

**BID PACKAGE
FOR
MISSISSIPPI RIVER LONG DISTANCE SEDIMENT
PIPELINE (BA-43 EB)
and
BAYOU DUPONT MARSH AND RIDGE CREATION
(BA-48)
JEFFERSON & PLAQUEMINES PARISHES, LOUISIANA**



**STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY**

MARCH 2013

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SCHEDULE OF BID ITEMS – BASE BID
MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE (BA-43 EB)
AND BAYOU DUPONT MARSH & RIDGE CREATION PROJECT (BA-48)

Mail To:
 Office of State Purchasing
 Division of Administration
 State of Louisiana
 Attn: Hilary Stephenson
 P.O. Box 94095
 Baton Rouge, LA 70804-9095

ITEM No.	ITEM	UNIT	QUANTITY ¹	UNIT PRICE ²		EXTENDED PRICE ²
				USING WORDS	USING NUMBERS	USING NUMBERS
1.	Mobilization and Demobilization ³	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
2.	Construction Surveys	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
3.	Earthen Containment Dikes	Linear Foot	33,720	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
4.	Earthen Ridge	Linear Foot	11,117	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
5.	Excavation, Flotation Access	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
6.	Hydraulic Dredging- Corridor and Marsh Creation (Fill Volume in Place)	Cubic Yard	4,725,153	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
7.	Permanent Waterway Crossings (Bridge and Culverts over existing canals)	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
8.	Bayou Dupont Weir Reconstruction	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
9.	Settlement Plates	Each	21	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
TOTAL AMOUNT OF BASE BID:				_____ Dollars	_____ Cents	

SCHEDULE OF BID ITEMS – ADDITIVE / DEDUCTIVE ALTERNATE BID #1
MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE (BA-43 EB)
AND BAYOU DUPONT MARSH & RIDGE CREATION PROJECT (BA-48)

Mail To:
 Office of State Purchasing
 Division of Administration
 State of Louisiana
 Attn: Hilary Stephenson
 P.O. Box 94095
 Baton Rouge, LA 70804-9095

ITEM No.	ITEM	UNIT	QUANTITY ¹	UNIT PRICE ²		EXTENDED PRICE ²
				USING WORDS	USING NUMBERS	USING NUMBERS
10 (A).	Mobilization and Demobilization ³	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
10 (B).	Mobilization and Demobilization ³	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
11.	Construction Surveys	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
12.	Earthen Containment Dikes	Linear Foot	-8,144	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
13.	Earthen Containment Dikes	Linear Foot	13,037	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
14 (A).	Hydraulic Dredging- Marsh Creation (Fill Volume in Place)	Cubic Yard	324,191	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
14 (B).	Hydraulic Dredging- Marsh Creation (Fill Volume in Place)	Cubic Yard	324,191	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
TOTAL AMOUNT OF ADDITIVE / DEDUCTIVE ALTERNATE BID #1:				_____ Dollars	_____ Cents	

OPTIONS: Two borrow site locations may be used for the alternate.
 (A) Hydraulic dredging and marsh fill from Alliance Anchorage Borrow Site
 (B) Hydraulic dredging and marsh fill from Wills Point Anchorage Site

SCHEDULE OF BID ITEMS – ADDITIVE ALTERNATE BID #2
MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE (BA-43 EB)
AND BAYOU DUPONT MARSH & RIDGE CREATION PROJECT (BA-48)

Mail To:
 Office of State Purchasing
 Division of Administration
 State of Louisiana
 Attn: Hilary Stephenson
 P.O. Box 94095
 Baton Rouge, LA 70804-9095

ITEM No.	ITEM	UNIT	QUANTITY ¹	UNIT PRICE ²		EXTENDED PRICE ²
				USING WORDS	USING NUMBERS	USING NUMBERS
15 (A).	Mobilization and Demobilization ³	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
15 (B).	Mobilization and Demobilization ³	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
16.	Construction Surveys	Lump Sum	1	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
17 (A).	Hydraulic Dredging- Marsh Creation (Fill Volume in Place)	Cubic Yard	359,280	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
17 (B).	Hydraulic Dredging- Marsh Creation (Fill Volume in Place)	Cubic Yard	359,280	_____ Dollars _____ Cents	\$ _____ . _____	\$ _____ . _____
TOTAL AMOUNT OF ADDITIVE ALTERNATE BID #2:				_____ Dollars	_____ Cents	

OPTIONS: Two borrow site locations may be used for the additive alternate.
 (A) Hydraulic dredging and marsh fill from Alliance Anchorage Borrow Site
 (B) Hydraulic dredging and marsh fill from Wills Point Anchorage Site

- Where the quantity of Work with respect to any item is covered by a unit price, such quantities are estimated quantities to be used when comparing bids and the right is reserved by the Owner to increase/decrease such quantities as may be necessary to complete the Work and/or remain within the funding limits. In the event of material underruns/overruns, the unit costs will be used to determine payment to the Contractor.
- Items must be completed by the bidder. The completed sheet must be attached to the bid submitted to the Office of State Purchasing in order for the bid to be considered. The low Bidder will be determined on the basis of the Base Bid and any Alternates accepted.
- Mobilization and Demobilization shall include all appropriate costs associated with constructing all features listed in the Specifications and/or shown in the Plans. In the event that Work is not performed from a borrow area, the Mobilization and Demobilization item for that site will be deleted from the payment to the Contractor.

PART I GENERAL PROVISIONS

GP-1 DEFINITION OF TERMS

Whenever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to the singular or plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs and the titles of other documents or forms.

Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

- 1.1 Acceptance: A written approval from the Engineer which certifies that specific items of work in the Contract have been completed and/or obligations have been fulfilled by the Contractor.
- 1.2 Addenda: Those written or graphic documents which are issued prior to opening of Bids in accordance with the Bidding Requirements and clarify or change the bidding requirements or the proposed Contract Documents.
- 1.3 Agreement: The written and signed agreement between the Owner and Contractor specifying the Work to be performed and includes the Contract Documents, all addenda pertaining to the Bid, Notice of Award, Bonds, Plans, General Provisions, Special Provisions, and Technical Specifications.
- 1.4 Application of Payment: That form which is used by the Contractor to request partial and final payment and is deemed acceptable to the Owner. It shall be accompanied by any supporting documentation required by the Contract Documents.
- 1.5 A.S.T.M.: American Society for Testing and Materials.
- 1.6 Bid: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.
- 1.7 Bidder: The person, association of persons, firm, or corporation submitting a proposal for the Work.
- 1.8 Bidding Requirements: The Advertisement or Invitation to Bid, Instruction to Bidders, Form of Bid Security, if any, and Bid Form with any supplements.
- 1.9 Change Order: A written order which is submitted to the Contractor, signed by the Owner, and authorizes an addition, deletion, or revision in the Work, or an adjustment in the contract price or the contract time issued after the effective date of the Agreement.

- 1.10 Claim: A written demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both or other relief with respect to the terms of the Contract.
- 1.11 Contract: The written Agreement between the Owner and the Contractor which defines the work to be completed and shall be understood to include the Plans, Specifications, Information for Bidders, Agreement, Advertisement For Bidders, Affidavit, Bid Form, Bid Bond, Contract Bond, Notice of Award, Notice to Proceed, and Change Orders, and Claims.
- 1.12 Contract Bond: The approved form of security furnished by the Contractor and Surety for the faithful performance of the Work, and the payment for all labor, materials, and/or obligations incurred by the Contractor in the prosecution thereof.
- 1.13 Contract Documents: The Agreement, all addenda which pertains to the Contract Documents, Bid Documents and specified Attachments accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award, Contractor's Bid when attached as an exhibit to the Agreement, the Bonds (Bid and Performance/Payment), General Provisions, Special Provisions, Technical Specifications, Plans, and all Field or Change Orders issued after the execution of the Agreement. Shop Drawings and other submittals by the Contractor are not Contract Documents.
- 1.14 Contract Price: The moneys payable by the Owner to the Contractor for the Work in accordance with the Contract Documents as stated in the Agreement.
- 1.15 Contract Time: The number of calendar days specified in the Agreement for completion of the Work, together with any extensions authorized through change orders.
- 1.16 Contractor: The person, association of persons, firm, or corporation entering into the duly awarded Contract.
- 1.17 Contracting Agency: The Louisiana Department of Natural Resources (LDNR) acting through the Division of Administration.
- 1.18 Day: When any period of time is referred to in the Contract Documents using days, it will be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday, Sunday, or a legal holiday, that day will be omitted from the computation. A calendar day is measured as twenty-four (24) hour period starting at midnight and ending the following midnight.
- 1.19 Design Report: A written report by the Engineer which provides the design methodology for the Work.
- 1.20 Effective Date of the Agreement: The date indicated in the Agreement on which it becomes effective.
- 1.21 Engineer: The Louisiana Department of Natural Resources, Coastal Engineering Division, or its designee.

