to Station 64+65A).

1.7.1.1 Acceptance Sections

Acceptance sections are defined as the portion of the dredge/disposal area lying between two immediately adjacent profile lines. Once dredging begins in an acceptance section, it must be completed before moving to the adjacent acceptance section, unless otherwise authorized by the ENGINEER. Profile lines will be established by the CONTRACTOR according to the plans subject to ENGINEER approval. The CONTRACTOR may establish intermediate profiles in addition to those shown in the plans to complete the WORK in accordance with the plan view layout. The CONTRACTOR may submit the intermediate profiles for payment subject to review and approval by the ENGINEER.

1.7.1.2 Continuous Construction

The CONTRACTOR and their subcontractors shall continuously maintain at the project site and on the job, the dredge, materials, equipment, and adequate personnel required to continuously construct the project. Under no circumstances will the CONTRACTOR remove the dredge, equipment, materials, subcontractors, and adequate numbers of personnel from the project site without the written consent of the AGENT unless one or more of the following occurs: the project is determined by the AGENT to be complete; weather or sea state conditions require movement from the project site; a condition exists which threatens the safety and welfare of personnel or threatens equipment; or, the time frame provided for project construction in the Contract Documents, State, or Federal permits has expired. Removal of equipment, personnel, materials, or subcontractors from the project site interrupting continuous construction shall be at the CONTRACTOR's risk and expense.

1.7.2 Work Hours and Holidays

1.7.2.1 Project Time

All work on site, including construction, vessel transit, clean-up, and mobilization and demobilization shall be performed during daylight hours only, subject to permit conditions. Lighting use shall comply with sea turtle nesting restrictions as seen in the permits and comply with USCG regulations and local ordinances. Construction activity shall be limited to 7:00 a.m. to 7:00 p.m. (Monday–Saturday), unless otherwise approved by the ENGINEER and AGENT. No work is permitted on Sunday, without AGENT approval.

1.7.2.2 Holidays

No work shall be allowed in the project area during holidays observed by the OWNER without prior approval from the OWNER. Survey work shall be permitted.

1.7.2.3 Construction Window

No regulatory construction window has been established by the environmental permits for this project, but the CONTRACTOR shall comply with any seasonal restrictions for protected species.

1.7.3 Submittals

The CONTRACTOR shall submit the following items to the ENGINEER at the appropriate times, as specified in these technical specifications. Further details on submittals, including their due dates, are provided in the Contract Documents and herein.

Submittal	Timing	Reference Section
Contact List	Prior to Pre-Construction Meeting	Section 1.7.3.1
Dredging Work Plan	Prior to Mobilization	Section 2.20.4
Quality Control Plan	Prior to Mobilization	Section 2.20
Safety Plan	Prior to Mobilization	Section 1.9.2.1
Environmental Protection Plan	Prior to Mobilization	Section 3.9
Dredged Material Disposal Plan including Maintenance of Traffic Plan	Prior to Mobilization	Section 2.6.8 Section 2.6.11
Storm / Hurricane Preparation Plan	Prior to Mobilization	Section 1.12.7
Waterway Marker Management Plan	Prior to Dredging	Section 2.12
Notice to Mariners Documentation	Prior to Dredging	Section 1.2.3 and 2.12
DMMA Preparation Plan	Prior to DMMA work	Section 2.6.3
Hydrographic Survey	Before, during and after Dredging	Section 2.16.1.4
Daily Quality Control Reports	During Construction	Section 2.20.2
Turbidity Monitoring Reports	During Dredging	Section 3.11
Dredged Material Testing Results	Prior to Disposal	Section 2.6.10
Site Restoration Plan	Prior to Demobilization	Section 2.10.3
Pre/Post Construction Conditions	Before and after Construction	Section 1.7.3.2

1.7.3.1 Contact List

At least seven (7) days prior to the Pre-Construction Meeting, the CONTRACTOR shall submit a list of project personnel, including subcontractors, with their telephone, e-mail address, telefax, and other numbers by which key personnel can be reached for purposes of notification and other matters discussed in these technical specifications. Nevertheless, the CONTRACTOR remains

responsible for all work and shall be the point of contact and in responsible charge of the subcontractor during the duration of the work. The CONTRACTOR shall provide the names and contact information of all employees that will be on the dredge. Emergency 24-hour contact information for all project superintendents on the dredge shall be provided at the Pre-Construction Meeting.

1.7.3.2 Pre-/Post-Construction Conditions

The CONTRACTOR shall provide copies of the pre- and post-construction video and/or photography at least one (1) day prior to the start of construction documenting the condition of the project site including, but not limited to, construction accesses, staging areas, DMMA areas, infrastructure, disposal areas, and vegetation. Prior to commencing the WORK, the CONTRACTOR shall provide video and audio documentation of pre-construction conditions, identifying notable items that may be deemed unusual or defective, including but not limited to cracked seawalls, existing water depths, damaged docks or boats, dead or dying vegetation, poor drainage conditions, decorative ornaments, and cracked roadways. Documentation shall be submitted to the West Coast Inland Navigation District (WCIND) and Sarasota County for review before construction begins.

1.7.4 Notification

1.7.4.1 Notifications

The CONTRACTOR shall specifically notify the ENGINEER and AGENT of the CONTRACTOR's intended date of commencement of the following WORK milestones at least seven (7) days prior to each activity identified as follows:

a. Mobilization
b. Removal of navigation aids (if applicable)
c. Commencement of dredging
d. Establishment of horizontal and vertical control
e. Conducting Before Dredge (BD), After Dredge (AD), and as-built surveys
f. Expected substantial completion of the WORK
g. Expected final completion of the WORK
h. Plans/specifications discrepancy
i. Cultural resource discovery
j. Misplaced material
k. Occurrence of delays in the WORK
l. Claims and disputes

Further details on notifications, including their due dates, are provided in the Contract Documents and herein.

1.7.4.2 Project Uncovering

The presence or absence of the ENGINEER shall not relieve the CONTRACTOR of their responsibility to properly execute the WORK in close accordance with these specifications and the plans. The ENGINEER may order any element of the WORK uncovered, at no additional expense to the OWNER, in the event the WORK was not observed by the ENGINEER or

documented prior to covering. This condition applies to any source of sand coverage in the disposal areas, including causation due to natural processes such as wind, waves, or tides.

1.7.4.3 Noncompliance Notification

The ENGINEER shall notify the CONTRACTOR of any observed non-compliance with the plans and technical specifications and/or applicable Federal, State, or local laws & regulations promptly upon discovery. The CONTRACTOR shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the CONTRACTOR or his authorized representative, shall be deemed sufficient for the purpose. If the CONTRACTOR fails or refuses to comply promptly, the OWNER may issue an order stopping all or part of the WORK until satisfactory corrective action has been taken.

1.7.4.4 Notice of Delays

In the event, the CONTRACTOR experiences any delay in the prosecution of the WORK, the CONTRACTOR shall, immediately upon the occurrence of any event giving rise to a delay, and in any event no later than three (3) days after the onset of the delay, notify the ENGINEER in writing of the occurrence of such delay, the cause and the probable length of the delay in order that the ENGINEER may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the WORK are to be delayed thereby. The notice shall also demonstrate that the CONTRACTOR will or has used all reasonable means to minimize the delay and contain an estimate of the probable effect that such delay will have on the progress and final completion of the WORK. Notification of occurrence of delay will not be considered unless submitted electronically or in writing.

1.8 Subcontractors

1.8.1 Qualifications

The CONTRACTOR shall furnish within the Contract Documents the names of subcontractors proposed for any portion of the WORK and provide appropriate information in the bid, such as company experience, personnel experience, equipment, and references to verify the qualifications of the subcontractor to complete the assigned portion of the WORK. The CONTRACTOR shall use the subcontractors listed in the bid to conduct the WORK and shall identify the work to be performed by each subcontractor, including but not limited to an independent third-party entity responsible for turbidity monitoring and reporting, all of whom must be pre-approved by the regulatory agencies.

1.8.2 Acceptance

The CONTRACTOR shall not employ any subcontractor or other person or organization (including those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, against whom the ENGINEER or OWNER may have a concern or objection. If the ENGINEER or OWNER has a concern or objection to any subcontractor, other person, or organization proposed by the CONTRACTOR before, or after, execution of the Contract

Documents, the CONTRACTOR shall submit an acceptable substitute as soon as possible without increase in project cost or delay in project construction.

1.8.3 Work

The divisions and sections of the Contract Documents and the identifications of any plans shall not control the CONTRACTOR in dividing the work among subcontractors or delineating the work to be performed by any specific trade.

1.8.4 Compliance

The CONTRACTOR hereby agrees and shall be solely responsible for ensuring that the CONTRACTOR and any subcontractors fully comply with the requirements of any applicable ordinances, statutes, laws, or regulations which may affect this project or the CONTRACTOR's/subcontractor's work under this project. The CONTRACTOR further agrees that neither the OWNER nor its ENGINEER shall be responsible for ensuring compliance or notification of any changes or modifications to any such applicable ordinances, laws, statutes, rules, or regulations.

1.9 Project Staffing

1.9.1 Superintendent

The CONTRACTOR shall assign a project superintendent(s) to the project. The superintendent(s) of the CONTRACTOR shall be a land-based employee and be available to the AGENT and/or ENGINEER at all times during project construction. The CONTRACTOR shall provide the ENGINEER and AGENT a mobile phone number to be in the possession of the superintendent at all times. The CONTRACTOR shall designate a competent superintendent to be on site for the project who will be responsible for seeing that the WORK is in compliance with the Contract Documents, which include the Contract, contract drawings, and regulatory permits and authorizations. The CONTRACTOR shall provide a 24-hour cell phone number or other contact number by which the Superintendent may be reached at any time during construction as well as a backup contact in case Superintendent is not available. The AGENT may request a new superintendent(s) if the existing superintendent is not available to the ENGINEER or AGENT during the project construction period. In that event, the CONTRACTOR shall provide a new superintendent(s).

The ENGINEER and/or AGENT may reject the superintendent proposed by the CONTRACTOR. If the proposed superintendent is rejected, the CONTRACTOR will propose an alternate superintendent as soon as possible and without additional cost to the AGENT.

1.9.2 Safety Officer

The CONTRACTOR shall have at the project site a permanent Safety and Occupational Health person (Safety Officer) whose sole and dedicated role is to manage the CONTRACTOR's accident prevention program. The Safety Officer shall be on duty during any work of a complex

nature including, but not limited to, dredging, transport of materials, movement of equipment, work on or around structures, or when other potentially hazardous activities are occurring. The Safety Officer shall report to and work directly for the CONTRACTOR's superintendent or the corporate safety office. The Safety Officer shall have the authority to take immediate steps to correct unsafe or unhealthful conditions. The presence of the Safety Officer will not abrogate safety responsibilities of all other personnel. The CONTRACTOR shall maintain a safe work environment per USACE EM 385-1-1 (2014), requiring hard hats, long pants, steel-toed boots, and life vests on floating equipment. All barges and pipelines shall be marked per USCG standards to prevent collisions with recreational vessels.

1.9.2.1 Safety Plan Submittal

Prior to mobilization, the CONTRACTOR shall submit a written project-specific Safety Plan that meets the requirements of USACE EM 385-1-1 and applicable OSHA standards. The Plan shall identify site-specific hazards, required personal protective equipment (PPE), hazard communication protocols, emergency procedures, accident reporting protocols, and safety meeting frequency. The Safety Plan shall be reviewed and approved by the ENGINEER prior to commencement of the WORK.

1.10 Technical Dispute Resolution

The CONTRACTOR shall perform the WORK as specified by the Contract Documents. The ENGINEER shall decide all technical issues of any nature that may arise relative to the interpretation of the technical portions of the Contract Documents, plans and technical specifications, surveys and dredged material volume measurement, and prosecution and fulfillment of this Contract, and as to the character, quality, amount, and value of any work done and materials furnished under this Contract. If the CONTRACTOR objects to the ENGINEER's decision, the CONTRACTOR shall, within 48 hours of receiving the ENGINEER’s decision, notify the ENGINEER in writing of the CONTRACTOR's objection thereto. The CONTRACTOR and ENGINEER will mutually attempt to resolve the issue; nevertheless, the ENGINEER’s decision will be binding upon the CONTRACTOR.

1.11 Contractual Dispute Resolution

Contractual disputes, including but not limited to matters of payment, time extensions, or interpretation of commercial provisions, shall be resolved in accordance with the dispute resolution procedures set forth in the Contract Documents between the AGENT and the CONTRACTOR. The CONTRACTOR shall continue to diligently prosecute the WORK pending resolution of any dispute, claim, or appeal, unless directed otherwise in writing by the AGENT.

1.12 Completion Time, Delays, and Time Extensions

1.12.1 Time of Completion

The WORK shall start on the date stated in the Notice to Proceed, and the CONTRACTOR shall complete all WORK hereunder within the time limits stated in the Form of Proposal.

1.12.2 No Damage for Delay

No payment, compensation or adjustment of any kind, other than the extension of time provided for below, shall be made to the CONTRACTOR for damages because of hindrances or delays from any cause in the commencement, prosecution or completion of the WORK resulting from the CONTRACTOR's or its agent's negligence or non-compliance with the Contract Documents, including but not limited to the following wherein the CONTRACTOR can conclusively demonstrate that the act or omission clearly caused the delay:

a) Acts of God, such as storms, wave events, hurricanes, tropical storms, tornadoes, earthquakes, floods, or extreme weather
b) Changes in project sequence
c) Project deceleration
d) Lack of right-of-way or easement not within the direct control of the AGENT
e) Lack of approvals
f) Site conditions
g) Presence and operation of other contractors
h) Strikes, lockouts, labor, or material shortages
i) Fires
j) Delay in transportation
k) Omissions or errors on the plans or specifications

Whether such hindrances or delays be avoidable or unavoidable, the CONTRACTOR agrees that it shall make no claim for, nor be entitled to, compensatory, acceleration, disruption damages, if any, or any other damages of any kind or nature for any such delays or hindrances and will accept in full satisfaction for such delays the extension of time set forth below as project permits allow. The No Damage for Delay provision of this paragraph shall include, but shall not be limited to, increase in time-related costs, escalation in material costs, reduction in material volume, escalation in labor costs, additional equipment requirements, effect on other contracts, increased premiums, lower labor productivity, lost alternative income, additional labor head count, additional premium time labor, additional supervision, and demobilization and remobilization costs.