- 1.22 Equipment: All machinery, implements, and power-tools, in conjunction with the necessary supplies for the operation, upkeep, maintenance, and all other tools and apparatuses necessary for the proper construction and acceptable completion of the Work.
- 1.23 Extension of Contract: Any extension of time for completion of Work beyond the Contract Time which is granted by the Owner, recommended by the Engineer and approved by the Office of State Purchasing in the form of a Change Order.
- 1.24 Federal Sponsor: The federal agency which has been tasked to manage the implementation of the project.
- 1.25 Field Order: A written order issued by the Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or Contract Time.
- 1.26 Resident Project Representative: An authorized representative of the Engineer who is responsible to inspect the Work and materials furnished by the Contractor.
- 1.27 Laboratory: The firm, company, or corporation which is used to test materials and is approved for use by the Engineer.
- 1.28 Laws and Regulations; Laws or Regulations: Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- 1.29 Materials: Any substance used in the Work to build structures, but does not include material used in false work or other temporary structures not incorporated in the Work.
- 1.30 Milestone: A principal event specified in the Contract Documents relating to an intermediated completion date or time prior to the Contract Times.
- 1.31 Notice of Award: A written notice to the successful Bidder stating that the Bid has been accepted by the Owner and that the successful Bidder is required to execute the Contract and furnish the Contract Bond.
- 1.32 Notice to Proceed: The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.
- 1.33 Owner: The Owner is the State of Louisiana (State) which acts through the Contracting Agency.
- 1.34 Plans: That part of the Contract Documents prepared or approved by the Engineer which graphically shows the scope, intent, and character of the Work to be completed by the Contractor.
- 1.35 Project Site: The location where the Work is to be performed as stated in the Agreement.
- 1.36 Right-of-way: That entire area reserved for constructing, maintaining, and protecting the proposed improvement, structures, and appurtenances of the Work.

- 1.37 Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portions of the Work will be judged.
- 1.38 Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work to be performed.
- 1.39 Specifications: That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the work to be performed and certain administrative details applicable thereto.
- 1.40 State: The State of Louisiana.
- 1.41 Structures: Bridges, plugs, weirs, bulkheads, berms, dams, levees, and other miscellaneous construction encountered during the Work and not otherwise classified herein.
- 1.42 Subcontractor: Any person, association of persons, firm, or corporation who contracts with the Contractor to perform any part of the project covered by the Contract.
- 1.43 Submittals: Certificates, samples, shop drawings, and all other project data which are submitted to the Engineer in order to verify that the correct products will be installed on the project.
- 1.44 Successful Bidder: The lowest responsible Bidder whom the Owner makes an award.
- 1.45 Special Provisions: That part of the Contract Documents which amends or supplements these General Provisions.
- 1.46 Surety: The corporate body, licensed to do business in Louisiana, bound with and for the Contractor's primary liability, and engages to be responsible for payment of all obligations pertaining to acceptable performance of the Work contracted.
- 1.47 Temporary Structures: Any non-permanent structure required while engaged in the prosecution of the Contract.
- 1.48 Work: All work specified herein or indicated on the Plans.
- 1.49 Work Plan: A written plan by the Contractor that details how the Work will be provided including layout drawings, projected schedule (Initial Progress Schedule), and a list of labor hours, materials, and equipment.

GP-2 BID REQUIREMENTS

The Contract and Bonds which govern the Work shall be performed in accordance with the Plans, Specifications, and the Louisiana Standard Specifications for Roads and Bridges, 2006 edition. The Bidder understands that all quantities for performing the Work have been estimated by the Engineer, and that the Bid shall be the sum of the quantities multiplied by their respective unit rates. The Contract shall be awarded by the Owner through a comparison of all bids. It is the responsibility of each Bidder before submitting a Bid to:

- 2.1. Examine the Bidding Documents including the Plans and Specifications and any Addenda or related data identified in the Bidding Documents;
- 2.2. Visit the Project Site to become familiar with the local conditions if they are believed to affect cost, progress, or the completion of the Work;
- 2.3. Become familiar and satisfied with all federal, state, and local Laws and Regulations that may affect cost, progress, or the completion of the Work;
- 2.4. Study and correlate all information known to the Bidder including observations obtained from Bidder's visits, if any, to the Project Site, with the Bidding Documents;
- 2.5. Submit a written notice to the Engineer within three (3) days regarding any conflicts, errors, ambiguities, or discrepancies discovered in the Bidding Documents and confirm that the written resolution thereof by the Engineer is acceptable to the Bidder; and
- 2.6. Determine that the Bidding Documents are generally sufficient to convey an understanding of all terms and conditions for completing the required Work.

The submission of a Bid will constitute an incontrovertible representation that the Bidder has complied with every requirement of these Specifications. The Bidder shall comply with all other requirements specified in the Notice to Bidders.

GP-3 AVAILABILITY OF PLANS AND SPECIFICATIONS

One (1) set of Plans and Specifications shall be furnished to each Bidder. Three (3) sets of the Plans and Specifications shall be furnished to the Contractor upon award of the Contract. Additional sets may be furnished to the Contractor upon request from the Restoration Engineering Division of the Coastal Protection and Restoration Authority, 450 Laurel Street, 11th Floor, Baton Rouge, Louisiana 70801.

GP-4 LAWS, REGULATIONS, STANDARDS, SPECIFICATIONS, AND CODES

Bidders are required to become familiar and remain in compliance with all Federal, State, and local laws, ordinances, and regulations which may affect all employees and execution of the Work. The filing of a bid will be presumptive evidence that the Bidder has complied with this requirement. The Owner will not be responsible for any inaccurate interpretations or conclusions drawn by the Contractor from information and documentation provided by the Owner.

References to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws and Regulations, whether such reference be specific or by implication, may not be in effect at the time of opening the Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents. No provision of any such standard, specification, manual, or code, or any instruction of a supplier shall be effective to change the duties or responsibilities of the Owner or Engineer, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Bid Documents. No such provision shall be effective to assign to the Owner or Engineer, or any of their consultants, agents, or employees any duty or authority to supervise or direct the performance of the Contractor's obligations or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

The Contractor shall indemnify the Owner and its representatives against any claim or liability arising from all violations of any laws, bylaws, ordinances, codes, regulations, orders, or decrees. The obligations imposed by these specifications are in addition to and are not to be construed in any way as a limitation of any rights available to the Engineer or Owner which are otherwise imposed by any laws or regulations or other provisions within the Contract Documents.

The Contractor shall abide by laws set forth in the Davis-Bacon Act of 1931 which states that all laborers and mechanics employed by recipients, the recipient's contractors, or subcontractors on this project shall be paid wages at rates no less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of Title 40 United States Code. Additionally, with respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Number 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and The Copeland Act of Title 40 (40 U.S.C. § 3145). Prevailing Wage Determination Schedules, as determined by the United States Department of Labor, are provided in the Appendix. Prevailing Wage Determination Schedules are subject to modification by the United States Department of Labor. The Contractor is responsible for utilizing the most current Prevailing Wage Determination Schedule. These documents can be downloaded from the following link: <http://www.wdol.gov/dba.aspx#3>. Modifications to Prevailing Wage Determination Schedules shall be effective if received (or posted) no less than 10 days prior to bid opening.

GP-5 PRE-BID CONFERENCE AND SITE VISIT

A Pre-Bid conference will be held at the location and on the date provided in the Bid Solicitation. A site visit may also be held at the Project Site as specified in the Bid Solicitation or at the Pre-Bid conference. Bidders will be required to furnish their own transportation to the Project Site. Representatives of the Owner and Engineer will attend the Pre-Bid conference and site visit, if held, to discuss the Work. **Bidders are required to attend the Pre-Bid conference and site visit, if held.** Failure to attend will result in a null or void Bid.

All questions shall be in writing and faxed to the Office of State Purchasing (OSP) after the Pre-Bid conference and by the due date announced at the Pre-Bid conference. No additional questions shall be received after the specified pre-bid conference submittal deadline. Oral statements will not be binding or legally effective. The Office of State Purchasing will submit addenda in response to all questions arising at the Pre-Bid Conference and site visit to all prospective Bidders on record. All prospective Bidders on record may contact the Office of State Purchasing for any additional information.

GP-6 NOTICE OF AWARD

The Owner shall provide written notice to the Successful Bidder stating that the Owner will sign and deliver the Agreement upon compliance with the conditions enumerated therein and within the time specified.

GP-7 NOTICE TO PROCEED AND CONTRACT TIME

The Contractor shall start the Work and begin the Contract Time on the dates provided in the Notice to Proceed. The Work shall be conducted using sufficient labor, materials, and equipment as necessary to ensure completion within the Contract Time. The Contract Time for completion of the Base Bid for the Work is provided in Special Provisions, unless an extension is granted to the Contract Time as specified in GP-44.

GP-8 WORK PLAN

The Contractor shall develop a written Work Plan which accounts for all of the construction activities required by the Contract Documents. The Work Plan shall include a list of the individual construction tasks to be completed and the estimated dates for beginning and completing the tasks. It shall also include all other items which are applicable to completing the Work such as, but not limited to, the following:

- 8.1 Typical report form for the Bi-Weekly Progress Meeting;
- 8.2 Typical form for Daily Progress Report;
- 8.3 Hurricane and Severe Storm Plan;
- 8.4 Site-specific Health and Safety Plan;
- 8.5 The delivery method and source(s) of all construction materials (company or producer name, mailing and physical address, phone number, and name of contact person).
- 8.6 The personnel, material, subcontractors, fabricators, suppliers, types of equipment, and equipment staging areas the Contractor proposes to use for construction;
- 8.7 Shop drawings, test results, and sample submittals;
- 8.8 Survey layout and stakeout;
- 8.9 All supplemental items specified in Special Provisions.

The Work Plan shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in Special Provisions. The Engineer shall review the Work Plan and have the Contractor make any necessary revisions prior to acceptance of the plan. **No payment for mobilization will be made until the Work Plan has been accepted by the Engineer.**

GP-9 PROGRESS SCHEDULE

The Contractor shall develop a written Progress Schedule which provides for an orderly progression of the Work, submittals, tests, and deliveries in order to complete the Work within the specified Milestones and Contract Time. All of the items listed in the Work Plan shall be integrated into the Progress Schedule. The format of the schedule shall be composed using Microsoft Project®, or any other software deemed acceptable by the Engineer. It shall be updated weekly by the Contractor, at a minimum. The Progress Schedule shall also include, but not be limited to the following:

- 9.1 All of the elements in the Work Plan, including updates;
- 9.2 A work order issued from Louisiana One Call ordering all their subscribers in the project area to mark their utilities;
- 9.3 A telephone log verifying that all property owners and utilities have been contacted. This log should list the time, date, and names of the personnel representing the property owners, utilities, and Contractor;

The following table defines the monthly anticipated adverse weather days that are expected to occur during the Contract Time and will constitute the baseline monthly weather time for evaluations. The schedule is based upon National Oceanic and Atmospheric Administration (NOAA) or similar data for the regional geographic area.

Monthly Anticipated Adverse Weather Calendar Days											
Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5	5	4	4	4	5	7	7	5	3	3	4

The Progress schedule must reflect these anticipated adverse weather delays on all weather dependent activities. Adverse weather days must prevent Work for fifty percent (50%) or more of the work day and delay work critical to the timely completion of the project. The number of actual adverse weather days shall be calculated chronologically from the first to the last day of each month.

The Progress Schedule shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in Special Provisions. The Engineer shall perform a review and have the Contractor make any necessary revisions prior to acceptance of the schedule. Acceptance will not impose responsibility on the Owner or Engineer for the sequencing, scheduling, or progression of the Work. The Contractor is fully responsible for progression of the Work in order to maintain the compliance with the Progress Schedule.

GP-10 DAILY PROGRESS REPORTS

The Contractor shall record the following daily information on Daily Progress Reports:

- 10.1 Date and signature of the author of the report;
- 10.2 Dollar amount of all bid items that are fabricated, installed, backfilled, pumped, constructed, damaged, replaced, etc. The amount of material shall be expressed in the units stated in the bid;
- 10.3 Field notes of all surveys;
- 10.4 Notes on all inspections;
- 10.5 Details of Health and Safety meetings;
- 10.6 A brief description of any Change Orders, Field Orders, Claims, Clarifications, or Amendments;
- 10.7 Condition of all navigation aides (I.E., warning signs, lighted marker buoys) and any repairs performed on them;
- 10.8 Weather conditions (adverse weather day, wind speed and direction, temperature, wave height, precipitation, etc.);
- 10.9 The amount of time lost to severe weather or personnel injury, etc;
- 10.10 Notes regarding compliance with the Progress Schedule;
- 10.11 Visitor log (Instructions for format will be furnished by the Field Engineer).

The daily progress reports shall be submitted to the Engineer at the Bi-Weekly Progress Meetings specified in GP-13 in both hard copy and digital format (Adobe Acrobat® Format, or approved equal). The typical form for Daily Progress Reports shall be developed by the Contractor and incorporated into the Work Plan.

GP-11 HURRICANE AND SEVERE STORM PLAN

The Contractor shall develop and maintain a written Hurricane and Severe Storm Plan. The Plan shall include, but not be limited to, the following:

- 11.1 What type of actions will be taken before storm strikes at the Project Site. The plan should specify what weather conditions or wave heights will require shutdown of the Work and removal of equipment, personnel, etc.
- 11.2 Notes from continuous monitoring of NOAA marine weather broadcasts and other local commercial weather forecasts.
- 11.3 Equipment list with details on their ability to handle adverse weather and wave conditions.

- 11.4 List of safe harbors or ports and the distance and travel time required to transfer equipment from the Project Site.
- 11.5 Hard copies of any written approvals or operations schedules associated with the use of the safe harbors or ports.
- 11.6 Method of securing equipment at the safe harbors or ports.
- 11.7 List of tug boats and work boats and their respective length, horsepower, etc. which will adequately transfer the equipment to safe harbor or port under adverse weather conditions.
- 11.8 Methods which will be used to secure equipment left onsite during adverse weather conditions.
- 11.9 Evacuation or immediate reaction plans to be taken by personnel for sudden storm occurrences.
- 11.10 Operations procedures which will be used to secure critical dredging equipment such as spuds, swing wires, anchor wires, or tugs during adverse weather conditions.
- 11.11 Communications protocol with local law enforcement and fire and rescue agencies.

The Contractor shall incorporate the Hurricane and Severe Storm Plan into the Work Plan. The Owner and Engineer are not responsible for the adequacy of this plan.

GP-12 HEALTH AND SAFETY PLAN AND INSPECTIONS

The Contractor shall develop and maintain a written Health and Safety Plan which allows the Work to be performed in compliance with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the safety of personnel or property. This includes maintaining compliance with the Code of Federal Regulations, Title 29, Occupational Safety and Health Administration (OSHA) and all applicable Health and Safety Provisions of the State of Louisiana.

The Contractor shall institute a daily inspection program to assure that the requirements of the Health and Safety Plan are being fulfilled. Inspections shall include the nature of deficiencies observed, corrective action taken or to be taken, location of inspection, date, and signature of the person responsible for its contents. The results of the inspections shall be recorded on Daily Progress Reports and kept at the Project Site during the Work.

The Contractor shall incorporate the Health and Safety Plan into the Work Plan. The Owner and Engineer are not responsible for the adequacy of this plan.

GP-13 PROGRESS MEETINGS AND REPORTS

The Engineer shall schedule meetings to review the progress of the Work, coordinate future efforts, discuss compliance with the Progress Schedule and resolve miscellaneous problems. The Engineer or Resident Project Representative, Contractor, and all Subcontractors actively

working at the Project Site shall attend each meeting. Representatives of suppliers, manufacturers, and other Subcontractors may also attend at the discretion of the Contractor. The Contractor shall record the details of each meeting in a Progress Report. The format of this report shall be developed by the Contractor, approved by the Engineer, and included in the Work Plan. The progress meetings and reports shall be scheduled according to the Special Provisions.

GP-14 PRE-CONSTRUCTION CONFERENCE

A Pre-Construction Conference shall be held by the Contractor, Owner, Engineer, local stakeholders, and other appropriate personnel prior to starting construction on the date specified in the Special Provisions. This conference shall serve to establish a mutual understanding of the Work to be performed, the elements of the Progress Schedule and Work Plan, expectations for bi-weekly progress meetings, the Plans and Specifications, processing Applications for Payment, and any other items of concern. If any subcontractors are not present, another pre-construction conference will be required.

GP-15 CONTRACT INTENT

The Bid Documents are complementary; what is called for by one is as binding as if called for by all. Clarifications and interpretations or notifications of minor variations and deviations of the Contract Documents will be issued by Engineer as provided in these Specifications. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Bid Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided at no additional cost to the Owner.

GP-16 ENGINEER AND AUTHORITY OF ENGINEER

The Engineer will be the designated representative of the Owner, the initial interpreter of the Contract Documents and the judge over acceptability of all the Work. Claims, disputes, and other matters relating to the acceptability of the Work, performance by the Contractor or the interpretation of the requirements of the Contract Documents must be submitted to the Engineer in writing. Upon written request from the Contractor, the Engineer shall issue written clarifications or interpretations which are consistent with the overall intent of the Contract Documents. Such written clarifications and interpretations will be binding on the Owner and the Contractor. Either the Owner or the Contractor may make a Claim if a written clarification or interpretation justifies an adjustment in the Contract Price or Contract Times.

The Engineer has the authority to suspend the Work in whole or in part due to failure of the Contractor to correct conditions unsafe for workmen or the general public, carry out provisions of the Contract, perform conformance work, or to carry out orders. The Engineer shall submit a written order to the Contractor for work which must be suspended or resumed. Nothing in this provision shall be construed as establishing responsibility on the part of the Engineer for safety which is the responsibility of the Contractor.

The Engineer or Resident Project Representative shall keep a daily record of weather and flood conditions and may suspend the Work as deemed necessary due to periods of unsuitable weather, conditions considered unsuitable for execution of the Work, or for any other condition or reason deemed to be in the public interest.

GP-17 CONFORMITY WITH PLANS AND SPECIFICATIONS

All work and materials involved with the Work shall conform with the lines, grades, cross sections, dimensions, and other requirements shown on the Plans or indicated in these Specifications unless otherwise approved by the Engineer.

GP-18 CLARIFICATIONS AND AMENDMENTS TO CONTRACT DOCUMENTS

The Contract Documents may be clarified or amended by the Engineer to account for additions, deletions, and revisions to the Work after the Effective Date of the Agreement. The clarifications and amendments shall be addressed by either a Change Order or a written clarification by the Engineer. The Contractor shall not proceed with the Work until the Change Order or clarification has been issued by the Engineer. The Contractor shall not be liable to the Owner or Engineer for failure to report any such discrepancy unless the Contractor had reasonable knowledge.

The Contractor may request a clarification or amendment for the following:

- 18.1 Any conflict, error, ambiguity, or discrepancy within the Contract Documents; or
- 18.2 Any conflict, error, ambiguity, or discrepancy between the Bid Documents and the provision of any Law or Regulation applicable to the performance of the Bid; or
- 18.3 Any standard, specification, manual, or code (whether or not specifically incorporated by reference in the Bid Documents); or
- 18.4 Instructions by a supplier.