1.12.3 Avoidable Delays

Avoidable delays or hindrances in commencement, prosecution, or completion of the WORK shall include all delays from any cause whatsoever that could have been avoided in the exercise of appropriate planning, care, prudence, foresight, or diligence on the part of the CONTRACTOR or their subcontractors. Delays in the prosecution of parts of the WORK that may in themselves be

unavoidable but do not necessarily prevent or delay the prosecution of other parts of the WORK nor the completion of the whole WORK within the time herein specified; reasonable loss of time resulting from the necessity of submitting reports, plans, or surveys to the ENGINEER for review; from conducting surveys, measurements, and inspections; and from such interruptions as may occur in the prosecution of the WORK on account of the reasonable interference of other contractors employed by the OWNER which do not necessarily prevent the completion of the WORK within the time herein specified shall be deemed avoidable delays within the meaning of this Contract.

1.12.4 Remedies for Avoidable Delays

If (a) the WORK called for under this Contract is not finished and completed by the CONTRACTOR in accordance with all requirements, and within the time specified for completion in the Contract Documents, including authorized Change Orders or suspensions of the WORK not due to the CONTRACTOR's failure to perform according to the Contract Documents; or, (b) if at any time prior to the expiration of said time it should appear to the AGENT that the CONTRACTOR will be unable to complete the WORK in accordance with the Contract Documents, the AGENT shall have the right to declare the CONTRACTOR in default and to terminate the Contract. Upon such termination, the AGENT shall have the right to take over and complete the WORK or any part thereof either by contract or by other means as the AGENT may deem advisable. The CONTRACTOR shall be liable to the AGENT for any and all costs incurred by the AGENT in completing the WORK, including but not limited to, the cost of labor, materials, equipment, and overhead, and for any damages or losses sustained by the AGENT as a result of the CONTRACTOR's default.

1.12.5 Unavoidable Delays

The CONTRACTOR will not be charged if the delay in commencement, prosecution, or completion of the WORK arises from unforeseeable, unavoidable causes beyond the control and without the fault or negligence of the CONTRACTOR and as determined by the AGENT. Orders issued by the AGENT increasing the total amount of work to be done by 25% or more and unforeseen delays in the completion of the WORK of other contractors under contract with the AGENT may be considered unavoidable delays, so far as they necessarily extend the time for completion of the whole WORK.

1.12.6 Time Extension for Unavoidable Delays

For delays that are unavoidable, as determined by the ENGINEER and AGENT, the CONTRACTOR will be allowed, if it applies for the same in the notice, an extension of time beyond the time specified for completion in the Contract and as specified in an approved change order, proportionate to such unavoidable delays, within which to complete the Contract and within time limitations contained in project permits. Any request by the CONTRACTOR for extension of the Contract Time shall be based on a written notice delivered by the CONTRACTOR to the AGENT with a copy to the ENGINEER promptly (but in no event later than seven (7) days) after the start

of the occurrence or event giving rise to the request. The notice shall state the number of calendar days being requested and the reason (or reasons) for the need for the additional time.

1.12.7 Time Extension for Weather Delays

The CONTRACTOR shall become familiar with the weather and sea conditions for the project site prior to submitting a bid for the WORK and shall include appropriate downtime based on the equipment being proposed to execute the WORK within the contractual time for completion. The CONTRACTOR shall include in their Hurricane and Storm Preparation Plan the criteria and data source for determining unusual weather for review by the ENGINEER and AGENT prior to commencing the WORK. Time extension for delays for unusual weather or sea state which prevent work from being accomplished by the CONTRACTOR will be granted if:

a) A request is made in writing within 72 hours of the delay,
b) The delay is substantiated, in writing with supporting wave or weather data, within 72 hours of the onset of the delay
    a. Supporting wave or weather data will be from within 10 nautical miles of the project area
    b. CONTRACTOR to provide photographic evidence of the adverse weather conditions, and
c) The wave or weather data indicates that the dredge had to be removed from the project area for safety reasons.

The CONTRACTOR shall prepare and submit a Storm/Hurricane Preparation Plan at least fourteen (14) days prior to mobilization. The Plan shall include procedures for securing vessels, dredging plant, and equipment; evacuation of personnel; protection of materials and staging areas; securing or removal of pipelines, buoys, and turbidity curtains; and coordination with the AGENT, ENGINEER, and USCG for pre- and post-storm actions. The Plan shall identify thresholds for suspension of operations based on forecast wind speeds, sea state, or storm proximity, and shall designate responsible personnel for implementation.

1.12.8 Additional Expenses for Overrun

Should the CONTRACTOR fail to complete the WORK within the specified Contract Time (including any approved extensions), it is agreed that for each calendar day of overrun until final completion, all costs of construction management supervision, inspection, survey, and other related services furnished by the AGENT, OWNER, or ENGINEER shall be at the cost of the CONTRACTOR and/or its Surety. Such costs shall be considered equal to the actual amounts paid by the AGENT/OWNER for the duration of the overrun until final completion. These costs will be deducted from monies due the CONTRACTOR at final payment. The amount of such expenses shall be construed to be in addition to any other damages that might be assessed by the AGENT/OWNER, including but not limited to liquidated damages as specified in the Contract Documents.

1.13 Utilities

All utilities required by the CONTRACTOR to complete the WORK (e.g., electricity, water) shall be furnished at the CONTRACTOR's own expense. The CONTRACTOR shall not install meters, gauges, or similar measuring devices on existing utilities without prior approval of the AGENT.

1.14 Protection of Property and Work

1.14.1 Protection of Property

The CONTRACTOR shall, at the CONTRACTOR's own cost and expense, support and protect all public and private property that may been countered or endangered in the prosecution of the WORK herein. The CONTRACTOR shall repair to its original condition and make good any damage caused to any such property by reason of its operation, to the satisfaction of the AGENT before final payment is provided to the CONTRACTOR by the AGENT. Such restoration shall be in accordance with a plan submitted for approval by the AGENT. This work shall be accomplished at the CONTRACTOR's expense. Final payment to the CONTRACTOR will not occur until the ENGINEER and the AGENT are satisfied with the CONTRACTOR's effort to restore damaged public and private property or any other damage caused by the CONTRACTOR or their subcontractors.

1.14.2 Contractor Responsibility

The CONTRACTOR shall at all times guard the work site(s) and adjacent properties from any damage in connection with this Contract whether arising from direct operations under this Contract, theft, vandalism, or other cause. The CONTRACTOR is not responsible for natural erosion of the flood shoal or offshore disposal areas previously accepted by the ENGINEER for payment, unless the area is eroded or damaged due to the activities of the CONTRACTOR. The CONTRACTOR shall make good any and all loss, damage, or injury to the WORK, whether arising from direct operations under this Contract, weather or sea conditions, theft, vandalism, or any cause.

1.14.3 Risk of Loss

The WORK and everything pertaining thereto shall be performed at the sole risk and cost of the CONTRACTOR from commencement until final payment by the AGENT. Any specific references contained in the Contract Documents that the CONTRACTOR shall be responsible at its sole risk and cost for the WORK, or any part thereof are not intended to be, nor shall they be construed to be, an exclusive listing of the circumstances in which the CONTRACTOR bears the risk of loss, but rather they are intended only to be examples.

The risk of loss or damage arising out of the nature of the WORK, or from weather events, hurricanes, tropical storms, winter storms, adverse sea state, or from any unusual obstruction or difficulty, or any other natural or existing circumstances either known or unforeseen, that may be encountered in the prosecution of the WORK, shall be sustained and borne by the

CONTRACTOR at its own cost and expense, including all dredging or disposal that has not been accepted by the ENGINEER for payment.

2 DREDGING OPERATIONS

2.1 Summary

The WORK covered by this section consists of furnishing all labor, materials, equipment, supplies and material, surveying, and performing all operations necessary for maintenance dredging along portions of Phillippi Creek as indicated on the plans and the disposing of all material in an approved upland disposal facility. All watercraft associated with the execution of the WORK shall only operate within waters of sufficient depth to preclude bottom scouring, prop dredging, grounding, and damage to the submerged bottom or submerged resources, as specified in Section 3.5. Temporary and permanent impacts to surrounding wetland and submerged natural resource areas are not authorized.

2.2 Equipment

If the CONTRACTOR's operations require anchoring or spudding of barges or other equipment within the work areas, the CONTRACTOR shall be responsible for assuring that the anchoring or spudding technique does not impact or interfere with navigation or damage public or private property. If pilings are used for anchorage, the pilings shall be well marked and removed in their entirety upon completion of the CONTRACTOR's operation. The CONTRACTOR shall, at his own expense, repair any damages to private or public property resulting from the CONTRACTOR's operations. Anchoring or spudding of vessels and barges within wetland or submerged natural resource areas is prohibited.

2.3 Measurement

The material removed will be measured by cubic yard, based on bathymetric surveys taken before and after dredging wherein such surveys will be recorded as BD and AD, respectively. The plans represent existing conditions based on current available information, and will be verified and corrected, if necessary, based on the BD bathymetric survey. The CONTRACTOR shall have a Florida Licensed Professional Surveyor and Mapper conduct BD and AD bathymetric surveys that shall be used to measure payment for dredged material. All surveys and pay quantities shall be tied to NAVD88 unless otherwise directed.

2.3.1 Datums and Benchmarks

The CONTRACTOR shall perform all other survey work for controlling the WORK, including setting temporary benchmarks, staking and layout, and intermediate/progress surveys. The CONTRACTOR shall establish baselines and control, through the project duration, as approved by the ENGINEER, to maintain the WORK within the limits indicated by the plans.

2.3.2 Survey Deliverables

Deliverables to the ENGINEER shall include processed and tide corrected survey data of easting, northing, and elevation (XYZ) in ASCII format provided digitally (via email, FTP, flash drive, or on

a compact disk (CD)) and illustrated in cross-sections on digital or hard copy plots. Cross-section plots shall show the survey, the dredge/fill template, the upper and lower tolerance, and the mean high water line. Additional information to be provided to the ENGINEER shall include any corrections and field notes. The following survey deliverables shall be submitted by the CONTRACTOR to document the WORK:

2.3.2.1 Design Survey

The design survey was completed by SurvTech Solutions, in January, 2025. The contours shown on the plans represent the bathymetric conditions existing at the time of the survey and were used to support the project design. At the time of construction, actual conditions at the project site may vary significantly.

2.3.2.2 Pre-construction Survey

At least fourteen (14) days prior to the commencement of dredging activities, the CONTRACTOR shall perform a pre-construction survey of the dredge area, as conditions have likely changed due to the dynamic nature of the project area, the pre-construction survey will be used to update the dredge volume, and project schedule as needed. The project area has been established by permit and will not be revised with the pre-construction survey data, although the volume to be dredged may vary due to natural processes occurring since the date the design survey was completed. The pre-construction survey shall be signed and sealed by a Florida-registered Professional Surveyor and Mapper.

2.3.2.3 Before Dredge (BD) Survey

Prior to commencing dredging operations, a BD survey of the project area shall be conducted by the CONTRACTOR in accordance with all survey standards established herein. The data shall be collected along the baseline at the station intervals shown on the plans. The results from the BD survey will be the basis for payment. Transducer frequency shall be consistent for all surveys conducted before, during, and after dredging is completed. BD surveys shall be completed no more than fourteen (14) days prior to dredging. BD surveys conducted by the CONTRACTOR shall be submitted to the ENGINEER and OWNER within seven (7) days of collecting the data. Upon submittal to the ENGINEER, the surveys will be reviewed for accuracy, completeness, and to calculate payment quantities relative to the AD survey.

2.3.2.4 Interim Progress Survey

Interim progress surveys may be conducted during the progress of the WORK at the request of the ENGINEER or when required to support interim payment applications submitted by the CONTRACTOR. The frequency and extent of interim progress surveys shall be mutually agreed upon by the ENGINEER and CONTRACTOR and documented in the Dredging Work Plan. Interim progress surveys shall be performed in accordance with the survey standards established herein and may, at the ENGINEER's discretion, be accepted in lieu of After Dredge (AD) surveys for completed acceptance sections.

2.3.2.5 After Dredge (AD) Survey

An AD survey of each acceptance section shall be conducted by the CONTRACTOR in accordance with all survey standards established herein. Within seven (7) days of the completion

of dredging activities within an acceptance section, the CONTRACTOR shall perform the AD survey of the dredge area. The data shall be collected along the baseline at the station intervals shown on the plans (i.e., the same as the BD survey). Upon submittal to the ENGINEER, the surveys will be reviewed for accuracy, completeness, and to calculate payment quantities relative to the BD survey. The seven (7) day period will be indefinitely extended until a final survey is accepted and approved. Any material accretion which may occur during such time extension shall neither be measured, estimated, or paid for.

The requested payment quantities, within the permitted template and broken down by required depth, shall be identified and included with the AD surveys (summarizing each acceptance section). Payment for completed work will not be made until the ENGINEER has reviewed and approved the BD and AD bathymetric surveys.

2.3.2.6 As-Built Survey

At the completion of all acceptance sections, the CONTRACTOR shall submit five (5) copies of a signed and sealed final survey of the entire project within fourteen (14) days of the completion of dredging activities for ENGINEER for approval. At a minimum, the as-built survey shall include the BD survey, permitted dredging template, and AD survey by combining each of the acceptance sections. At the ENGINEER's discretion, approved Interim Progress Surveys may be used in lieu of AD surveys for acceptance sections where they provide complete and accurate documentation of final dredging conditions. The payment quantities, within the permitted template and broken down by required depth, shall be included in the as-built survey.

The As-Built Survey shall also include the calculated payment quantities within the permitted template, broken down by required depth, and a survey of the DMMA placement area. The As-Built Survey shall be signed and sealed by a Florida-registered Professional Surveyor and Mapper.

2.3.3 Excessive Dredging

2.3.3.1 Side Slopes

While dredging of side slopes may be required to provide adequate channel dimensions (depth and width), the side slopes shown on the plans are provided for measurement and payment purposes only. Side slopes may be formed by box cutting, step cutting, or dredging along the side slope. Side slopes shall not be basis for claims against the OWNER.