The official form for a written clarification is provided in Appendix B. This form shall be filled out appropriately by the Contractor and submitted to the Engineer. The Engineer shall clarify the issue in writing on either the clarification form or a Change Order and submit it to the Contractor.

GP-19 SUBCONTRACTS

The Contractor shall provide the names of all Subcontractors to the Engineer in writing before awarding any Subcontracts. The Contractor shall be responsible for the coordination of the trades and Subcontractors engaged in the Work. The Contractor is fully responsible to the Owner for the acts and omissions of all the Subcontractors. The Owner and Engineer will not settle any differences between the Contractor and Subcontractors or between Subcontractors. The Contractor shall have appropriate provisions in all Subcontracts to bind Subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents, as applicable to the Work of Subcontractors. The provisions should provide the Contractor the same power regarding termination of Subcontracts that the Owner may exercise over the Contractor under any provisions of the Contract Documents.

GP-20 WORKERS, METHODS, AND EQUIPMENT

The Contractor shall provide competent, qualified, and trained personnel to perform the Work. The Contractor shall not employ any person found objectionable by the Engineer. Any person employed by the Contractor or any Subcontractor who, in the opinion of the Engineer, does not perform the Work in a proper, skillful, and orderly manner shall be immediately removed upon receiving a written order by the Engineer. The Engineer may also suspend the Work until the Contractor removes the employee or provides a suitable replacement. Such an employee shall not be re-employed in any portion of the Work without written approval from the Engineer.

The on-site superintendent for the Contractor shall be competent, English-speaking, and qualified to receive orders, supervise, and coordinate all Work for the Contractor and any Subcontractors. The qualifications of the superintendent must be established and approved by the Engineer prior to commencement of the Work. The superintendent shall be furnished by the Contractor regardless of how much Work may be sublet. In the performance of the Work under this Contract, the Contractor shall conduct operations to avoid interference with any other Contractors.

All equipment, products, and material incorporated into the Work shall be as specified, or if not specified, shall be new, of good quality, and protected, assembled, used, connected, applied, cleaned, and conditioned in accordance with the manufacturer's instructions, except as otherwise may be provided in the Bid Documents. All equipment shall be of sufficient size and mechanical condition to meet the requirements of the Work and produce a satisfactory quality of work. Equipment shall not damage adjacent property throughout the performance of the Work. The Plant and Equipment Schedule should be completed by the Contractor.

The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures used to complete the Work in conformance with the Contract Documents.

The Contractor shall obtain permission from the Engineer if a method or type of equipment other than specified in the Contract is desired. The request shall be in writing and shall include a full description of the methods, equipment proposed, and reasons for the modification. A proposed item of material or equipment may be considered by the Engineer to be functionally equal to an item specified in the Contract if:

- 20.1 It is at least equal in quality, durability, appearance, strength, and design characteristics;
- 20.2 There is no increase in any cost including capital, installation, or operating to the Owner;
- 20.3 The proposed item will conform substantially, even with deviations, to the detailed requirements of the item named in the Bid Documents.

If, after trial use of the substituted methods or equipment, the Engineer determines that the Work produced does not meet Contract requirements, the Contractor shall discontinue use of the substituted methods or equipment and shall complete the Work with the specified methods and equipment. The Contractor shall remove the deficient Work and replace it with Work of specified quality or take other corrective action as directed. No change will be made in basis of payment for construction items involved or in Contract Time as a result of authorizing a change in methods or equipment.

GP-21 ACCIDENT PREVENTION, INVESTIGATIONS, AND REPORTING

The Contractor shall be responsible to develop and maintain all safeguards and safety precautions necessary to prevent damage, injury, or loss throughout the performance of the Work. All accidents at the Project Site shall be investigated by the immediate supervisor of employee(s) involved and reported to the Engineer or Resident Project Representative within one (1) working day. A complete and accurate written report of the accident including estimated lost time days shall be submitted to the Engineer within four (4) calendar days. A follow-up report shall be submitted to the Engineer if the estimated lost time days differ from the actual lost time days.

GP-22 PRESERVATION AND RESTORATION OF PROPERTY, MONUMENTS, ETC.

The Contractor shall comply with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the preservation and protection of public and private property. The Contractor shall install and maintain suitable safeguards and safety precautions during the Work as necessary to prevent damage, injury, or loss to property. This responsibility shall remain with the Contractor until the Work has been completed and accepted. Any damage, injury, or loss to property which is caused by the Contractor or Subcontractors shall be repaired or replaced at the expense of the Contractor.

The Contractor shall protect all land monuments, State and United States bench marks, geodetic and geological survey monuments, and property markers from disturbance or damage until an authorized agent has witnessed or otherwise referenced their location. The Contractor shall also provide protection for all public and private property including trees, utilities, pipes, conduits, structures, etc. These items shall not be removed unless directed by the Engineer.

The Contractor shall be responsible to completely repair all damages to public or private property due to any act, omission, neglect, or misconduct in the execution of the Work unless it is due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, public enemies, or governmental authorities. The damage must be repaired at the expense of the Contractor before final acceptance of the Work can be granted by the Engineer. If the Contractor fails to repair the damage within forty-eight (48) hours, the Owner may independently proceed with the repairs at the expense of the Contractor by deducting the cost from the Contract. If the Contractor cannot provide for the cost of repairs, the Surety of the Contractor shall be held until all damages, suits, or claims have been settled.

GP-23 PROTECTION OF THE WORK, MATERIALS, AND EQUIPMENT

It shall be the responsibility of the Contractor to protect the Work, materials, and equipment from damages or delays due to inflows, tidal rise, and storm water runoff which may occur at the Project Site. The Owner shall not be held liable or responsible for these types of delays or damages.

GP-24 LAND RIGHTS

The Owner has been granted all of the temporary easements, servitudes, and right-of-way agreements from public and private landowners in order to perform the Work. A land rights memorandum which lists all known responsible contacts and required stipulations is provided in Appendix C. The Contractor is responsible to notify all of the contacts and abide by stipulations listed in that memorandum.

GP-25 UTILITIES

The Owner has been granted all of the temporary easements, servitudes, and right-of-way agreements from public and private utilities in order to perform the Work. The utilities include, but are not limited to telephone, telegraph, power poles or lines, water or fire hydrants, water or gas mains and pipelines, sewers, conduits, and other accessories or appurtenances of a similar nature which are fixed or controlled by a city, public utility company or corporation.

The Contractor shall conduct the Work in such a manner as to cooperate and minimize inconveniences with utilities. Prior to commencement of the Work, the Contractor is responsible to notify all of the utilities and abide by stipulations required by the utility company(s). The Contractor shall also call "Louisiana One Call" at 1-800-272-3020 a minimum of 5 working days prior to construction to locate existing utilities at the Project Site.

Any damage to utilities that is caused by the Contractor within the Project Site shall be repaired at the expense of the Contractor. The Owner will not be responsible for any delay or damage incurred by the Contractor due to working around or joining the Work to utilities left in place or for making adjustments.

Any unidentified pipes or structures which may be discovered within the limits of the Project Site shall not be disturbed and shall be reported to the Engineer as soon as possible. Construction or excavation shall not be performed around unidentified utilities without prior approval from the Engineer.

GP-26 PERMITS

Federal and State permits that are required to perform the Work (I.E., Joint Coastal Use Permit from the United States Army Corps of Engineers and the Louisiana Department of Natural Resources, LDEQ Clean Water Permit, LDWF Fill Material License, LADOTD highway crossing permit, etc.) have been secured by the Owner and are provided in these Specifications. These permits will not relieve the responsibility of the Contractor from obtaining any additional permits which may be required to complete the Work. The Contractor shall submit copies of these additional permits to the Owner. The Contractor shall

conform to the requirements therein and display copies of the permits in a public setting at the Project Site at all times.

GP-27 PROJECT SITE CLEAN-UP

The Contractor shall keep the Project Site free from accumulations of waste material or trash at all times. All trash and waste materials shall be removed by the Contractor and disposed off-site in an approved waste disposal facility. In addition, all equipment, tools, and non-conforming work shall also be removed prior to the Work being accepted. No materials shall be placed outside of the Project Site.

GP-28 OWNER INSPECTION

The Owner, Resident Project Representative, and Federal Sponsor shall have the right to perform reasonable inspections and testing of the Work at the Project Site. Access shall be granted to the entire Project Site including all materials intended for use in the Work. The Contractor shall allow reasonable time for these inspections and tests to be performed. The inspections shall not relieve the Contractor from any obligation in accordance with the requirements of the Contract.

The Owner shall notify the Contractor prior to all tests, inspections, and approvals of the Work which are to be conducted at the Project Site. The Owner shall also provide the Contractor with the written results of all inspections and tests. Inspections, tests, or Payments made by the Owner shall not constitute acceptance of non-conforming Work of prejudice the Owner's rights under the Contract.

GP-29 DUTIES OF RESIDENT PROJECT REPRESENTATIVE

A Resident Project Representative shall be assigned by the Engineer to the Project Site to observe the Contractor and monitor the progress and manner in which the Work is being performed. The Resident Project Representative will also report to the Engineer and Contractor whenever materials or Work fail to comply with the Contract. The Resident Project Representative is authorized to reject any materials or suspend work which does not comply with the Contract until the issue is resolved by the Engineer.

However, the Resident Project Representative is not authorized to revoke, alter, enlarge, relax, or release any requirements of the Contract, or to approve or accept any portion of the Work, or to issue instructions contrary to the Plans and Specifications. The Resident Project Representative shall not manage or perform duties for the Contractor.

GP-30 CONSTRUCTION STAKES, LINES, AND GRADES

The Engineer shall direct the Contractor to all control points necessary for setting stakes and establishing lines and grades as shown on the Plans. The Contractor shall be responsible for laying out all of the Work. All layouts shall be witnessed and verified by the Engineer or Resident Project Representative prior to beginning the Work. The Contractor shall be responsible for proper execution of the Work according to the layouts after receiving verification from the Engineer.

The Contractor shall be responsible for furnishing and maintaining stakes such that the Work can be verified for acceptance. The Engineer may suspend the Work at any time if it can not be adequately verified due to the number, quality, or condition of the stakes.

GP-31 CONTRACTOR'S RESPONSIBILITY FOR WORK

The Contractor shall execute all items covered by the Contract, and shall furnish, unless otherwise definitely provided in the Contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to complete the Work. The Contractor shall pay constant attention to the progress of the Work and shall cooperate with the Engineer in every way possible. The Contractor shall maintain a complete copy of the Contract at all times, including the Plans, Specifications, and any authorized modifications.

GP-32 CONTROL OF SILTATION AND WATER POLLUTION

The Contractor shall comply with all applicable Federal and State regulations and statutes relating to the prevention and abatement of pollution in the performance of the Contract. The Contractor shall conduct the Work in a manner that will not cause damaging concentrations of silt or pollution to water. The Contractor shall prevent fuels, oils, bituminous materials, chemicals, sewage, or other harmful contaminants from entering the land or water.

GP-33 SANITARY PROVISION

The Contractor shall provide and maintain sanitary accommodations for use by all employees and Subcontractors. Facilities shall comply with the requirements of the Louisiana State Board of Health and Hospitals and other authorities having jurisdiction. Committing public nuisance on the Project Site is prohibited.

GP-34 PAYMENT OF TAXES

The Contractor shall be responsible for all taxes and duties that maybe levied under existing State, Federal, and local laws during the completion of the Work. The Owner will presume that the amount of such taxes is included in the unit prices bid by the Contractor and will not provide additional reimbursement.

GP-35 RADIO AND TELEPHONES

The Contractor shall furnish and maintain radio and telephone equipment throughout the Contract Time which will allow communication between the Contractor and the Engineer or Resident Project Representative.

GP-36 NAVIGATION

All marine vessels shall comply with the following Federal Laws and Regulations:

- 36.1 The International Navigational Rules Act of 1977 (Public Law 95-75, 91 Stat. 308, or 33 U.S.C. 1601-1608); and
- 36.2 The Inland Navigation Rules Act of 1980 (Public Law 96-591, 94 Stat. 3415, 33 U.S.C. 2001-2038).

These rules can be found on the Internet at:

<http://www.navcen.uscg.gov/?pageName=navRulesContent>. All marine vessels shall display the lights and day shapes required by Part C- Lights and Shapes of the Inland Navigation Rules. The location, type, color, and size of the lights and day shape shall be in accordance with Annex I - Positioning and Technical Details of Lights and Shapes. Any vessel engaged in dredging is considered a "Vessel restricted in her ability to maneuver" and shall display all the lights and shapes required in Rule 27, "Vessel Not Under Control."

GP-37 OBSTRUCTION TO NAVIGATION

The Contractor shall minimize all obstructions to navigation in compliance with pertinent U. S. Coast Guard regulations while conducting the Work. The Contractor shall promptly move any floating equipment or marine vessels which obstruct safe passage of other marine vessels. Upon completion of the Work, the Contractor shall remove all marine vessels and other floating equipment such as temporary ranges, buoys, piles, and other marks or objects that are not permanent features of the Work.

GP-38 MARINE VESSELS AND MARINE ACTIVITIES

All marine vessels operated by the Contractor shall possess a valid United State Coast Guard (USCG) inspection certificate and current American Bureau of Shipping (ABS) Classification. All officers and crew shall possess valid USCG licenses as required by USCG regulations. These certificates, classifications, and licenses shall be posted in a public area on board each vessel.

All marine vessels not subject to USCG certification or ABS Classification shall be inspected annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS). All inspections shall be documented using an appropriate report format. At a minimum, the inspections shall evaluate the structural integrity of the vessel and comply with the National Fire Protection Association Code No. 302- Pleasure and Commercial Motor Craft. The most recent inspection report shall be posted in a public area on board each vessel.

GP-39 RECORD KEEPING

The Contractor shall maintain orderly records of the Progress Schedule, Daily Progress Reports, Progress Meetings, correspondence, submittals, reproductions of original Contract Documents, Change Orders, Field Orders, certificates, additional drawings issued subsequent to the executed Contract, clarifications and interpretations of the Contract Documents by the Engineer, and other related documents at the Project Site until all of the Work is accepted by the Engineer.

GP-40 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in three (3) copies. Each certificate shall be certified by an authorized agent of the supplying company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date of shipment. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the testing date. The Contractor shall also certify that all materials and test reports conform to the requirements of the Contract. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material if the material is tested and determined to be in nonconformance.

GP-41 SUBMITTALS

The Contractor shall review all Submittals for compliance with the requirements of the Contract prior to delivery to the Engineer. Each Submittal shall contain a signed statement by the Contractor that it complies with the Contract requirements with any exceptions explicitly listed. The Contractor shall comply with these requirements for Submittals from Subcontractors, manufacturers, and suppliers.

All Submittals shall include sufficient data to demonstrate that the requirements of the Contract are met or exceeded. All submittals shall be legible and marked with the project title and clearly identify the item submitted. Each submittal package shall include an itemized list of the items submitted.

All Submittals shall be reviewed within fourteen (14) days after being received by the Engineer. The Contractor shall allow the Engineer sufficient time for review, corrections, and resubmission of all Submittals prior to beginning the associated Work. The Contract Time shall not be extended based on incorrect or incomplete Submittals.

GP-42 CLAIMS FOR EXTRA COST

The Contractor is expected to complete the Work according to the Contract Price specified in the Bidding Documents. If the Contractor deems additional compensation is due for work, materials, delays or other additional costs/or expenses not covered in the Contract or not ordered as extra work, the Contractor shall give the Engineer written notice thereof within fourteen (14) calendar days after the receipt of such instructions and, in any event, before commencing the procedure. The Contractor shall justify the claim for extra cost by providing supporting data and calculations. The Engineer shall determine whether the Contractor is entitled to be compensated for such extra cost and shall make any required adjustments of the Contract in accordance with GP-43. If no written claim is made within this fourteen (14)

calendar-day period, the Contractor will be deemed to have waived any claim for extra cost for such work.

Claim for damages or delays of the Work shall not be made by the Contractor for a relocation of the construction operation or portions thereof to other locations within the geographical scope of the project, when in the opinion of the Engineer, such relocation is necessary for the most effective prosecution of the Work and may be accomplished without undue hardship.

GP-43 ALTERATION OF THE CONTRACT AND COMPENSATION

Using Change Orders, Field Orders, or Written Amendments, the Owner may order extra work or make changes by altering the details of construction, add to or deduct from the Work. The requirements and stipulations of these documents shall be binding on the Owner and Contractor throughout the remainder of the Contract. Any claim for an extension of Contract Time caused thereby shall be adjusted at the time of ordering such change.

The value of any such extra work or change shall be determined in one or more of the following ways and in the following priority:

43.1 By application of the unit prices in the Contract to the quantities of the items involved or subsequently agreed upon; or

43.2 By mutual acceptance between the Owner and Contractor of a lump sum.

If none of the above methods is agreed upon, the Contractor, provided he is so ordered by the Owner in writing, shall proceed with the Work on a "force account" basis. In such a case, the Contractor shall keep and preserve in such form as the Engineer may direct, a correct itemized account of the direct cost of labor, materials, equipment, together with vouchers bearing written certification by the Contractor. In any case, the Engineer shall certify to the amount, including an allowance of fifteen percent (15%) for jobsite and home office overhead indirect expenses and profit due to the Contractor. Where such change involves a subcontractor, an allowance of fifteen percent (15%) for overhead and profit shall be due the subcontractor and an allowance of ten percent (10%) shall be due the Contractor. Pending final determination of value, payments on account of changes shall be made on the Engineer's estimate and as approved in an executed Change Order.

If the Contractor is prevented from completing the Work according to the Contract Price due to the Owner, the Contractor may be entitled to any reasonable and necessary addition of cost as determined by the Engineer. Neither the Owner nor the Contractor shall be entitled to any damages arising from events or occurrences which are beyond their control, including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, acts of war, and other like matters. The provisions of this section exclude recovery for damages caused by the Contractor and compensation for additional professional services by either party.

GP-44 EXTENSION OF CONTRACT TIME

The Contractor is expected to complete the Work within the Contract Time specified in the Bidding Documents. A legitimate increase of the Contract time may be requested by the Contractor throughout the course of the Work. This Claim must be submitted to the Engineer in writing within fourteen (14) days of the event which caused the time delay to the

Contractor. If an extension of Contract Time involves an increase in Contract Price, both claims shall be submitted together. The Contractor shall justify the increase of the Contract Time in the Claim using supporting data and calculations. The Engineer may deny the claim if there is insufficient information to make a determination. If the Claim is approved, the Engineer shall issue a Change Order within thirty (30) days of the Claim. The Contract Time shall be increased on a basis that is commensurate with the amount of additional or remaining Work. For example, the Contract Time can be increased where the number of actual adverse weather days exceeds the number of days estimated in the Contract.