Dredging of side slopes shall be two (2) on the horizontal and one (1) on the vertical per the plans. The quantity shall include the volume within the limits of the side slopes. Material removed to provide for final side slopes flatter than that shown on the plans, but not in excess of the amount originally lying above the limiting side slope, will be measured and paid for.

2.3.3.2 Shoaling

The bathymetric data and quantity estimates indicated on the plans are based on the condition of the dig area at the time of the most recent design survey conducted by SurvTech Solutions in

January 2025. Any material that has shoaled since the survey indicated on the plans and adjacent to the areas to be dredged under this contract shall be excavated by the CONTRACTOR at the contract unit rate price for dredging. Additional unit price adjustments may be applicable if directed by the OWNER.

2.4 Layout of the Work

The CONTRACTOR shall use the coordinates provided on the CONTRACT DRAWINGS to layout the construction baseline and the WORK. It is the CONTRACTOR's responsibility to layout the work from these control points using the horizontal and vertical positioning information shown on the plans. Additional benchmarks may be established and CONTRACTOR shall provide AGENT with a copy of field notes prepared during the establishment of any additional benchmarks. The CONTRACTOR shall furnish such stakes, buoys, equipment, tools, and qualified personnel as may be required in laying out any part of the WORK and for maintaining such staking as necessary for completion of the WORK.

A Professional Surveyor and Mapper registered in Florida shall conduct pre- and post-dredge surveys to verify channel depths (-5.23 ft NAVD88) and material volumes. The CONTRACTOR shall maintain survey control throughout the project, ensuring compliance with design specifications.

2.5 Dredging Specifications and Restrictions

The work shall achieve a navigable depth of -5.2 feet NAVD88 with a channel bottom width of 30 feet, as specified in the Contract Drawings. The following restrictions apply:

- Sauerman drag-type equipment pulled between barges is prohibited.
- Sediment material loss over barge sides shall be prevented during loading, unloading, and transit.
- No dredged material shall be unloaded or placed back into the waterway without prior AGENT approval.
- Use of explosives or excavation of rock is prohibited.
- Sweeping of sediment within the waterway using an excavator bucket is prohibited.
- Dredging barges shall not be maneuvered via pushing or pulling of excavator bucket.
- Equipment shall be sized to fit within the dredge footprint width; equipment larger than the footprint is prohibited.
- No excavation shall be performed closer than 10 feet from seawalls, docks, boat lifts, or other structures, except where modified by bridge-specific restrictions.

The CONTRACTOR shall protect existing infrastructure (e.g., docks, seawalls, channel markers) and avoid impacts to mangroves, seagrass beds, and oyster beds outside the channel footprint, per benthic survey (Appendix F).

Due to the imprecise nature of dredging, a tolerance of +/- 6 inches is acceptable for the specified navigable depth. Sloughing of material on channel side slopes is expected due to the natural

instability of unconsolidated sediments and environmental factors. Channel side slopes are designed at a slope of 2:1 to balance stability and navigable width. The CONTRACTOR shall monitor sloughing during dredging operations and ensure that any material accumulation within the channel does not compromise the specified navigable depth or width. If excessive sloughing occurs, the CONTRACTOR shall promptly report it to the AGENT and implement corrective measures, such as re-dredging or slope stabilization, as approved by the AGENT, to maintain the channel's design specifications. Excessive sloughing will be defined as encroachment of greater than 50% of the plan vertical sediment dredge depth.

2.6 Dredged Material Management Area (DMMA)

2.6.1 General

Work includes furnishing all labor, materials, equipment, and services necessary for the construction, operation, and maintenance of a Dredged Material Management Area (DMMA) for the placement and treatment of contaminated dredged material from AREA 1. The DMMA will accommodate mechanically or hydraulically dredged sediments and incorporate geotextile tubes and lined cells for containment and dewatering. For the AREA 2 dredged material, no lined cells or geotextile dewatering restrictions are required, provided the soils are mechanically mixed as described in Section 2.7. The facility shall be constructed at the designated site located at Phillippi Estate Park, 5500 S. Tamiami Trail, Sarasota, FL 34231, or other approved site including 2792 Valencia Dr., Sarasota, FL 34239 and 2404 Nassau St., Sarasota, FL 34231.

2.6.2 References

- EM 1110-2-5027 – USACE Confined Disposal of Dredged Material
- FDEP Discharge and Effluent Guidelines
- ASTM D4355 – Deterioration of Geotextiles from UV Exposure
- ASTM D4751 – Apparent Opening Size (AOS) of Geotextiles

2.6.3 DMMA Preparation Plan

The CONTRACTOR shall submit a DMMA Preparation Plan describing the proposed site layout, including the arrangement of geotextile tubes and the configuration of containment berms. The Plan shall include geotextile manufacturer data and certifications, and, if applicable, a description of the polymer conditioning system to be employed. The CONTRACTOR shall also provide a return water sampling and discharge plan identifying sampling locations, frequency, and methods of analysis, as well as a dewatering progress monitoring plan that describes how dredged material volumes and dewatering rates will be tracked throughout the operation.

The CONTRACTOR shall perform a pre-construction field survey of the DMMA site to verify existing grades and conditions prior to mobilization. Upon completion of DMMA construction (berms, geotextile tube arrangement, return water structures, and other features), the CONTRACTOR shall conduct an as-built survey prepared and signed by a Florida-licensed

Professional Surveyor and Mapper. The as-built survey shall include elevations, dimensions, and locations of all containment berms, geotextile tubes, discharge/decant structures, and return water controls. A copy of the as-built drawings shall be submitted to the ENGINEER with copies to the OWNER and AGENT for review and approval prior to the commencement of dredged material placement in the DMMA. Any deviations from the approved site layout plan must be identified on the as-built drawings and approved by the ENGINEER prior to use

2.6.4 Quality Assurance

Quality assurance for the DMMA shall include the installation of geotextile tubes by experienced personnel who have completed at least three (3) similar projects, ensuring proper expertise in handling and placement. All liner and berm construction must be thoroughly inspected and approved prior to any material placement to verify structural integrity and compliance with design specifications. Additionally, dewatering and containment processes shall fully comply with applicable USACE, FDEP, and local permit conditions to maintain environmental standards and prevent any unauthorized discharges or impacts.

2.6.5 Products

Geotextile tubes shall consist of high-strength woven polypropylene fabric to ensure durability and effective containment of dredged material. The fabric must exhibit UV resistance in accordance with ASTM D4355, retaining a minimum of 70% strength after 500 hours of exposure. Additionally, the apparent opening size (AOS) shall range from 0.3 to 0.6 mm, with a tensile strength of at least 400 lb/in as tested per ASTM D4595. Factory seams must be stitched or heat sealed for integrity, and the tubes shall have a typical circumference of 45 to 60 feet, with lengths determined site-specifically to accommodate project needs.

The containment liner, if applicable, shall be high-density polyethylene (HDPE) with a minimum thickness of 30 mil to provide robust impermeable barriers. Seams must be formed using double hot-wedge welds and tested in compliance with ASTM D4437 to verify watertight connections. Protection shall include a geotextile cushion layer beneath the liner where subgrade conditions necessitate it to prevent damage. Furthermore, a liner anchoring trench is required at the perimeter to secure the system against movement and ensure stability during operations.

Polymers, if required for sediment dewatering, must be non-toxic and approved by the FDEP to meet environmental safety standards. The application system shall incorporate inline mixing and dosage control mechanisms to achieve precise and effective conditioning of the dredged material.

2.6.6 Execution

For site preparation, the CONTRACTOR shall clear, grade, and compact the DMMA footprint to the design elevation to establish a stable base for operations. An HDPE liner and protective underlayment shall be installed, ensuring complete coverage and secure anchorage to prevent leakage or displacement. Earthen berms shall be constructed to the specified crest height and

slope, maintaining a minimum elevation of 2 feet above the final geotextile tube elevation to provide adequate containment and structural integrity.

Geotextile tube installation shall involve placing the tubes in accordance with the approved layout, ensuring provisions for access and, where permitted, stacking to optimize space usage. Inlets and outlets must be securely fastened to maintain integrity during filling, with care taken to avoid overstressing the tubes to prevent damage or failure. The staging of tubes shall be managed to ensure even filling and allow for proper drainage between lifts if stacking is proposed, facilitating effective dewatering and containment.

For material placement in mechanical dredging operations, dredged material shall be stockpiled or loaded into feed hoppers, then pumped or placed directly into sealed containers or barges for transport to the DMMA or approved disposal site. This process shall ensure minimal sediment resuspension and compliance with environmental permit conditions, maintaining containment and preventing material loss during handling and transport.

2.6.7 Alternative DMMA

The primary DMMA for this Project is Phillippi Estate Park (5500 S. Tamiami Trail, Sarasota, FL 34231). This is the approved County site for dredged material management. In addition, Sarasota County has identified optional County-approved sites that may be utilized for dredged material placement, subject to written approval from the OWNER and ENGINEER and authorization from all applicable permitting agencies prior to construction commencement.

The CONTRACTOR may also propose the use of private property sites for staging, dewatering, or final placement of dredged material. Any such private sites shall require a written agreement between the CONTRACTOR and property owner, indemnifying Sarasota County, WCIND, and the ENGINEER of any liability. Agreements shall be submitted to the OWNER and AGENT prior to use. The CONTRACTOR shall be responsible for all permitting, approvals, construction, maintenance, and restoration of such private sites at no additional cost to the OWNER or AGENT. All sites, whether public or private, shall be restored to pre-construction condition to the satisfaction of the property owner and OWNER prior to Final Acceptance. Documentation from each property owner confirming satisfactory restoration shall be provided prior to final payment. Approval of an alternative site by the OWNER or AGENT shall not relieve the CONTRACTOR of responsibility to obtain all regulatory approvals prior to use.

2.6.8 Disposal Requirements

All dredged material shall be transported and disposed of at the Sarasota County Landfill (4000 Knights Trail Road, Nokomis, FL 34275) or at an alternative location approved in advance by the AGENT and County. The OWNER may, at its discretion, direct that a portion of the dredged material meeting applicable standards be beneficially reused in roadway construction or other public works projects or other OWNER-approved uses, provided the material meets applicable regulatory standards. The CONTRACTOR shall coordinate with Sarasota County and the designated receiving site if beneficial reuse is directed. The CONTRACTOR may propose an

alternative final disposal or beneficial reuse location; however, such proposal must be submitted within 60 days of Contract award and shall include documentation of site authorization, environmental acceptability, regulatory compliance, and capacity. Approval by the OWNER and AGENT, as well as all permitting agencies, is required prior to mobilization. If the CONTRACTOR is unable to obtain required approvals within the specified timeframe, the material shall be disposed of at the Sarasota County Landfill. The CONTRACTOR shall not be entitled to claim additional costs or delays for failure to obtain approvals for an alternative site.

Prior to mobilization the CONTRACTOR shall submit a Dredged Material Disposal Plan for ENGINEER approval. The plan should detail proposed hauling routes including Maintenance of Traffic (Section 2.6.11), staging areas, landfill/disposal coordination contacts, and any beneficial reuse options if applicable.

2.6.9 Coordination with County Solid Waste Department

The CONTRACTOR shall coordinate closely with the Sarasota County Solid Waste Department for dredged material disposal, including scheduling, testing, and compliance with landfill requirements. The CONTRACTOR shall submit a dredge spoil transportation plan to the County prior to the Pre-Construction Conference, specifying entry and exit routes approved by the County and measures to prevent leakage or spillage during transport. Any spillage on County streets shall be cleaned up immediately at the CONTRACTOR's expense.

2.6.10 Dredged Material Testing

Prior to acceptance for disposal at the Sarasota County Landfill or any approved alternative facility, dredged material shall be sampled and analyzed in accordance with all landfill permit and regulatory requirements. Testing shall include, at a minimum, metals (including but not limited to arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc), total petroleum hydrocarbons (TPH), polynuclear aromatic hydrocarbons (PAHs), pesticides, herbicides, and polychlorinated biphenyls (PCBs), unless otherwise approved in writing by the AGENT. All sampling shall be performed in accordance with EPA SW-846 protocols. The CONTRACTOR shall be responsible for all costs associated with sampling, laboratory analysis, and reporting including any additional testing required by regulators. Analytical results shall be provided to the ENGINEER, AGENT, and landfill operator for review at least fourteen (14) days prior to delivery of any dredged material to the landfill.

2.6.11 Maintenance of Traffic (MOT)

The CONTRACTOR shall be responsible for preparing, submitting, and implementing a Maintenance of Traffic (MOT) Plan for all hauling activities associated with access to and from the DMMA site. The MOT Plan shall be prepared in accordance with the latest edition of the FDOT Standard Specifications for Road and Bridge Construction, Section 102 (Maintenance of Traffic), the FDOT Design Standards for Work Zone Traffic Control, and the Manual on Uniform Traffic Control Devices (MUTCD). The MOT Plan shall be submitted to the Engineer and Sarasota County for review and approval at least fourteen (14) days prior to mobilization.

The MOT Plan shall describe the designated haul routes between the dredge site, the DMMA, and approved upland disposal facilities, and shall identify the methods to be used for maintaining safe ingress and egress at the DMMA entrance located at 5500 S. Tamiami Trail (US-41) or other approved access points. The CONTRACTOR shall address traffic control devices, flaggers, signage, lane or shoulder closures, and coordination with Sarasota County and FDOT for any required permits. The Plan shall also describe measures for dust suppression, control of debris and material tracking onto public roads, and daily inspection of traffic control devices.

The CONTRACTOR shall be solely responsible for verifying and complying with all applicable weight restrictions and load limits on roads, highways, and bridges used for hauling dredged material. Any required permits, notifications, or route modifications to ensure compliance shall be obtained and implemented by the CONTRACTOR at no additional cost to the OWNER.

During the work, the CONTRACTOR shall maintain safe and continuous access for residents, businesses, pedestrians, and emergency vehicles along the haul routes at all times. Truck movements into and out of the DMMA site shall be conducted only during permitted working hours (7:00 a.m. to 7:00 p.m., Monday through Saturday, unless otherwise approved). All traffic control devices shall conform to MUTCD standards and shall be kept in good working order. Any damage to County or State roadways caused by hauling operations shall be promptly repaired by the CONTRACTOR at no additional cost to the OWNER.