GP-45 DEFAULT AND TERMINATION OF CONTRACT

The Owner shall submit a written notice to the Contractor and Surety which justifies placement of the Contractor in default if:

- 45.1 The Work is not begun within the time specified in the Notice to Proceed; or
- 45.2 The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion; or
- 45.3 The Contractor performs unsuitable, neglected or rejected work, refuses to remove materials; or
- 45.4 The Work is discontinued; or
- 45.5 The Work is not completed within the Contract Time or time extension; or
- 45.6 Work is not resumed within a reasonable time after receiving a notice to continue; or
- 45.7 The Contractor becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency; or
- 45.8 The Contractor allows any final judgment to stand unsatisfied for a period of ten (10) days; or
- 45.9 The Contractor makes an assignment for the benefit of creditors; or
- 45.10 The Work is not performed in an acceptable manner.

If the Contractor or Surety does not remedy all conditions cited in the written notice within ten (10) days after receiving such a notice, the Contractor will be in default and the Owner shall remove the Contractor from the Work. If the Contractor is placed into default, the Owner may obtain the necessary labor, materials, and equipment or enter into a new Agreement and Contract in order to complete the Work. All costs incurred by the Owner for completing the Work under the new Contract will be deducted from the payment due the Contractor. If the expense exceeds the sum payable under the Contract, the Contractor and Surety shall be liable to pay the Owner the difference.

GP-46 TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to temporarily suspend the Work in whole or in part. A Field Order shall be issued to the Contractor for any of the Work that is suspended for periods exceeding one (1) calendar day. The Field Order shall include the specific reasons and details for the suspension. The Contract Time shall not be extended if the Work is suspended due to failure by the Contractor to comply with a Field Order or with the Plans and Specifications. If the Work is suspended in the interest of the Owner, the Contractor shall make due allowances for the lost time.

GP-47 NON-CONFORMING AND UNAUTHORIZED WORK

Work not conforming to the Plans, Specifications, Field Orders, or Change Orders shall not be accepted for payment. Unacceptable or unauthorized work shall be removed and replaced in an acceptable manner at the expense of the Contractor in order to obtain final acceptance of the Work.

GP-48 CONTRACTOR'S RIGHT TO TERMINATE CONTRACT

The Contractor may terminate the Contract or Work and recover payment from the Owner for labor and materials if the Work is stopped through no act or fault of the Contractor for more than three (3) months. For example, such an occurrence could be caused by a court order or other public authority. In any case, the Contractor shall submit a written notice to the Engineer at the beginning of the occurrence, and a written Claim to the Owner at the end of the occurrence.

GP-49 BREACH OF CONTRACT

The Owner shall submit a written Claim to the Contractor regarding any breach of the Contract. The Contractor must provide a written response to the Owner regarding the breach of Contract within ten (10) days after the Claim. This response must provide either an admission to the Claim or a detailed denial based on relevant data and calculations. The failure of the Contractor to provide a proper response within ten (10) days shall result in justification of the Claim by default.

GP-50 NO WAIVER OF LEGAL RIGHTS

The Owner shall not be prevented from recovering costs from the Contractor, Surety, or both due to failure of the Contractor to fulfill all of the obligations under the Contract. If a waiver is provided to the Contractor for a breach of Contract by the Owner, it shall not apply to any other breach of Contract. Final acceptance of the Work shall not prevent the Owner from correcting any measurement, estimate, or certificate. The Contractor shall be liable to the Owner without prejudice to the terms of the Contract or any warranty for latent defects, fraud, or gross negligence.

GP-51 LIABILITY FOR DAMAGES AND INJURIES

To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner, Engineer, and their affiliates from claims, costs, losses, demands, and judgments (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) caused by negligence of the Contractor or the Contractor's affiliates under this Contract, provided that it results in bodily injury, sickness, disease, or death, or in injury to or destruction of tangible property including the loss of use resulting there from.

The indemnification obligations of the Contractor shall not extend to the liability of the Owner, Engineer, and their affiliates arising out of the preparation or approval of the Plans, Specifications, maps, opinions, reports, surveys, or Change Orders, or for providing directions or instructions which are the primary cause of the injury or damage.

Should the Owner or Contractor suffer from any injury or damage due to an error, omission, or act of the other party or their legally liable affiliates, a written Claim shall be submitted to the other party within ten (10) days. The Claim shall provide all details regarding the injury or damage, the results of any investigations, and the action to be taken to prevent any recurrence.

GP-52 LIABILITY FOR LOSSES BY ACTS OF THE GOVERNMENT

The Owner shall not be liable for any loss or damage suffered by the Contractor arising out of a cessation of Work under this Contract due to any act or order of any local, state, or federal government agency. If this cessation occurs, the Contractor may request an extension of the Contract Time according to the provisions in GP-44.

GP-53 FINAL INSPECTION AND ACCEPTANCE

The Engineer, Owner, and Contractor shall perform a final inspection after receiving written notice from the Contractor that all of the Work is complete. If the Work is determined to be unsatisfactory, the Engineer shall notify the Contractor in writing of the deficiencies and recommended corrective actions.

Unfulfilled work or damages caused by the negligence of the Contractor or Subcontractors shall be repaired or corrected at the expense of the Contractor. All other damages to the Work which received previous acceptance by the Engineer shall be repaired at the expense of the Owner. Upon completion of the repairs or corrections, the Engineer, Owner, and Contractor shall perform another inspection. The Engineer shall submit a written notice of acceptance to the Owner after the Work has been determined to be satisfactorily completed according to the Contract.

GP-54 AS-BUILT DRAWINGS

The Contractor shall submit all originals and copies of the As-Built Drawings to the Engineer for review and acceptance in accordance with the Special Provisions. The As-Built Drawings shall provide complete data for quantities, dimensions, specified performance and design criteria, and similar items which clearly represent the services, materials, and equipment the Contractor has provided. All revision sheets shall be clearly stamped with the words "As-Built".

GP-55 COMPLETION OF CONTRACT

Completion of the Contract requires all of the Work to be complete, inspected by the Engineer, accepted by the Owner as recommended by the Engineer, and after, final payment is made. After the Contract is complete, the Contractor will then be released from further obligation except as set forth in the Contract Bond and Contractor's Guarantee.

GP-56 CONTRACTOR'S GUARANTEE

The Contractor is obligated to provide a written guarantee to the Owner that all of the Work conforms to the Contract Documents. The Work shall be guaranteed to survive for a minimum period of one (1) year after final acceptance, unless otherwise specified in the Technical Specifications.

56.1 The guarantee shall include:

- 56.1.1 A written warranty by the manufacturer for each piece of installed project equipment or apparatus furnished under the Contract.
- 56.1.2 Any necessary repair or replacement of the warranted equipment during the guarantee period at no cost to the Owner.
- 56.1.3 Satisfactory operation of installed equipment including, but not limited to, any mechanical and electrical systems furnished and constructed under the Contract during the guarantee period. The Contractor shall repair all equipment which fails due to defective materials or faulty workmanship during the guarantee period. The Contractor shall also be liable for all other ancillary expenses incurred by the Owner due to the failure.

56.2 The guarantee shall exclude defects or damage caused by:

- 56.2.1 Abuse or improper modification, maintenance, or operation by anyone other than the Contractor; or
- 56.2.2 Wear and tear under normal usage.

56.3 This obligation by the Contractor shall be absolute. The following actions will not constitute acceptance of non-conformance Work or release the Contractor from obligation to furnish the Work in accordance with the Contract Documents:

- 56.3.1 Observations by the Owner or Engineer; or

- 56.3.2 Recommendations by the Engineer or payment by the Owner; or
- 56.3.3 Use of the Work by the Owner; or
- 56.3.4 Issuance of a notice of acceptance by the Owner pursuant to the provisions of GP-47, or failure to do so; or
- 56.3.5 Any inspection, test, or approval by others; or
- 56.3.6 Any correction to non-conforming work by the Owner.

END OF PART I - GENERAL PROVISIONS

PART II SPECIAL PROVISIONS

SP-1 LOCATION OF WORK

The Work site is located in Jefferson and Plaquemines Parishes, near Phillips 66 refinery in Alliance, west of the town of Myrtle Grove, LA and southeast of the Pen along Bayou Dupont. The borrow area is accessible via the Mississippi River. The pipeline permanent access corridor and marsh creation areas are accessible via Louisiana Highway 23 (LA 23), West Ravenna Road, and/or by boat via Bayou Dupont. See Sheet 4 of the Plans for additional details.

SP-2 WORK TO BE DONE

The Contractor shall provide all labor, materials, and equipment necessary to perform the Work. The Work shall be performed in accordance with these Specifications and in conformity to the lines, grades, and elevations shown on the Plans or as directed by the Engineer. Quantity calculations, layouts, shop drawings, and construction sequencing of these items shall be provided in the Work Plan.