2.7 Contaminated Material Handling

The dredged material is assumed to contain contaminants, including but not limited to chromium, requiring strict containment to prevent re-entry into the waterway. CONTRACTOR shall adhere to the following requirements for both hydraulic and mechanical dredging:

- **Hydraulic Dredging**: Employ Best Management Practices to minimize sediment resuspension. Use geotextile containment systems (GCSs) and/or HDPE-lined containment systems for dewatering contaminated sediment. Return water from dewatering shall be tested per TS-6.5.3 before discharge. GCSs or HDPE liners shall be removed and disposed of at a permitted facility upon project completion.
- **Mechanical Dredging**: Use closed (environmental) buckets to minimize sediment resuspension. Dredged material shall be placed directly into sealed containers or barges. Barges and equipment shall be inspected daily to prevent leaks. Conduct loading/unloading within contained areas surrounded by turbidity curtains.
- **General Requirements**: Submit a Contaminated Material Management Plan detailing equipment, containment, testing, and disposal. Cease dredging and notify WCIND, Sarasota County, and FDEP if unanticipated releases occur. Maintain daily logs and submit weekly reports. Dispose of contaminated sediment at a permitted upland facility, with records submitted to AGENT and FDEP.

For the AREA 2 dredging area, dredged material may be managed as a traditional dredge operation (pump/haul to DMMA with no dewatering restrictions). Prior to or during placement in the DMMA, the CONTRACTOR shall mechanically mix the soils to ensure that material is well blended. This mixing is intended to reduce arsenic concentrations to below the applicable SCTLs.

The CONTRACTOR shall be responsible for mechanical mixing of AREA 2 material in the DMMA to ensure compliance with applicable SCTLs prior to beneficial reuse or final disposal. No additional handling or containment measures are required for this material unless otherwise directed by the ENGINEER or regulatory agencies. Documentation of mixing procedures and representative post-mixing sampling results shall be submitted to the ENGINEER prior to removal from the DMMA.

2.8 Bridge-Specific Dredging Restrictions

Dredging operations near bridges shall comply with the following restrictions to protect infrastructure and minimize scour risks:

- **Bridge 170164 (US-41):** Dredging permitted as needed beneath and adjacent. Maintain 10-foot horizontal buffer from pile locations. Use low-impact methods within 50 feet. Conduct pre-construction visual inspections.
- **Bridge 170165 (US-41):** Dredging permitted per the construction drawings with a reduced width channel footprint. Maintain 10-foot horizontal buffer from pile locations. Piles are spaced approximately 28 ft apart to be verified by CONTRACTOR. Establish no-dredge zone marked with buoys. Conduct pre-construction visual inspections.
- **Bridge 170072 (Proctor Road):** No dredging directly beneath (scour critical). Maintain 25-foot offset upstream and downstream of bridge pilings. Establish no-dredge zone marked with buoys. Conduct pre-construction visual inspections.
- **Bridge 174065 (Bee Ridge Road)**: No dredging directly beneath (scour critical). Maintain 10-foot horizontal buffer from pile locations. Establish no-dredge zone marked with buoys. Conduct pre-construction visual inspections.
- **Bridge 174069 (South Tuttle Avenue)**: Dredging permitted as needed beneath and adjacent. Maintain 10-foot horizontal buffer from pile locations. Use low-impact methods within 50 feet. Conduct pre-construction visual inspections.
- **Monte Carlo Drive**: Dredging permitted as needed beneath and adjacent. Maintain 10-foot horizontal buffer from pile locations. Piles are spaced approximately 40 ft apart to be verified by CONTRACTOR. Use low-impact methods within 50 feet. Conduct pre-construction visual inspections.
- **General**: Submit Bridge Protection Plan detailing methods, buffers, scour monitoring. Coordinate with FDOT/County. Cease work if scour observed and notify AGENT. An inspector or ENGINEER's representative shall be present during all dredging operations conducted in the vicinity of bridges. The CONTRACTOR shall provide a minimum of forty-eight (48) hours advance written notice to the ENGINEER prior to initiating any construction activity near bridges.

The CONTRACTOR shall be responsible for field verifying all bridge clearances prior to the commencement of work. Verification shall include measurement of vertical and horizontal clearances under current site conditions, accounting for tidal variation, water level fluctuation, and any obstructions that may affect access or navigation.

2.9 Supplemental Private Dredging

Supplemental private dredging (e.g., around docks, seawalls, or moorings) may be performed only after completion and acceptance of the AGENT's dredging work. CONTRACTOR shall:

- Obtain all necessary federal, state, and local permits and pay associated fees.
- Coordinate with the County Solid Waste Department for disposal.
- Provide copies of agreements with private residents and permit documents to the AGENT prior to commencing work.
- Indemnify the AGENT against any liability resulting from supplemental dredging activities.

Work completed under this item shall not be separately compensable and is at the CONTRACTOR's discretion, subject to AGENT approval.

2.10 Site Restoration

2.10.1 General

The CONTRACTOR shall be responsible for restoring all areas disturbed by construction activities, including access, staging, dredge material management areas, and roadway areas beyond the project, to their pre-project condition to the satisfaction of AGENT and OWNER, before the project will be considered to be substantially complete. Existing vegetated areas should be avoided if practical. If additional storage is required for construction equipment and materials, arrangements for such storage facilities shall be the responsibility of the CONTRACTOR and must be coordinated with and approved by the AGENT. Should CONTRACTOR activities result in violations of permit conditions or other regulations, the CONTRACTOR shall be responsible for remediation of those activities to the satisfaction of the agency responsible for the permit or regulation and CONTRACTOR shall also be responsible for payment of any penalties as a result of those actions.

2.10.2 Cleanup

Special measures shall be taken to prevent bilge usage of effluent, chemicals, fuels, oils, greases, and bituminous materials from entering the water. Disposal of any materials, wastes, effluent, trash, garbage, oil, grease, and chemicals, etc., in and adjacent to the project site shall not be permitted. If any waste materials are dumped in unauthorized areas, the CONTRACTOR shall remove the material and restore the area to the original condition as it existed before being disturbed. If necessary, contaminated ground shall be excavated, disposed of as directed by the AGENT, and replaced with suitable compatible fill material at CONTRACTOR's expense.

2.10.3 Site Restoration Plan

Submit a Site Restoration Plan detailing restoration of staging areas, DMMA, access locations to pre-construction conditions, including regrading and revegetation. Restore the construction staging area, dredge material management area, and all access areas of the WORK to their pre-construction condition as appropriate.

2.11 Variations in Quantities

The quantity shown on the Bid Form is an estimated quantity based on the hydrographic survey of the areas to be dredged, and changes may have occurred since that survey was completed. Due to the relatively small size of the project, a small variation in pay quantity may be a relatively high percentage of the project. If the actual available pay quantity exceeds the originally estimated quantity upon which bids were based by 30% or more, due to the economy of scale, the AGENT shall have the right to negotiate a lower unit price for material dredged. If the actual available pay quantity is less than the originally estimated quantity upon which bids were based by 30% or more, due to the economy of scale, the CONTRACTOR shall have the right to negotiate a higher unit price for material dredged. If post-construction surveys identify shoals, lumps, or other deficiencies in achieving the required dredging depth, width, or slope, the CONTRACTOR shall re-dredge the affected areas at no additional cost to meet Contract requirements. Re-dredging costs are included in the lump sum bid price and shall not be separately compensable. This requirement applies to both AREA 1 and AREA 2.

2.12 Navigation Aids and Waterway Markers

Any navigation aids, regulatory markers, or signage removed, disturbed, or damaged by the CONTRACTOR shall be replaced or restored to original condition within forty-eight (48) hours, at no cost to the Agent or Owner. The CONTRACTOR shall coordinate with the Florida Fish and Wildlife Conservation Commission (FWC) pursuant to F.A.C. Rule 68D-23 for the removal, relocation, or replacement of any waterway markers under FWC jurisdiction. All such work shall be conducted in compliance with FWC requirements, and the CONTRACTOR shall obtain any necessary written authorization from FWC prior to removing or relocating markers.

In addition, the CONTRACTOR shall be responsible for coordinating with the United States Coast Guard (USCG) to ensure that a Notice to Mariners is issued in sufficient time to advise the boating public of upcoming dredging activity and any temporary changes to navigation aids. The CONTRACTOR shall provide the USCG with all necessary information for publication of the Notice to Mariners and shall furnish evidence of such filing to the Agent.

Throughout construction of the WORK, the CONTRACTOR shall place and maintain temporary markers and buoys, as approved by FWC and/or USCG, so that the work area is clearly identified and the public is advised to avoid and stay out of the construction zone. No unmarked pilings or obstructions shall be left in the waterway at any time.

The CONTRACTOR shall conduct the WORK to minimize obstruction to navigation during normal working hours (7:00 AM–7:00 PM, Monday–Saturday), ensuring safe passage for recreational and emergency vessels. Equipment, pipelines, buoys, and other markers shall be promptly removed during non-working periods, weekends, and any suspension of work to allow safe

passage. The CONTRACTOR shall maintain close communication with Sarasota County regarding traffic conditions and navigation-related issues. Barge operations shall occupy less than one-half of the waterway width to allow manatee passage, or a dedicated observer shall be provided.

2.13 Initial Pre-Construction Activities

Upon contract award, the CONTRACTOR is authorized to perform the following pre-construction activities:

- Coordinate with utility companies to identify and resolve potential conflicts.
- Submit a construction schedule detailing the sequence and timing of work activities.
- Submit a Preliminary Construction Plan as specified in the Instructions to Bidders.
- Submit a subcontractor list, including company name, contact person, title, address, phone number, and specific work elements.
- Submit an emergency contact list with names, titles, and phone numbers.
- Identify and submit staging areas and Governmental Earthmoving Exemption/permit information to Sarasota County Resource Protection for approval.

2.14 Utility Coordination

The CONTRACTOR shall call Sunshine 811 to confirm the presence of any underground utilities including gas, electric power, water, telephone, cable, and other utility companies prior to commencing the WORK to determine the exact location and provide for the protection of all utilities within the project limits. No special investigations of underground utilities have been conducted by OWNER or AGENT. The CONTRACTOR shall include utility coordination measures in the Preliminary Construction Plan and report any identified conflicts to AGENT and the OWNER.

2.15 Coordination with County Dredge Project

If there is overlap with OWNER's upstream dredging project, the CONTRACTOR shall develop and implement a coordination plan, to be included in the Preliminary Construction Plan, addressing shared use of staging areas, disposal schedules, navigation management, and joint environmental monitoring for turbidity and protected species. The CONTRACTOR shall maintain regular communication with the OWNER's contractor and AGENT, providing weekly updates on coordination efforts.

2.16 Payment and Completion

The contract price is the total compensation payable to the CONTRACTOR for performing all the WORK in accordance with the Contract Documents. This includes compensation for all required

labor, surveys, permits, testing, incidental, supply, application, transportation, services, or installation of an item of the WORK and may include overhead and profit. The following bid items are described in order to assist the CONTRACTOR in the preparation of his/her bid and to assist the ENGINEER in the evaluation of bids and progress payments during construction. Payment for each item will be subject to a retainage as specified in the Contract Documents. No separate payment will be made for testing, surveying, submittals, administrative, overhead, quality control, or other associated tasks required to complete the WORK and should be included in the CONTRACTOR's bid.

Supporting documentation shall be submitted to the ENGINEER for approval by the OWNER for payment to be processed. Payment will not be processed and issued for any of the following:

a) Any rejected work
b) Products deemed unacceptable prior to work.
c) Products deemed unacceptable after work.
d) Loading, hauling, and disposal of rejected material(s).
e) Excess products and surplus remaining after completion of work.
f) Additional work implemented to expedite CONTRACTOR's operations.
g) Products and residuals not completely removed from transportation equipment.
h) Products wasted or discarded in a manner that is not acceptable.
i) Products positioned or displaced beyond the limits and levels of the required work.
j) Repairs and replacement of property located within or adjacent to the work Site.
k) Maintaining the approved Quality Control Plan
l) Preparation of submittals

Payment for completed work will not be made until the ENGINEER has reviewed and approved the CONTRACTOR submitted payment applications, acceptance surveys, as-built surveys, and other required submittals specified herein.

2.16.1 Lump Sum Payment Items

Payment for work in the following sections will be paid by lump sum for the following bid items:

a) Payment for Mobilization/Demobilization will be issued at the lump sum price for [Item No. 1.1 and 2.1, Mobilization and Demobilization, in the Bid Schedule.]
b) Payment for DMMA Preparation and Management will be issued at the lump sum price for [Item No. 1.4 and 2.4, DMMA Preparation and Management, in the Bid Schedule.]
c) Payment for Turbidity Control and Monitoring will be issued at the lump sum price for [Item No. 1.5 and 2.5, Turbidity Control and Monitoring.]
d) Payment for Surveys will be issued at the lump sum price for [Item No. 1.6 and 2.6, Surveys, in the Bid Schedule.]
e) Payment for restoration of the staging and DMMA sites will be issued at the lump sum price for [Item No. 1.8 and 2.8, Site Restoration, in the Bid Schedule.]

Payment for lump sum items will be processed according to the percent completion of pay item and upon approval by the OWNER based on recommendations by the ENGINEER.

2.16.1.1 Mobilization/Demobilization

The work specified in this section consists of the preparatory work and operations in mobilizing for beginning the WORK, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site, and for the establishment of temporary offices, buildings, utilities, traffic control, safety equipment, first aid supplies, sanitary, and other facilities, as required by the Contract Documents. The cost of bonds, any required insurance, and any other preconstruction expense necessary for the start of the WORK, excluding the cost of construction materials, shall also be included in this section. The section also includes work required to demobilize from the project site.

Mobilization shall be completed in adequate time for satisfactory performance of all work under the Contract. The CONTRACTOR shall inform the ENGINEER and OWNER of the date of mobilization at least seven (7) days prior to commencement of dredging operations. Mobilization shall include at a minimum of the following:

a) The movement and setup of equipment including dredging plant, work boats, scows, barges, tugboats, cranes, and all other equipment to the work site prior to commencement of dredging activities.
b) Installation, moving, and maintenance of any required temporary boating barriers and markers and the temporary debris catch barrier.
c) The establishment of all CONTRACTOR's personnel, field offices, staging areas, buildings, utilities, and other facilities needed for the performance and execution of the WORK and all other work and operations which must be completed for costs incurred prior to commencement of dredging.
d) Establishing survey control baseline(s), markers, and tide board.
e) Conducting initial verification survey for layout, placement and maintenance of markers and buoys.
f) Completing all preliminary notifications and project regulatory approvals.