2.1 Base Bid

The Work associated with the Base Bid is listed in the Schedule of Bid Items shown on Page 1 of the Specifications. Additional details on these items are listed in the Technical Specifications. The following are major tasks of the Work associated with the Base Bid:

- 2.1.1 Mobilization and Demobilization of personnel and equipment at or to the Project Site;
- 2.1.2 Performance and administration of Construction Surveys;
- 2.1.3 Construction of 33,720 linear feet of Earthen Containment Dikes;
- 2.1.4 Construction of 11,117 linear feet of Earthen Ridges;
- 2.1.5 Excavation/dredging of flotation access to get equipment from Barataria Waterway to Bayou Dupont;
- 2.1.6 Construction of Marsh Creation Fill Sites by hydraulically dredging and placing 4,725,153 cubic yards of Mississippi River sediment;
- 2.1.7 Construction of new bridge and culvert crossing replacement over existing canal crossings;
- 2.1.8 Reconstruction of the Bayou Dupont Weir;
- 2.1.9 Installation of 21 Fill Settlement Plates;
- 2.1.10 Installation of Signage

2.2 Additive/Deductive Alternate Bid #1

An Additive/Deductive Alternate Bid is defined as the portion of the Work that is priced separately to be included in the Work if accepted by the Owner and included in the award of the Contract. The Work associated with the Additive/Deductive Alternate Bid is listed in the Schedule of Bid Items shown on Page 2 of the Specifications.

The Contractor will be responsible for: (1) Coordination related to requirements among sections of Specifications as required that relate to the additive/deductive bid item, (2) Include as part of each additive/deductive bid item labor, equipment, and material necessary to complete the construction of the item, and (3) Coordination of additive/deductive bid item Work with adjacent Work and modify and/or adjust as necessary to ensure all Work is integrated. The following are major tasks of Work associated with the Additive/Deductive Alternate Bid:

2.2.1 Additional Mobilization and Demobilization of personnel and equipment to construct an approximately 80 acre expansion to the BA-48 Marsh Creation Area as shown on the Plans;

2.2.2 Additional performance and administration of Construction Surveys for an 80 acre expansion to the BA-48 Marsh Creation Area;

2.2.3 Hydraulic dredging and placement of 648,382 additional cubic yards of Mississippi River sediment to construct an 80 acre expansion to the BA-48 Marsh Creation Area;

2.2.4 The alternate requires the deduction of 8,144 linear feet of earthen containment dikes shown on the base bid and the additional construction of 13,037 linear feet of earthen containment dikes.

2.3 Additive Alternate Bid #2

An Additive Alternate Bid is defined as the portion of the Work that is priced separately to be included in the Work if accepted by the Owner and included in the award of the Contract. The Work associated with the Additive Alternate Bid is listed in the Schedule of Bid Items shown on Page 3 of the Specifications.

The Contractor will be responsible for: (1) Coordination related to requirements among sections of Specifications as required that relate to the additive bid item, (2) Include as part of each additive bid item labor, equipment, and material necessary to complete the construction of the item, and (3) Coordination of additive bid item Work with adjacent Work and modify and/or adjust as necessary to ensure all Work is integrated. The following are major tasks of Work associated with the Additive Alternate Bid:

2.3.1 Additional Mobilization and Demobilization of personnel and equipment to construct an approximately 77 acre expansion to the LDSP Marsh Creation Area as shown on the Plans;

2.3.2 Additional performance and administration of Construction Surveys for a 77 acre expansion to the LDSP Marsh Creation Area;

2.3.3 Hydraulic dredging and placement of 718,560 additional cubic yards of Mississippi River sediment to construct a 77 acre expansion to the LDSP Marsh Creation Area;

SP-3 BID ITEMS, CONTRACT DATES, AND DELIVERABLES

Milestone	Location or Recipient	Date Due	Specification
Bid Advertisement	Publications	As advertised	N/A
Mandatory Pre-Bid Conference and Site Visit	Provided in Notice to Bidders	As advertised	Notice to Bidders
Questions on Bid Documents	Deliver to OSP	3 business days after Pre-Bid Conference	GP-2
Effective Date of Agreement	Contractor and Owner	Stated in Notice of Award	GP-1.20
Start of Contract Time	Contractor and Owner	As stated in Notice to Proceed	GP-7
List of Subcontractors	Submit to Engineer	Prior to awarding subcontracts	GP-19
Dredging Plan	Submit to Engineer	45 days prior to commencement of dredging	GP-8, SP-6
Work Plan	Submit to Engineer	At least 14 days prior to Pre-Construction Conference	GP-8
Progress Schedule	Submit to Engineer	At least 14 days prior to starting construction, bi-weekly thereafter	GP-9
Pre-Construction Conference	Contractor and Engineer	As determined by the Engineer after Notice to Proceed is issued	GP-14
Daily Progress Reports	Resident Project Representative	Daily by 12pm (noon). (see Appendix H for template)	GP-10
Progress Meetings and Reports	At Project Site	Bi-weekly or as determined at the Pre-Construction Conference	GP-13, GP-39
Written Notice of Completion of Work	Submit to Engineer	Upon substantial completion of work	GP-53
As-Built Drawings	Deliver to Engineer	Prior to Final Inspection as scheduled by the Engineer	GP-54
End of Contract Time	At Project Site	619 calendar days after Notice to Proceed for Base Bid (74 and 37 additional calendar days for Alternate Bids 1 and 2 respectively)	Instructions to bidders

SP-4 DELIVERABLES

4.1 Prior to Construction

- 4.1.1 The Contractor shall submit the following documents to the Engineer prior to the Pre-Construction Conference specified in GP-14:
 - 4.1.1.1 Work Plan as specified in GP-8 and SP-6;
 - 4.1.1.2 Progress Schedule as specified in GP-9;
 - 4.1.1.3 Copy of typical Daily Progress Report as specified in GP-10.
 - 4.1.1.4 Hurricane and Severe Storm Plan as specified in GP-11;
 - 4.1.1.5 Health and Safety Plan as specified in GP-12.
- 4.1.2 The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference specified in GP-14:
 - 4.1.2.1 Updates to all plans and schedules based on comments from the Engineer;
 - 4.1.2.2 Potential construction corridors (if needed, other than from what is provided) which may be approved on an as needed basis
 - 4.1.2.3 A communication plan shall be submitted which specifies the the Contractor chain of command, Owner, Engineer, and Resident Project Representative(s) points of contact, corresponding contact information, and procedures for routine and emergency notification.
- 4.1.3 The Contractor shall provide a dredge plan for approval by the USACE to the Engineer at least 45 days prior to the commencement of work in accordance with the Permit conditions.

4.2 During Construction

The Contractor shall deliver copies of the following documents upon request by the Engineer, or as specified in these provisions:

- 4.2.1 The results of all surveys and calculations as specified in TS-3;
- 4.2.2 Progress Schedule as specified in GP-9;
- 4.2.3 Daily Progress Reports as specified in GP-10;
- 4.2.4 Copies of all inspection reports;
- 4.2.5 All Change Orders, Field Orders, Claims, Clarifications, and Amendments;
- 4.2.6 Results of any materials testing.

4.3 Administrative Records

4.3.1 Notice of Intent to Dredge

At least 30 days prior to commencement of Work on this Contract, the Contractor shall notify the U.S. Coast Guard, Sector New Orleans Command Center, at the address below, of his intended operations to dredge and request that it be published in the Local Notice to Mariners. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least seven (7) days prior to the commencement of this dredging operation. A copy of the Department of the Army Permit and drawings shall be provided to the U.S. Coast Guard. A copy of the notification shall be provided to the Owner and Engineer.

U.S. Coast Guard
Sector New Orleans Command Center
201 Hammond Hwy
Metairie, LA 70005
504-846-5923

The Contractor shall assure that work does not impede or interfere with navigation on the Mississippi River and shall maintain ongoing coordination with the Marine Navigation Safety Association (MNSA) and the United States Coast Guard.

4.3.2 Relocation of Navigational Aids

Temporary removal of any navigation aids located within or near the areas required to be dredged or filled and material stockpile areas shall be coordinated by Contractor with the U.S. Coast Guard prior to removal. The Contractor shall not otherwise remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Eighth U.S. Coast Guard District, New Orleans, Louisiana, in writing, with a copy to the Owner and Engineer, seven (7) days in advance of the time he plans to dredge or Work adjacent to any aids

which require relocation to facilitate the Work. The Contractor shall contact the U.S. Coast Guard for information concerning the position to which the aids will be relocated.

4.3.3 Dredging Aids

The Contractor shall obtain approval for all dredging aids, including but not limited to temporary navigation aids, warning signs, buoys, and lights, he requires to conduct the Work specified in this Contract. The Contractor shall obtain a temporary permit from the U.S. Coast Guard for all buoys or dredging aid markers to be placed in the water prior to installation. The permit application shall state the position, color, and dates to be installed and removed for all dredging aid markers and be submitted to the U.S. Coast Guard. Dredging aid markers and lights shall not be colored or placed in a manner that they will obstruct or be confused with navigation aids. Copies of the application and permit shall be submitted to the Owner and Engineer seven (7) days prior to commencement of dredging operations.

4.3.4 Notification of Discovery of Historical or Cultural Sites

If during construction activities the Contractor observes items that may have prehistoric, historical, archeological, or cultural value, the Contractor shall immediately 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. Such observations shall be reported immediately to the Owner and Engineer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special dispositions of the finds should be made. The Contractor shall report any observed unauthorized removal or destruction of such resources by any person to the Owner and Engineer so the appropriate State of Louisiana authorities can be notified. The Contractor shall not resume Work at the site in question until State authorities have rendered judgment concerning the artifacts of interest.