Demobilization shall include at a minimum of the following:

a) The breakdown and movement of equipment including dredging plant, work boats, scows, barges, tugboats, cranes and all other equipment from the work site.
b) Removal of all excess materials and supplies, appurtenances, construction debris and the like from the work site upon completion of the WORK.
c) Removal and maintenance of any required temporary boating barriers and markers and the temporary debris catch barrier.
d) Removal of all CONTRACTOR's field offices, staging areas, buildings, utilities, and other facilities needed for the performance and execution of the WORK and all other work and operations which shall be completed for costs which shall be incurred prior to commencement of dredging.
e) Restoration of any features and structures that were removed or damaged during the performance of the WORK.

f) Restoration of adjacent areas including upland structures.
g) Project Close Out Activities.

If any work has not been completed, including complete demobilization, or, if any shoals exist within the work area, the CONTRACTOR will be required to return to the site to complete said work without further delay. If the CONTRACTOR does not return to the site, all monies owed the CONTRACTOR shall be retained to complete the WORK in accordance with the contract terms. Any monies not utilized to complete the WORK will be paid to the CONTRACTOR.

The CONTRACTOR is not permitted to completely demobilize from the project site under any circumstances until the CONTRACTOR has completed and submitted the as built survey and the OWNER has issued written notice to the CONTRACTOR to demobilize from the work site. Any storm-related demobilization and remobilization is incidental to the Mobilization / Demobilization bid item unless otherwise approved by AGENT.

Payment for this item will be made as a lump sum (LS) for costs associated with or incidental to mobilization, demobilization, and establishment of initial project management and coordination, and will be paid for at the lump sum price on the Bid Schedule for "Mobilization and Demobilization". Upon completion of mobilization to the project site, commencement of dredging, and placement at least 1,000 CY (minimum) of dredged material into the designated disposal site, to be verified by AD and BD surveys; one (1) payment will be made to the CONTRACTOR for sixty percent (60%) of the lump sum Mobilization/Demobilization line item. The remaining forty percent (40%) of the lump sum will be payable to the CONTRACTOR in the final payment. Final payment for work under this Contract will be made following ENGINEER receipt and acceptance of all surveys, and successful completion of demobilization activities.

2.16.1.2 DMMA Preparation and Management

The work specified in this section consists of payment for labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with DMMA preparation and management needed to execute the work at the project site and will be paid for at the lump sum price on the Bid Schedule for "DMMA Preparation and Management". Progress payments will be made based upon the percent of the dredging completed and ENGINEER accepted each month, as calculated by volume. All costs associated with DMMA preparation and management, including DMMA site preparation, installation of liners, berms, geotextile tubes, erosion controls, dewatering systems, and maintenance of the DMMA necessary to complete the work are part of this item. The lump sum price shall also cover environmental monitoring (sediment and return water testing) and compliance with permit conditions. Acceptance of the work will be determined from review by the ENGINEER of monthly activities and CONTRACTOR reporting.

2.16.1.3 Turbidity Control and Monitoring

The work specified in this section consists of payment for labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with turbidity control and permit required turbidity monitoring. Payment for turbidity control and monitoring will be paid for at the lump sum price on the Bid Schedule for "Turbidity Control and Monitoring". All costs associated with turbidity control

and monitoring including installation and maintenance of turbidity curtains, daily inspections, turbidity monitoring, and turbidity reporting shall be included in the lump sum price for Turbidity Control and Monitoring. Acceptance of the work will be determined from review by the ENGINEER of monthly activities and CONTRACTOR reporting.

2.16.1.4 Surveys

The work specified in this section consists of payment for labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with bathymetric surveys to execute the work at the project site and will be paid for at the lump sum price on the Bid Schedule for "Surveys". Progress payments will be made based upon the percent of the dredging completed and ENGINEER accepted each month, as calculated by volume. All costs associated with surveying shall be included in the lump sum price for Surveying. Acceptance of the work will be determined from review by the ENGINEER of monthly activities and CONTRACTOR reporting.

2.16.1.5 Site Restoration

The work specified in this section consists of payment for labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with restoration of the DMMA, staging areas and any other upland areas altered by the work and will be paid for at the lump sum price on the Bid Schedule for "Site Restoration". Progress payments will be made based upon the percent of the work completed and ENGINEER accepted each month. All costs associated with restoration including restoring staging areas, DMMA, and access locations to pre-construction conditions, including regrading and revegetation as needed, shall be included in the lump sum price for Site Restoration. Acceptance of the work will be determined from review by the ENGINEER of monthly activities and CONTRACTOR reporting.

2.16.2 Unit Price Payment Items

For unit price items, the contract price will include an amount equal to the sum of the unit price for each pay item times and the estimated quantity of each item as indicated in the Contract Documents. Payment for work in the following sections will be paid by unit price for the following bid items:

a) Payment for maintenance dredging will be issued at the unit price for [Item No. 1.2 and 2.2, Maintenance Dredging to -5.23 ft NAVD88, in the Bid Schedule.]
b) Payment for dredge material handling and disposal including dewatering will be issued at the unit price for [Item No. 1.3 and 2.3, Dredged Material Handling and Disposal, in the Bid Schedule.]

2.16.2.1 Maintenance Dredging to -5.2 ft NAVD88

The work specified in this section consists of payment for labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with hydraulic or mechanical dredging achieving –5.23 ft NAVD88 depth. The work progress payments will be made to CONTRACTOR upon receipt and acceptance of surveys used for progress payments. Acceptance (BD/AD) surveys will be evaluated based on volumetric change (within the accepted dredge template) between the

ENGINEER approved BD survey and AD surveys. Payment for this item will be paid on a unit price basis by volume. Once accepted by ENGINEER, the pre-dredge bathymetric survey to be provided by CONTRACTOR will be used to evaluate all progress payments in which the CONTRACTOR is requesting payment.

All delays due to protected species observations (e.g., manatee, sea turtle, or sturgeon sightings), turbidity exceedances, or other environmental restrictions shall be considered incidental to the work, and no additional compensation or contract time will be granted.

2.16.2.2 Dredged Material Handling and Disposal

Payment for handling and disposal will be made at the contract unit price per cubic yard, based on the volume determined by acceptance (BD/AD) surveys conducted by a Professional Surveyor and Mapper, verifying the dredged material removed to -5.23 ft NAVD88. The unit price shall include all costs for dewatering, transport, containment, and disposal from the DMMA to an approved upland disposal area, including compliance with environmental permits and testing requirements. Acceptance (BD/AD) surveys will be evaluated based on volumetric change (within the accepted dredge template) between the ENGINEER approved BD survey and AD surveys. Payment for this item will be paid on a unit price basis by volume. Once accepted by ENGINEER, the pre-dredge bathymetric survey to be provided by CONTRACTOR will be used to evaluate all progress payments in which the CONTRACTOR is requesting payment. The CONTRACTOR shall submit truck tickets from the disposal site with each Application for Payment, detailing date, volume, and location, to verify proper disposal. The ENGINEER may request a sample of tickets (e.g., 10% of loads) or all tickets if discrepancies are noted, with non-compliance resulting in withheld payment until corrected.

2.16.2.3 Navigation Aids and Signage Removal and Replacement

Payment for this item shall be made on a unit price basis per each (EA) navigation aid, regulatory marker, buoy, or sign that is removed and subsequently reinstalled or replaced by the CONTRACTOR. The unit price shall include all labor, equipment, materials, coordination with the Florida Fish and Wildlife Conservation Commission (FWC) and the United States Coast Guard (USCG), permit compliance, temporary storage and protection, and all incidental work required to restore the marker or sign to service in accordance with F.A.C. Rule 68D-23 and applicable USCG requirements.

This pay item shall cover the full cost of removal, storage, transport, reinstallation in original or approved alternate location, and replacement in kind if damaged or lost. Any new marker or signage fabrication required by FWC shall be included in the unit price. CONTRACTOR shall provide to the ENGINEER pre-construction photos of each sign to be removed and the Latitude and Longitude coordinates of each sign to be removed. CONTRACTOR shall provide to the ENGINEER post-construction photographs of each sign re-installed and provide Latitude and Longitude coordinates of each sign re-installed.

Temporary markers or buoys necessary to maintain safe navigation during construction shall be considered incidental to the work and will not be separately compensated.

Measurement for payment shall be based on the actual number of navigation aids or signs removed and satisfactorily reinstalled or replaced in accordance with these Specifications, the Contract Drawings, and the requirements of FWC and USCG.

2.17 Change Orders

Any request by the CONTRACTOR for extension of the contract time shall be based on a written notice delivered by the CONTRACTOR to the OWNER with a copy to the ENGINEER promptly (but in no event later than seven (7) days) after the start of the occurrence or event giving rise to the request. The notice shall state the number of calendar days being requested and the reason (or reasons) for the need for the additional time. The ENGINEER will promptly investigate the stated reasons for the time extension, and shall render a non-binding opinion as to whether such reasons cause an increase in the time required for, performance of any part of the work under this Contract and shall make a non-binding recommendation for an adjustment to the contract time. CONTRACTOR and OWNER shall meet and discuss the ENGINEER's recommendation and shall attempt to negotiate a mutually acceptable adjustment. If the CONTRACTOR and OWNER reach an agreement, the terms of the adjustment shall be documented by a Change Order. The OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

a) Changes in the WORK where the OWNER and CONTRACTOR are in agreement with:
    i. The change in the WORK;
    ii. The amount of the adjustment, if any, in the contract price; and
    iii. The amount of the adjustment, if any, in the contract time.
b) Changes in the WORK, which are required because of acceptance of defective work or correcting defective work;
c) Changes in the contract price or contract time, or both, which are agreed to by the parties.

The OWNER and CONTRACTOR will execute appropriate Change Orders prepared by the ENGINEER covering changes in the WORK to be performed. The ENGINEER may prepare new Record Drawings when a Change Order is issued to document accepted alterations, substitutions, or other modifications.

2.17.1 Change in Conditions or Obstructions

If during execution of the WORK, CONTRACTOR encounters pre-existing latent, unknown, physical conditions differing material from those specified in the Contract Documents, or pre-existing latent, unknown, physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the WORK called for in the Contract Documents, the CONTRACTOR shall give immediate verbal notice to the ENGINEER and OWNER including details of specific differing site condition that it has encountered, before any disturbance of that condition and before any affected work is performed. The CONTRACTOR shall also notify the ENGINEER and OWNER in writing within three (3) days of the time it first

discovers or should have discovered (whichever occurs first) that which it claims constitutes a differing site condition.

Should CONTRACTOR fail to provide notification within three (3) days of the time of discovery the CONTRACTOR shall irrevocably waive any claim to a change order for anything that CONTRACTOR claims constitute a differing site condition.

2.18 Work Site Requirements

2.18.1 Limits of Construction

Site usage by the CONTRACTOR is limited to that area as necessary to accomplish the WORK within the limits of work as shown on the plans. The CONTRACTOR shall perform the work in a manner so as not to disturb any tidal flats or natural resource beds outside of the dredging limits. The CONTRACTOR shall establish and maintain baselines and control throughout the project duration, as approved by the ENGINEER, to maintain the work within the limits indicated by the plans.

2.18.2 Security and Restriction of Public Access

The CONTRACTOR is wholly responsible for providing security for the work area during construction. Any security fencing which the CONTRACTOR may have installed shall be removed at the end of construction.

2.18.3 Construction Access

The ENGINEER shall have unlimited access to the dredge, disposal area, and all CONTRACTOR vessels. The CONTRACTOR shall furnish, at the request of the ENGINEER, safe and suitable transportation from the shore to and from the various pieces of equipment, including the dredge, barges, to and from the disposal site, or as required to administer the Contract Documents. Such requests by the ENGINEER or AGENT will be coordinated with the CONTRACTOR's work schedule, except in case of emergency. The presence or absence of the ENGINEER shall not relieve the CONTRACTOR of the responsibility for the proper execution of the WORK in accordance with the Contract Documents.

2.18.4 Signal Lights

The CONTRACTOR shall display signal lights and conduct their operations in accordance with the current General Regulations of the Department of the Army and of the USCG governing lights and day signals.

2.18.5 Staging and Storage Areas

The CONTRACTOR shall be responsible for locating, securing, and paying for all staging and storage areas outside of County-owned property and rights-of-way, unless otherwise specified in

the Contract Documents. All proposed staging and storage areas, including any within the Project limits, shall be submitted to the OWNER and AGENT for review and written approval prior to use.

The CONTRACTOR shall submit a detailed site plan outlining all properties that will be utilized for staging and storage. The plan shall be designed to minimize disruption to adjoining properties and shall include:
a. A minimum ten-foot (10') setback maintained along all property boundaries and any right-of-way lines. This setback area shall not be used for any Project purpose, including driving or parking.
b. Identification of all uses on the property, including material locations, proposed heights of stored material, equipment staging, and location of construction trailers.
c. Daily clean-up, dust control, and waste removal procedures to maintain sanitary and safe site conditions.
d. Noise, odor, and visual mitigation measures, including installation of appropriate fencing and/or screening.

Privacy Fence Requirement – The staging area shall be enclosed on all sides, including along any right-of-way line, with a privacy fence a minimum of eight feet (8') in height or the height of stored material, whichever is greater. The fence shall obstruct views into the staging area and be maintained in good condition for the duration of the Project.

All staging and storage operations shall comply with applicable County permitting requirements for earth-moving activities, and the CONTRACTOR shall obtain all required permits prior to mobilization.

2.19 Operations

2.19.1 Transport, Handling, and Storage

A description of the methods selected by the CONTRACTOR for dredged material transport shall be submitted as a part of the Dredging Work Plan. Transport methods, equipment, and attendant plans shall be in satisfactory operating condition, capable of efficiently performing the WORK as set forth in the Contract Documents and shall be subject to inspection by the ENGINEER prior to beginning the work and at all times during construction. The CONTRACTOR shall include the approved upland disposal location in the Dredging Work Plan.

2.19.1.1 Fuel Handling and Storage

A secondary containment unit, which is capable of holding a minimum of 110% of the tank contents, shall be provided by the CONTRACTOR for each fuel storage tank. At a minimum, fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at corners right below the bibb. Edges of the pans shall be 8-inch minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and waste disposed of offsite in an approved area.

In accordance with the USCG regulations (33 CFR 156.120), couplings used in fuel oil transfer operations on any vessel with a capacity of 250 or more barrels of oil (or fuel) shall be either a bolted or full-threaded connection; or a quick-connect coupling approved by the Commandant; or an automatic back-pressure shutoff nozzle used to fuel the vessel. An executed fuel oil transfer (Declaration) form signed by the tanker man shall be completed for each refueling operation. The USCG shall also be notified prior to any refueling in accordance with applicable regulations.

2.19.1.2 Stockpiling

The CONTRACTOR shall stockpile excavated material in the approved upland disposal area in accordance with health and safety procedures. The CONTRACTOR shall segregate and stockpile dredged material in accordance with the following:

a) Cover all stockpiles when not in use.
b) Post signs indicating type of material stockpiled in each pile. Post signs that are readable from all directions of approach to each stockpile. Signs should be clearly worded and readable by equipment operators from their normal seated position.
c) Confine stockpiles to within approved work areas.
d) Do not stockpile excavated material adjacent to excavations, unless excavation side slopes and excavation support systems are designed, constructed, and maintained for stockpile loads.
e) Do not stockpile excavated materials near or over existing facilities, adjacent property, or completed work, if weight of stockpiled material could induce excessive settlement.

The CONTRACTOR shall provide sufficient storage capacity to allow for testing (if required) and/or passive dewatering of the materials after excavation and before disposal, in accordance with the disposal facility's requirements. Each containment area shall be maintained for the duration of the period when that material is being excavated. If an impoundment area that is used for the storage of contaminated materials to be disposed in a Class I landfill, is proposed to be converted for the storage of a material that is planned for disposal as a clean fill, the impoundment liner system shall be replaced prior to conversion to its new use.

2.19.2 Underground Utilities

The CONTRACTOR shall notify and contact the appropriate authorities prior to commencing operations. The CONTRACTOR shall complete the following, as applicable, with regards to work around underground utilities:

a) CONTRACTOR shall obtain digging permits prior to start of excavation and comply with installation requirements for locating and marking underground utilities.
b) Utility locating services should be contacted a minimum of forty-eight (48) hours or two (2) business days prior to excavating in which time, local utilities companies are required to respond and mark utilities. Advanced notice of at least 48 hours is required if the work occurs on a Monday or after a Holiday. Location marks are valid for thirty (30) calendar days in Florida and shall be renewed prior to expiration if work schedule will exceed the thirty (30) day period.

c) CONTRACTOR responsible for identification of all utilities and utility locations within the work area. Utility locations indicated on the contract plans are for information purposes only and must be CONTRACTOR within area of work prior to the commencement of dredging. CONTRACTOR is responsible for identifying and marking all other utilities not managed and located by the local utility companies. Construction site shall be scanned with Ground Penetrating Radar (GPR), electromagnetic or sonic equipment, as applicable. Surfaces where existing utilities (or utilities encased in pier or offshore structures) are identified shall be marked clearly. Elevations of any existing piping, utilities, and any type of underground (or encased) obstructions (not identified or specified to be removed) that is discovered during scanning shall be verified.
d) The CONTRACTOR is responsible for identifying and assessing any possible impacts to utilities that may be caused as a result of changes proposed by the CONTRACTOR and the CONTRACTOR shall notify the ENGINEER in writing of any possible impacts to utilities.
e) An approval by the OWNER of a CONTRACTOR proposed change does not relieve the CONTRACTOR of sole responsibility for all utility impacts, delays, costs or damages as a result of changes in design or construction initiated by the CONTRACTOR.

2.19.3 Boat Traffic and Navigation

The CONTRACTOR shall conduct his operations to minimize interruptions with passing vessels in the adjacent waters not actively being dredged. However, the CONTRACTOR shall exclude the public from the work areas, including in the immediate vicinity of active dredging or material placement operations. Enforcement, including any required signage or barriers, shall be CONTRACTOR's responsibility at no additional cost to AGENT. When appropriate, the enforcement shall be coordinated with local law enforcement agencies and will be subject to approval of ENGINEER.

The CONTRACTOR shall conduct his operations in such a manner that does not permit material or other debris to be pushed outside of dredging limits or otherwise deposited in existing side channels, basins, docking areas, or other areas being utilized by vessels. The CONTRACTOR will be required to modify his method of operations as needed to comply with the above requirements. Should any bottom material or other debris be pushed into areas described above, as a result of the CONTRACTOR 's operations, the same shall be promptly removed by and at the expense of the CONTRACTOR to the satisfaction of the ENGINEER.

The boating traffic using the Project area is generally low draft recreation vessels on high tide. Depending on the type and size of equipment used by the CONTRACTOR, there may or may not be ample room in the areas to be dredged to accommodate regular boating traffic without some interference with the dredging operations. The CONTRACTOR should investigate this situation and, coupled with the choice of equipment, determine what impact these conditions will have on the dredging operation. Barge operations shall occupy less than half the waterway width to allow manatee passage, or a dedicated observer shall be provided

2.19.4 Dewatering

All dewatering operations shall be completed in compliance with local water quality regulations and the environmental permits. Dewatering liquids shall be characterized to verify compliance with water quality discharge limits prior to commencement of operations. Dewatering liquids exceeding water quality standards shall be treated prior to discharging into the canals, waterways, and sanitary or storm sewers if necessary to comply with water quality standards.

2.20 Quality Control

The CONTRACTOR shall establish and maintain a Quality Control Plan, acceptable to the ENGINEER and OWNER, to assume quality control of the construction. Under this plan, the CONTRACTOR shall be responsible for and supervise the work of all subcontractors, providing guidance and instructions to each in the event their work does not comply with the requirements of the Contract Documents. The CONTRACTOR shall continue to monitor and coordinate the work of each subcontractor to ensure that deficiencies are correct in a timely manner to minimize delays and maintain the efficiency and progress of the work.

The CONTRACTOR shall submit the Quality Control Plan for review and acceptance by the ENGINEER and OWNER at least seven (7) days prior to the Pre-construction Meeting. The Quality Control Plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. If the CONTRACTOR fails to submit an acceptable Quality Control Plan with the time prescribed, construction shall not start unless an acceptable interim plan is submitted and approved. While the CONTRACTOR is operating an acceptable interim plan, the ENGINEER shall retain fund from progress payments until such time as the CONTRACTOR submits an acceptable final plan. Failure to comply with the above requirements within the time prescribed will be considered a condition endangering the performance of the Contract and may be considered grounds for termination of the Contract.

2.20.1 Weekly Summary Report

The CONTRACTOR shall also forward to OWNER and ENGINEER, as soon as practicable after the first day of each week, a summary report of the progress of the various parts of the WORK under the Contract stating the existing status, estimated time of completion, and cause of delay, if any. Together with the summary report, CONTRACTOR shall submit any necessary revisions to the original schedule for OWNER's review and approval.

2.20.2 Daily Quality Control Report

The Daily Quality Control Report (Appendix A) shall be submitted to the ENGINEER by 12:00 pm on the day following the day for which the activity is being reported. The preferred method of submittal is by e-mail. The OWNER or the ENGINEER reserves the right to stop construction if the CONTRACTOR's Daily Quality Control Report is overdue. Additional Dredging/Disposal Logs, if completed by CONTRACTOR, shall be attached to the Daily Quality Control Report.

2.20.3 Water Quality Monitoring by the Contractor

The CONTRACTOR shall establish and maintain quality control protection of the environment throughout the contract duration in accordance with requirements described in Section 3.

2.20.4 Dredging Work Plan

Prior to the commencement of the WORK, the CONTRACTOR shall submit to the ENGINEER and OWNER for review, a Dredging Work Plan to cover all specified operations. The Dredging Work Plan shall include, at a minimum the following:

a) The means and methods to be employed to accomplish construction access, dredging, disposal (upland location), and restoration
b) CONTRACTOR calculated quantities based on the BD Survey and design grades
c) Dredging methodology
d) Dredged material disposal route
e) Type and size of equipment used
f) Work sequence with type and capacity of equipment to be used
g) Survey Control Plan
h) Maintenance of Marine Traffic Plan (i.e., Access Control Plan)
i) Turbidity Control Plan
j) Quality Control Plan
k) Hurricane and Storm Preparation Plan

2.20.5 Project Schedule

The CONTRACTOR shall prepare a construction schedule, which shall be submitted to the ENGINEER at least seven (7) days prior to the Pre-construction Meeting. The project schedule shall consider any anticipated potential interruptions to the CONTRACTOR's operations including adverse weather, vessel traffic and communication requirements for coordination with the ENGINEER. The Project schedule shall show sequentially the stages of the WORK, including but not limited to the anticipated dates of the following:

a) Notice to Proceed
b) Mobilization
c) Commencement of dredging operations
d) Disposal site layout
e) Weekly report submissions
f) Demobilization

2.20.6 Pre-construction Documentation

The CONTRACTOR shall undertake all necessary field verification of the existing "as-built" construction and coordinate deviations from the Contract Documents in a timely manner. The ENGINEER shall be notified of any observed deviation. The CONTRACTOR is responsible for obtaining all photos, video, and cursory record documentation of pre-existing site conditions. Said

documentation shall be provided to the ENGINEER at least seven (7) days prior to Pre-construction Meeting date.

2.20.7 List of Subcontractors

The CONTRACTOR shall submit the pre-qualified list of subcontractors to the ENGINEER for review. The CONTRACTOR shall also submit a list of similar projects for each specialty Subcontractor along with the OWNER contact information for those projects which demonstrate experience required herein.

The CONTRACTOR shall submit a list of Subcontractors that are on site each day in the Daily Quality Control Report along with all Subcontractor's vehicle and personnel information. The CONTRACTOR shall also define scope completed by their specialty Subcontractor each day and include supporting documentation such as pictures in the Daily Quality Control Report.

2.20.8 Field Quality Control

2.20.8.1 Testing & Monitoring

The CONTRACTOR shall perform all required testing and monitoring specified in the Contract Documents. The CONTRACTOR shall perform the following activities and record and provide the following data:

a) Verify that testing/monitoring standards or procedures comply with contract requirements.
b) Verify that facilities, instruments, and testing/monitoring equipment are available and comply with testing standards.
c) Check testing/monitoring instrument calibration data against certified standards.
d) Verify that recording forms and testing/monitoring identification control number system, including all of the testing/monitoring documentation requirements, have been prepared.
e) Results of testing/monitoring, both passing and failing, shall be recorded, and reported for date taken. Testing/monitoring results shall be provided to ENGINEER and OWNER upon request.

2.21 Project Closeout

2.21.1 Substantial Completion

The WORK shall be sufficiently complete, in accordance with the Contract Documents, so that the AGENT can fully occupy and utilize the WORK or designated portion thereof for the use which it is intended, with all areas, parts, and systems operable as indicated in the Contract Documents.

When the entire WORK (or any portion thereof designated in writing by the AGENT) is ready for its intended use, CONTRACTOR shall notify the ENGINEER in writing that the entire WORK is substantially complete in order to request that the ENGINEER issue a Certificate of Substantial Completion (or Certificate of Partial Substantial completion). An inspection of the WORK (or designated portion) shall be conducted within a reasonable timeframe thereafter by the ENGINEER, AGENT, and CONTRACTOR in order to verify the status of completion.

Acceptance of WORK for Substantial Completion shall be determined by the ENGINEER, at which time if the WORK is deemed substantially complete, the ENGINEER shall prepare and issue a Certificate of Substantial Completion to the CONTRACTOR. Prior to requesting inspection for "Certification of Substantial Completion", the CONTRACTOR shall demonstrate 100% completion for the portion of WORK claimed is substantially complete which at a minimum shall include:

a) Supporting documentation be submitted as required and indicated for completion in these specifications and a statement verifying a summary of accounting changes to the contract sum.
b) In the event 100% completion cannot be verified, CONTRACTOR shall include a punch list of incomplete items, the value of incomplete construction and explanation of WORK that is not complete.
c) Procure and submit liens releases enabling the AGENT unrestricted use of the WORK and access to services and utilities.
d) Include occupancy permits, operating certificates, and similar releases.
e) Submit final survey drawings and electronic files, damage or settlement surveys, property surveys, or similar final record documentation as indicted.
f) Complete final cleanup requirements to work site, including at a minimum upland and surrounding structures.
g) Submit specific warranties, maintenance agreements, final certification correspondence, and any other pertinent documents.

If the WORK is determined incomplete by the ENGINEER and AGENT, the ENGINEER shall notify the CONTRACTOR in writing and develop a "punch list" of deficiencies which do not conform to the approved plans and technical specifications. Such list of deficiencies will be provided to the CONTRACTOR with the estimated date by which the deficiencies will be corrected. Upon completion of punch list items, CONTRACTOR shall notify the ENGINEER in writing that the site is ready for "pre-final" inspection. The ENGINEER may perform a pre-final inspection to verify that the WORK is complete. The CONTRACTOR shall ensure that all items identified as requiring completion have been addressed before requesting a final inspection.

2.21.2 Final Completion

Upon receiving written notice from the CONTRACTOR that the WORK is complete, the ENGINEER will observe and inspect the WORK within seven (7) days of receipt of the written notice from the CONTRACTOR and, if required, will notify the CONTRACTOR in writing of all particulars and discrepancies in which the observation reveals the WORK to be incomplete or defective. The CONTRACTOR shall immediately implement measures to remedy observed deficiencies.

2.21.3 Damages

2.21.3.1 Site Restoration and Damage

All areas disturbed during construction shall be restored to pre-construction conditions unless noted otherwise. Such restoration shall be in accordance with a Site Restoration Plan submitted for approval by the ENGINEER and AGENT. The Site Restoration Plan shall include, at a minimum, the plans, details, methods, materials, and schedule for the restoration. This work shall be accomplished at the CONTRACTOR's expense. Final payment to the CONTRACTOR shall not occur until the ENGINEER and the AGENT are satisfied with the CONTRACTOR's effort to restore landscape and any other damage caused by the CONTRACTOR or their subcontractors.

All grassed areas damaged by the CONTRACTOR shall be re-graded and restored with sod or, where approved by the AGENT, seeded and mulched. Restoration shall match existing grades and grass species unless otherwise directed.

Trees within or adjacent to the work limits shall be protected from damage by boxing or other suitable means. Any tree damaged by the CONTRACTOR shall be repaired or replaced in accordance with industry standards and to the satisfaction of the AGENT.

The CONTRACTOR shall bear the risk of injury, loss or damage to any and all parts of the WORK for whatever cause, whether arising from the execution or from the non-execution of the WORK (except that the AGENT may, in writing, upon written request from the CONTRACTOR, relieve the CONTRACTOR of the duty of maintaining and protecting certain portions of the WORK, as described in this paragraph, which have been completed in all respects in accordance with the requirements of the Contract). The CONTRACTOR shall rebuild, repair, or restore work and materials which have been damaged or destroyed from any cause(s) before Completion and Acceptance of the WORK and shall bear the expense thereof. The CONTRACTOR shall provide security/safety including, but not limited to, security guards, erection of temporary structures and temporary fencing as necessary to protect the WORK and materials from theft, vandalism, or damage.

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the CONTRACTOR. Areas used by the CONTRACTOR for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including topsoil, and seeding as necessary.

2.21.4 Final Clean Up

Construction debris, waste materials, packaging material, and the like shall be removed from the work site daily. Any dirt or mud that is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities that are salvageable shall be stored within the area described above or at the supplemental storage area. Stored material not in trailers, whether

new or salvaged, shall be neatly stacked when stored. Refer to Section 3 for solid waste and post construction clean-up.

The CONTRACTOR shall complete a final clean up once the project is complete. The cleanup shall include at a minimum removal of all the CONTRACTOR's equipment and materials. Any equipment or material that is waste and not intended to be reused shall be disposed of in a manner and at locations approved by the ENGINEER.

The CONTRACTOR will not be permitted to abandon any equipment or material in the disposal area for dredge materials, pipeline access areas, DMMA fill areas and any other areas adjacent to the work site unless otherwise approved by the ENGINEER in writing.

The CONTRACTOR shall restore the DMMA, and associated upland impacts, to their pre-project condition.

3 ENVIRONMENTAL PROTECTION

3.1 Scope

The CONTRACTOR shall take preventative measures to comply with the conditions in the environmental permits and protect the environment from pollution and damage as a result of construction operations associated with performing the WORK under this Contract. For this specification, environmental protection is defined as the retention of the environment in its natural state to the greatest possible extent during project construction and to restore its natural appearance to the pre-construction condition. Environmental protection requires consideration of air, water, and land and involves noise, solid waste-management as well as other pollutants.
The CONTRACTOR's work shall be performed in accordance with all restrictions and special conditions delineated in the regulatory permits and licenses for the project as contained in the Contract Documents and applicable regulations. Environmental pollution and damage are defined as the presence of spread chemical, physical, or biological elements or agents which:

a. Adversely affect human health or welfare
b. Unfavorably alter ecological balances of importance to human life
c. Affect other species of importance to man
d. Degrade the quality of the environment for aesthetic, cultural, and/or historical purposes

3.2 Quality Control

The CONTRACTOR shall establish and maintain quality control and environmental protection for all items set forth herein. The CONTRACTOR shall record on the Daily Quality Control Reports (Section 2.20.2) any problems complying with laws, regulations, ordinances, project permits, or other conditions of the Contract Documents, and document the corrective action taken. A copy of the Daily Quality Control Report template is attached to these technical specifications. The CONTRACTOR may use a different template with prior approval of the ENGINEER.

3.3 Permits

The CONTRACTOR shall familiarize himself and his personnel with the permits issued for this project (Appendix C & D) and comply with all requirements under the terms and conditions set forth therein. Assurance of compliance with all sections of the Contract by subcontractors will be the responsibility of the CONTRACTOR, including compliance with all environmental and permit requirements. The CONTRACTOR shall be responsible for any fines resulting from violations of construction conditions set forth in the environmental permits. The CONTRACTOR shall include all costs for preparation and submittal of required reporting within each relative bid item. It is the CONTRACTOR's responsibility to obtain all other relevant Federal, State, and local permits at no cost to the AGENT. The CONTRACTOR shall be responsible for any delays and costs resulting from non-compliance with said permits. CONTRACTOR is responsible for obtaining any and all

local permits, including payment of any application fees associated with the local permits including but not limited to Sarasota County building permits and USCG Notice to Mariners.

3.4 Noncompliance

The ENGINEER will notify the CONTRACTOR in writing of any observed noncompliance with applicable federal, state, or local laws and regulations, permits, and other elements of the CONTRACTOR's Environmental Protection Plan. The CONTRACTOR shall, after receipt of such notice, inform the ENGINEER of the proposed corrective action and take such action as may be approved. If the CONTRACTOR fails to comply promptly, the ENGINEER or AGENT may issue an order stopping all or part of the WORK until satisfactory corrective action has been taken. No time extensions will be granted, or costs or damages allowed, to the CONTRACTOR for any such suspension.

Monitoring of permit and/or regulation compliance by the ENGINEER is for the sole benefit of the AGENT and shall not relieve the CONTRACTOR of the responsibility of knowing and complying with applicable federal, state, and local laws and regulations concerning the protection of the environmental resources, nor does it relieve the CONTRACTOR of the responsibility of ensuring that compliance with all environmental permit requirements governing the WORK is satisfied. The CONTRACTOR shall immediately notify the ENGINEER of the occurrence of any environmental incident and document it in the Daily Quality Control Report.

3.5 Protection of Environmental Resources

The CONTRACTOR shall comply with all applicable federal, state, and local laws and regulations when executing the WORK. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this Contract shall be protected during the entire period of this Contract. The CONTRACTOR shall confine their activities to areas defined by the Contract Documents. Failure to meet the requirements of these technical specifications relative to environmental protection may result in work stoppages or termination. No part of the time lost due to any such work stoppages shall be made the subject of claims for extensions of time or for excess costs or damages by the CONTRACTOR. If the CONTRACTOR fails or refuses to promptly repair any damage caused by violation of provisions of these technical specifications relative to environmental protection, the AGENT may have the necessary work performed and charge the cost thereof to the CONTRACTOR. Environmental protection includes, but is not limited to, the descriptions included in the following sections.

3.5.1 Water Resources

3.5.1.1 General

The CONTRACTOR shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters. The CONTRACTOR shall conduct his operations in a manner to minimize impacts to water quality, and shall conform to applicable federal, state, and local regulatory criteria. Special management techniques as set out below and

in the environmental permits for the WORK shall be implemented to control impacts to water quality.

Water quality (turbidity) monitoring shall be performed by the CONTRACTOR, in accordance with the FDEP Standard Operating Procedure for field turbidity measurements and the requirements specified in the environmental permits for the WORK. The CONTRACTOR shall include all costs associated with water quality monitoring in his bid as part of Environmental Compliance. Turbidity shall not exceed 29 NTU above background levels per FDEP permit conditions.

3.5.1.2 Violations

The CONTRACTOR shall follow all requirements concerning water quality as provided by the environmental permits for the WORK. In the event of a turbidity violation, the CONTRACTOR shall comply with applicable permit conditions and take immediate corrective action, which may include stopping work, changing construction procedures or environmental protection methods, relocation of the dredge, or other action. Construction activities shall not resume until water quality has returned to within standards as specified by the FDEP permit.

3.5.1.3 Reporting

Water quality monitoring results shall be provided to the ENGINEER with the Daily Quality Control Report. The reports will be sent to the Florida Department of Environmental Protection by the ENGINEER, as required by the environmental permits. All sampling and analyses shall be in accordance with FDEP-approved field procedures and laboratory methods as specified in Chapter 62-160. A sample Turbidity Monitoring Report is attached in Appendix B. All reports shall contain the following information:

a) Permit number
b) Project name
c) Dates of sampling and analysis
d) Turbidity sampling results
e) Description of data collection methods (via a statement describing the methods use in collection, handling, storage, sample analysis, and date that the sampling meter was last calibrated)
f) Time of day profile was taken
g) Depth of sample
h) Depth of water body
i) Weather conditions at time of sampling
j) Tidal stage and direction of flow
k) Wind direction and velocity
l) Water temperature.
m) Map indicating sampling locations, dredging and discharge locations, and direction of tidal flow.
n) Statement and signature by the individual responsible for implementation of the sampling program attesting to the authenticity, precision, limits of detection, and accuracy of the data.

o) When samples cannot be collected, include an explanation in the report. If unable to collect sample due to severe weather conditions, include a copy of a weather report from a reliable, independent source, such as an online weather service.

3.5.1.4 Wastewaters

Washing, curing, and other wastewaters directly derived from construction activities shall not be allowed to enter surface water areas. The CONTRACTOR shall provide siltation fences, hay bales, and other means and materials to prevent the pollution of Phillippi Creek and surrounding streams, canals, lakes, ditches, rivers, and other water improvements including on-site retention areas from siltation from erosion, runoff, truck wash, truck cleanout, and other construction activities. Under no circumstances will material delivery trucks be cleaned out on public or private property without prior authorization. The CONTRACTOR is responsible for arranging for proper clean out facilities. The CONTRACTOR shall take sufficient precautions to prevent discharge of fuels, oils, bitumen, calcium chloride, and other harmful materials to the surface and ground water.

3.5.2 Land Resources

3.5.2.1 General

Before beginning any construction, and at the request of the CONTRACTOR, the ENGINEER shall identify land resources to be preserved within the CONTRACTOR's work area. The CONTRACTOR shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and landforms without authorization of the ENGINEER and or AGENT. No ropes, cables, or guys shall be fastened to any upland structures or vegetation for anchorage unless specifically authorized. Where authorization is provided, the CONTRACTOR shall provide effective protection to said upland structures or vegetation at all times as defined herein. Vegetation shall be protected and removed in accordance with applicable federal, state, and local standards and guidelines. CONTRACTOR shall exercise due caution to not damage existing native vegetation along the shoreline of access ways, dredge material management areas and staging areas. Any native vegetation damaged by CONTRACTOR beyond that authorized by AGENT during the course of the WORK shall be restored by CONTRACTOR at CONTRACTOR's expense.

3.5.2.2 Work Area Limits

Isolated areas (if any) within the work area, which are to be saved and protected, may also be identified by the ENGINEER and shall be marked or fenced by the CONTRACTOR. Monuments and markers shall be protected throughout construction operations. Where construction operations are to be conducted during darkness, the markers shall be visible. The CONTRACTOR shall convey to his personnel the purpose of marking and/or protection of all necessary objects. The CONTRACTOR’s field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas specified in the Construction Documents or otherwise approved by the ENGINEER. Temporary movement or relocation of the CONTRACTOR’s facilities shall be made only upon approval by the ENGINEER.

3.5.2.3 Erosion & Sedimentation Control

The CONTRACTOR shall select, implement, and maintain erosion and sedimentation control measures as required by federal, state, and local rules and regulations. Runoff from the construction site shall be controlled by construction of diversion ditches, benches, dikes, and/or berms to retard and divert runoff to protected drainage courses, and any measures required by area wide plans approved under paragraph 208 of the Clean Water Act. Dikes shall be constructed above the mean low water line and maintained in continuous repair to allow partial settling of fine materials from dredging, or as required by permit documents.

3.5.3 Fish & Wildlife Resources

3.5.3.1 General

The CONTRACTOR shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection will be listed in CONTRACTOR's Environmental Protection Plan prior to the beginning of construction operation. If a threatened or endangered species is harmed because of construction activities, the CONTRACTOR shall cease all work and notify the ENGINEER, AGENT, and other appropriate authorities in accordance with the permit conditions. The CONTRACTOR shall maintain a daily log of protected species observations (e.g., manatees, sea turtles, sawfish, shorebirds) and submit it with daily progress reports to AGENT. The log shall include date, time, location, species, behavior, and any incidents or interactions with dredging operations.

3.5.3.2 Manatee

The CONTRACTOR shall comply with the Standard Manatee Conditions for In-Water work (FWC, 2011) regarding construction procedures. These documents are attached to these technical specifications. The CONTRACTOR shall ensure that all personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations including vessels must be shutdown if a manatee(s) comes within 50 feet of the operations. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operations, or until 30 minutes elapses inf the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harasses into leaving. Work shall halt if a manatee, sea turtle, or sawfish is observed within 50 feet of operations

The CONTRACTOR shall post temporary manatee signs prior to and during all dredging activities, to be removed upon project completion. A sign measuring at least 3 feet by 4 feet reading “Caution: Manatee Area” shall be posted in a location prominently visible to water-related construction crews. If vessels are used, a second sign (at least 8.5 inches by 11 inches) shall be posted visible to the vessel operator, reading: “Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shut down if a manatee comes within 50 feet of the operation. Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-3922. The U.S. Fish and Wildlife Service

should also be contacted in Jacksonville (1-904-731-3336) for North Florida or in Vero Beach (1-772-562-3909) for South Florida and to FWC at ImperiledSpecies@myFWC.com”

3.5.3.3 Sea Turtle and Smalltooth Sawfish

The CONTRACTOR shall comply with all sea turtle and smalltooth sawfish protection measures outlined in the permits, Biological Opinions (BO), and “Sea Turtle and Smalltooth Sawfish Construction Conditions” (NMFS, 2006) regarding construction procedures, lighting, and dates of construction. These documents are attached to these technical specifications. In order to prevent sea turtles, smalltooth sawfish, shorebirds, and manatees from being adversely affected by the construction activities as described in these specifications, the CONTRACTOR is required to strictly adhere to the Florida Department of Environmental Protection, the Corps of Engineers permit, and Biological Opinion conditions which identify specific requirements for their protection, and are included with these Technical Specifications by reference.

In order to ensure that migratory birds, nesting shorebirds, and wintering birds are not adversely affected by the construction activities, CONTRACTOR shall comply with the Protection Conditions for Construction required by the Permits and these Specifications. Specific dates relevant to increased protection conditions begin 10 days prior to construction and end on September 1. CONTRACTOR shall cooperate fully with the AGENT and their monitors to comply with the Permits. AGENT is responsible for the shorebird monitoring and reporting as required by the Permits.

3.5.4 Seagrass Resources

3.5.4.1 Protected Species & Avoidance

Submerged natural resources (seagrasses) exist within and adjacent to the project area. The CONTRACTOR shall notify all personnel associated with the project of the presence of seagrasses and the need to avoid contact with seagrasses outside of the authorized project footprint as specified in the Contract Documents. CONTRACTOR shall take such precautions as necessary to avoid any impacts to seagrass beds and oyster beds per benthic survey (Appendix F). If a hydraulic dredge is used, the pipeline shall remain within existing navigation channels unless an alternate route is approved by AGENT. Turbidity barriers shall be placed around the seagrass beds to avoid any impacts. CONTRACTOR should refer to Permit conditions related to Submerged aquatic Vegetation (SAV) impacts and use of turbidity curtains.

3.5.4.2 Minimum Vessel Clearance

Vessels crossing seagrass beds shall have a minimum of twelve (12) inches of water below the hull or propellers, whichever is lower.

3.5.4.3 Documentation

Coordinates of all dredge anchor drop points, specifically anchor points outside the dredge template, shall be recorded in the dredge operational logs (using DGPS technology). Logs shall also include the dates, times, and circumstances of all work stoppages and equipment malfunctions. A copy of the dredge logs shall be with the Daily Quality Control Reports

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3.5.5 Air Resources

The CONTRACTOR shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes, and work operated or performed by the CONTRACTOR in accomplishing the WORK shall be in strict accordance with the applicable federal, state, and local air pollution, emission, and performance laws and standards.

3.5.6 Wetland Resources

3.5.6.1 General

The CONTRACTOR shall protect natural areas both inside and adjacent to the work area from erosion, siltation, scouring, and/or dewatering resulting from his operations. There shall be no storage of tools, materials (e.g., clearing debris, lumber, fill dirt) within wetlands, along the shoreline in the littoral zone, or elsewhere within waters of the state except as specified in the Contract Documents. Turbidity/erosion controls shall be installed prior to any clearing, excavation, or placement of fill material and shall be maintained in an effective condition at all locations until construction is completed and disturbed areas are stabilized. Appropriate erosion control barriers shall be placed at the edge of fill slopes adjacent to wetlands to prevent turbid runoff and erosion.

3.5.6.2 Shoreline Vegetation

Mangroves are known to exist along portions of the Phillippi Creek shoreline. Trimming, alteration, or removal of mangroves is strictly prohibited as defined in the 1996 Mangrove Trimming and Preservation Act. Unauthorized impacts to mangroves due to construction activities will require mitigation and will result in enforcement action. The CONTRACTOR may be held responsible for any mangroves harmed or destroyed due to executing the WORK. Should penalties be levied and/or mitigation be required as a result of CONTRACTOR actions, all cost will be borne by the CONTRACTOR at no cost to the AGENT.

3.5.7 Historical, Archaeological, and Cultural Resources

3.5.7.1 Inadvertent Discoveries

If, during construction activities, the CONTRACTOR observes items that may have historic or archeological value, such observations shall be reported immediately to the ENGINEER and AGENT so that the appropriate authorities may be notified, and a determination made as to their significance and what, if any, special disposition of the finds should be made. The CONTRACTOR shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources.

3.5.7.2 Claims for Downtime due to Inadvertent Discoveries

Upon discovery and subsequent reporting of a possible inadvertent discovery of historical, archaeological, or cultural resources, the CONTRACTOR shall seek to continue the work well away from, or otherwise protectively avoiding, the area of interest, or in some other manner that strives to continue productive activities in keeping with the Contract. Should an inadvertent discovery be of the nature that substantial impact(s) to the work schedule are evident; such delays

shall be coordinated with the ENGINEER and AGENT. Contract adjustments resulting from compliance with this paragraph shall be determined in accordance with Section 1.12.

3.5.8 Sound Intrusions

The CONTRACTOR shall keep construction activities under surveillance, management, and control to minimize damage to the environment by noise.

3.5.9 Oyster Resources

An oyster bed is located adjacent to the shoreline access point for the DMMA. The CONTRACTOR shall implement Best Management Practices (BMPs) to minimize impacts to this resource while conducting construction, dredging, and material handling operations. The CONTRACTOR shall not impact resources outside of the authorized project footprint. BMPs shall include, but not be limited to:

- Restricting vessel traffic, barge spuds, and equipment staging to the designated access corridor identified on the Drawings
- Installing and maintaining turbidity control devices as specified in these specifications and as required by the permits.
- Conducting fueling, lubrication, and material transfer operations in a manner that prevents spills or discharges into the waterway.
- Limiting propeller wash, scouring, and other physical disturbance within the oyster bed area to the maximum extent practicable.
- Monitoring turbidity and water quality during construction in accordance with Section 3.11.

Any unauthorized damage to oyster resources attributable to the CONTRACTOR's operations shall be remediated at the CONTRACTOR's expense to the satisfaction of the permitting agencies, OWNER, and AGENT.

3.6 Post-Construction Cleanup

The CONTRACTOR shall clean up any area(s) used for construction to the satisfaction of the ENGINEER and AGENT as specified in Section 2.10.

3.7 Hazardous Materials

3.7.1 Spills & Containment

The CONTRACTOR shall ensure that all hazardous material spills are immediately reported to the proper authorities, the ENGINEER, and the AGENT. All hazardous material spills shall be immediately cleaned up in accordance with the most recent version of the U.S. Army Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1, or latest version and any other applicable laws or regulations, and the Spill Containment Plan.

3.7.2 Storage of Lubricants

All lubricants and other potential liquid pollutants shall be stored in sealed, non-corrosive containers. Individual containers shall be stored in metal pans with borders banded up and welded at the corners right below the bibb. Pans shall be deep enough to prevent contamination of the surrounding area. Pans shall be kept clean of all spillage or leakage.

3.7.3 Disposal of Chemical Waste

Chemical waste shall be stored in corrosion resistant containers, removed from the work area, and disposed of in accordance with applicable federal, state, and local rules and regulations. The CONTRACTOR shall perform all maintenance of equipment, including but not limited to refueling, filter changes, and replacement of hydraulic lines in a manner so as not to contaminate soils, ground or surface waters, or any other natural resources.

3.7.4 Disposal of Solid Waste

Solid wastes (including clearing debris) shall be placed in containers and emptied on a regular schedule to avoid overflow conditions. All handling and disposal shall be conducted to prevent contamination and in accordance with applicable federal, state, and local requirements. No steel, cables, wire, pipe, drums, or any other debris shall be permitted to be disposed overboard into surrounding water bodies. Disposal of solid wastes or debris in Phillippi Creek is a violation of State and Federal laws. If such debris is found, the debris shall be removed by the CONTRACTOR at their own cost, or the cost of removal will be deducted from the CONTRACTOR's final payment.

3.7.5 Disposal of Discarded Materials

Discarded materials other than those which can be included in the solid waste category shall be handled by the CONTRACTOR in the same manner as solid waste, or as directed by the ENGINEER or AGENT.

3.8 Training of Contractor Personnel

The CONTRACTOR shall train all his personnel and subcontractors in all phases of environmental protection. All personnel and subcontractors will be familiar with the permit requirements, specifically the protection of environmental resources. The training shall include methods of detecting pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to ensure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment, and shall be thoroughly knowledgeable of federal, state, and local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the CONTRACTOR, with Quality Control personnel identified therein.

3.9 Environmental Protection Plan

The CONTRACTOR shall create and submit an Environmental Protection Plan at least seven (7) days prior to the scheduled Pre-construction Meeting to the ENGINEER that pertains to this project. The ENGINEER may, at his discretion, consider an interim plan for the first thirty (30) days of operations based on the anticipated construction schedule. However, the CONTRACTOR shall furnish an acceptable final plan no later than thirty (30) days after receipt of Notice to Proceed. Acceptance of plan shall not relieve the CONTRACTOR of his responsibility for adequate control of pollution and environmental protection measures. Acceptance of the plan is conditional and predicated on satisfactory performance during construction. The ENGINEER reserves the right to require the CONTRACTOR to make changes to the Environmental Protection Plan or operations if the ENGINEER determines that environmental protection requirements are not being met. No physical work at the site shall begin prior to acceptance of the Environmental Protection Plan or an interim plan covering the work to be performed. The Environmental Protection Plan shall include, but not be limited to, the following:

a. Methods for protection of features and resources to be preserved within authorized work areas. The CONTRACTOR shall prepare a listing of methods to protect resources needing protection including, but not limited to, submerged natural resources, mangroves trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological, and cultural resources).
b. Methods for the protection of species identified as state and/or federally protected requiring specific attention.
c. Procedures to be implemented to provide the required environmental protection (e.g., turbidity, marine resources) and to comply with the applicable laws and regulations. The CONTRACTOR shall provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedure set out in accordance with the Environmental Protection Plan.
d. Drawings showing locations of any proposed temporary and permanent excavations or embankments for haul roads, stream crossing, material storage areas, structures, sanitary facilities, dewatering areas, and stockpiles of excess or spoil materials.
e. Spill Containment Plan for hazardous materials as specified in Section 3.7. The CONTRACTOR shall specify all potentially hazardous substances to be used on the job site and his intended actions to prevent accidental or intentional introduction of such materials into the air, ground, water, wetlands, or drainage areas. The plan shall specify the CONTRACTOR's provisions to be taken to meet federal, state, and local laws and regulations regarding labeling, storage, removal, transport, and disposal of potentially hazardous substances.
f. Dredging Work Plan showing the proposed activity in each portion of the project area, which identifies the areas of limited or non-use. The Dredging Work Plan should include measures for marking the limits of use areas.
g. A statement identifying the CONTRACTOR's personnel who shall be responsible for implementation of the Environmental Protection Plan. The CONTRACTOR's appointed

personnel shall report directly to the CONTRACTOR's top management and shall have the authority to act for the CONTRACTOR in all environmental protection matters.

h. A signed letter acknowledging the CONTRACTOR has a copy of all environmental permits and licenses applicable to the project and understands the conditions specified therein shall be submitted to the ENGINEER at least seven (7) days prior to the pre-construction meeting.

i. Environmental monitoring protocols for the job site including, but not limited to, water, land, fish and wildlife, seagrass, air, wetland, historical, archaeological, and cultural resources, and noise.

3.10 Temporary Turbidity Control Systems

Floating turbidity curtains are mandatory for all dredging. Temporary geotextile containment systems (GCSs) may be used at the CONTRACTOR's discretion as a supplementary measure for turbidity reduction, subject to AGENT approval. If a hydraulic dredge is used, the use of GCSs may be considered for site management and turbidity reduction. This is due to the strict turbidity requirements under the water quality standards presented in the FDEP permit. If turbidity levels are exceeded, construction must cease in accordance with the state permit until conditions return to compliance.

Prior to the initiation of any work, CONTRACTOR shall install floating turbidity barriers with weighted skirts that extend within 1-foot of the creek bottom around all work areas in or adjacent to surface waters. CONTRACTOR shall conduct daily inspections to the geotextile material to ensure containment is being met and to reduce the possibility of increasing turbidity over the background levels. The GCSs can also be used as a site management tool. After the containment systems are full, it can be used as a temporary erosion control device to manage spoil material. Positioning the GCSs must be approved in advance by AGENT. If turbidity exceeds thresholds, dredging shall cease until compliance is restored, with downtime factored into unit prices.

The CONTRACTOR shall supply a plan with the means and methods of installing, maintaining, and removing the GCSs or other device per TS 3.1.6. The plan may include, but not limited to, manufacturer, size, flux or anticipated production rate, and placement location. This plan shall be presented as part of the bid response and upon selection shall be presented as part of the Operations Plan in preparation for the required pre-construction meeting with the AGENT. CONTRACTOR is responsible for removing the GCSs or any other temporary device used by the CONTRACTOR prior to final grading of the spoil material. Post-construction clean-up is the responsibility of the CONTRACTOR. CONTRACTOR shall remove turbidity barriers upon stabilization of the work area.

The CONTRACTOR shall clean out and properly dispose of any debris that may accumulate in all turbidity control devices, including turbidity curtains, barriers, and containment systems, on a weekly basis and after every rain event. Disposal of collected material shall be in accordance with applicable permit requirements and at no additional cost to the OWNER

3.11 Turbidity Monitoring and Reporting

The CONTRACTOR shall furnish all labor, materials, and equipment to conduct turbidity monitoring using a calibrated turbidity meter meeting FDEP permit specifications. Samples shall be analyzed within 30 minutes of collection using equipment that avoids contamination from water at other depths. Daily inspections of turbidity curtains shall ensure containment and compliance with water quality standards (<29 NTU above background). The CONTRACTOR shall submit weekly turbidity reports to AGENT and immediately notify the AGENT of any exceedances, halting dredging until compliance is restored. Downtime due to exceedances shall be factored into unit prices. A copy of the operating instructions and calibration standards for turbidity equipment shall be provided to the AGENT upon request.

3.12 Environmental Monitoring

The CONTRACTOR shall implement an environmental monitoring program to ensure compliance with FDEP water quality standards and permit conditions for sediment and return water during dredging operations.

3.12.1 Dredged Sediment Testing

Prior to disposal, the CONTRACTOR shall test dredged sediment to confirm compliance with FDEP standards (Chapter 62-777, F.A.C.) for contaminants (e.g., heavy metals, PAHs, PCBs). Samples shall be collected from representative locations (minimum one sample per 1,000 cubic yards or as directed by AGENT) and analyzed by a certified laboratory. Test results shall be submitted to AGENT and FDEP for approval before disposal. Sediment exceeding FDEP thresholds shall be disposed of at a permitted upland facility approved by AGENT.

3.12.2 Return Water Monitoring

If return water is discharged to surface waters or stormwater systems, the CONTRACTOR shall monitor turbidity daily and conduct weekly chemical analysis for contaminants identified in prior sediment testing. Chemical analysis shall comply with FDEP surface water quality standards (Chapter 62-302, F.A.C.). Monitoring data shall be recorded daily and submitted to AGENT in weekly reports, including laboratory results and any corrective actions taken.

3.12.3 Reporting

The CONTRACTOR shall submit environmental monitoring reports to AGENT via email in PDF format, including sediment and return water test results, turbidity readings, and compliance status. Non-compliance with water quality standards shall be reported to AGENT and FDEP within 24 hours, with a corrective action plan to restore compliance. Failure to comply with environmental

monitoring requirements may result in suspension of work or withholding of payments until compliance is achieved.