4.4 Post Construction

The Contractor shall contact the Engineer by phone or email, a minimum of five (5) working days prior to the anticipated completion of the Work in order to schedule the final inspection and gain Acceptance by the Engineer. The following documents shall also be submitted to the Engineer:

4.4.1 Copies of all delivery slips, which shall include the source of construction materials, date of delivery, exact quantity, and size of materials delivered with each shipment to the Project Site;

4.4.2 As-Built Drawings as specified in GP-54.

4.5 Summary of Project Submittals

The following table is a summary of submittals required of the Contractor as part of this section and other sections of these Specifications:

Submittal	Location or Recipient	Date Due	Specification
Work Plan	Engineer	Prior to Construction	GP-8 and SP-6
Progress Schedule	Engineer	Prior to Construction	GP-9
Typical Daily Progress Report	Engineer	Prior to Construction	GP-10
Hurricane and Severe Storm Plan	Engineer	Prior to Construction	GP-11
Health and Safety Plan	Engineer	Prior to Construction	GP-12
Braced Excavation Plan	Engineer	Submitted with Work Plan	-
Names of all Subcontractors	Engineer	Prior to Awarding Subcontracts	GP-9
Plan and Schedule Updates	Engineer	Pre-Construction Conference	GP-9 and SP-6
Construction Corridors	Engineer	Pre-Construction Conference	-
Dredging Plan	Engineer	45 days prior to Commencement of Dredging	GP-8 and SP-6
Pre-Construction Survey	Engineer	21 Days Prior to Start of Excavation or Dredging	TS-3
Results of Surveys and Calculations	Engineer	During Construction	TS-3
Dredge Borrow Area Survey	Engineer	Every 30 days	-
Progress Schedule	Engineer	During Construction	GP-9
Daily Progress Reports	Resident Project Representative	Daily by 12pm (noon)	GP-10
Copies of Inspection Reports	Engineer	During Construction	-
Results of Materials Testing	Engineer	During Construction	-
Notice of Intent to Dredge	Coast Guard	30 Days Prior to Commencement of Work	-
Notice to Mariners	Engineer	7 Days Prior to Start of Dredging	-
Delivery Slips	Engineer	5 Days Prior to the Anticipated Completion Date	-
As-Built Drawings	Engineer	Prior to Final Acceptance	GP-54

SP-5 ADDRESSES FOR DOCUMENT DELIVERY

Prior to Bid opening date, the Contractor shall send all Bid Documentation to the attention of **Hilary Stephenson** of the Office of State Purchasing. The address and contact information is as follows:

State Purchasing Officer
Office of State Purchasing
Post Office Box 94095
Baton Rouge, LA 70804-9095
Phone: 225-342-8022
Fax: 225-342-8688

After award, the successful Contractor shall contact the Engineers concerning bid documentation or questions. The addresses and contact information for the Engineers are listed as follows:

CPRA Project Engineer
Kodi Collins, P.E.
P.O. Box 4407
Baton Rouge, Louisiana 70804-4027

Phone: 225-342-4106
Fax: 225-342-6801
E-mail: Kodi.Collins@la.gov

CPRA Field Engineer
Barry Richard, P.E.
2045 Lakeshore Drive
CERM Building, Suite 309
New Orleans, Louisiana 70122
Phone: 504-280-4059
Fax: 504-280-4066
E-mail: Barry.Richard@la.gov

The Owner and Engineer shall deliver all written Claims, Notices, Submittals, Plans, and other documents to the Contractor at the address indicated on the Bid.

SP-6 WORK PLAN SUPPLEMENTAL

The following items shall be included in the Work Plan in addition to those required by GP-8:

- 6.1 Dredge Data Sheet as specified in SP-9;
- 6.2 Layout and construction schedule for internal training dikes and/or containment dikes;
- 6.3 Layout and schedule for dredge pipes;
- 6.4 Dredge plan (see Appendix I for sample template);
- 6.5 Braced excavation plan (see Appendix L for requirements).

SP-7 FAILURE TO COMPLETE ON TIME

For each day the Work remains incomplete beyond the Contract Time, as specified in SP-3, or Extension of Contract Time, as specified in GP-44, the sum of two-thousand four hundred fifty dollars (\$2,450) per calendar day will be deducted from any money due to the Contractor as liquidated damages. The Contractor and Surety shall be liable for any liquidated damages that are in excess of the amount due the Contractor.

SP-8 TRANSPORTATION

The Contractor shall provide a safe and reasonable means of transportation to and from the marine access structure, staging area, and Project Site for the Engineer and the federal sponsor throughout the Work. The schedule and pickup location shall be arranged by the Engineer and the Contractor prior to mobilization. Upon request, overnight room and board shall be provided to these personnel by the Contractor if adequate facilities are available. If lodging is provided for the Work crew, the Contractor shall also provide lodging for the Resident Project Representative. The Contractor shall provide daily transportation capable of access to the entire Work area. This will include a boat or airboat (minimum 4 passenger capacity) and operator, as necessary, for the exclusive use of the Engineer, Resident Project Representative, and other representatives from the State to tour the Project Site during the Work. The boat shall: be capable of maintaining 25 knots (29 mph); be Coast Guard certified; have an operable marine radio; and have all safety equipment required by the Coast Guard for the size and type of that boat.

The Contractor shall supply the fuel and maintain the boat. All mechanical malfunctions of the boat shall be repaired within twelve (12) hours. In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use other necessary boats at the expense of the Contractor. The costs associated with providing the boats shall be included in the lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-9 DREDGE DATA SHEET

The Contractor shall complete the dredge data sheet in Appendix A for each dredge that is proposed to be used to perform the Work and include it in the Bid. Submittal of a dredge data sheet shall constitute a certification that the described equipment is available to, and under control of, the Contractor. The Dredge Data Sheet is for informational purposes only and will not be used as a basis for Award. The data is pertinent to the evaluation of the proposed dredges and their capability to perform the Work. The bidder may only omit data or information that is considered to be proprietary.

SP-10 OFFICE FOR OWNER

The Contractor shall provide an office for the Engineer and Resident Project Representative at the Project Site. This office shall be for the sole use of the Engineer or Resident Project Representative, suitably sized, and provided with lighting, heat, and air conditioning. The office furnishings shall include a work table, drafting table, stool, and two chairs.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use another necessary office at the expense of the Contractor. The cost for providing and furnishing this office shall be included in the contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-11 LANDOWNER AND PIPELINE REQUIREMENTS

The Owner has obtained all temporary easement, servitude, and right-of-way agreements required for construction of the project. The agreements executed with landowners for the Work at the site contain special requirements pertaining to access routes and insurance. A land rights memorandum and a map and list of landowners are included in Appendix C. The Contractor shall give reasonable notice to landowner (Grantor) prior to initiation of access to the said lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project. The Contractor shall abide by the stipulations set forth by the respective landowners (Grantors):

Marsh Fill Area:

RIVER REST LLC
C/O John W. Newman
605 South America Street
Covington, LA 70433

HENRY J. JUMONVILLE, III
1210 Webster Street
New Orleans, LA 70118
504-891-8187

RIVER REST LLC
C/O Mike Jeansonne
1800 Carol Sue Ave., Suite 7
Gretna, LA 70056
(504) 392-9902

FRANCOISE J. VOSBEIN
164 Mangrove Street
Pass Christian, MS 39571
228-363-0954

WILDLIFE LANDS, LLC
C/O Shawn Killeen
601 Poydras Street, Suite 1815
New Orleans, Louisiana, 70130
504-275-4222

MATHILDE A. JUMONVILLE
P.O. BOX 818
Foley, AL 36535
251-895-7757

MADISON LAND COMPANY
Marietta Smith Greene
3712 N. Hullen Street
Metairie, LA 70002
504-454-0707

J. ROBERT JUMONVILLE
1809 Broadway Street
New Orleans, LA 70118
504-891-8187

HENRY HALLER, JR.
11446 Ashton Lane East
Gulfport, MS 39503
(228) 832-7878

SARA LOUISE JUMONVILLE
150 Broadway Street, Apt. 714
New Orleans, LA 70118
504-891-8180

ROCMILL, INC.
David P. Milling, Vice President
P.O. Box 1610
Covington, LA 70434

SARA LOUISE J. BUGBEE
207 Audubon Trace
Jefferson, LA 70121

MICHAEL L. NEEB
1300 Nursery Place
Metairie, Louisiana 70005
Anne Neeb 504-373-5941

TERRMA, CO.
W. Brooke Fox, President
3222 Roman Street
Metairie, LA 70001
fax 504-832-2544

WEBB WORTHINGTON TRUST
Courtney Webb McKenney, Trustee
4209 Delaware Avenue
Kenner, La 70065
504-431-2631

CLIFFORD WEBB LLC
Mike Webb
23220 Tall Timbers Rd.
Ponchatoula, LA 70454
985-345-6522

LOUISIANA LAND AND
EXPLORATION COMPANY
Conoco Phillips
Attention: Jeff DeBlieux
806 Bayou Black Drive
Houma, LA 70361

SHELBY J. ADAM
2017 Manor Heights Drive
Marrero Louisiana 70072
504-347-7198

DWIGHT J. ADAM
20182 Linda Drive
Springfield, Louisiana 70462
504-559-6727

RICKEY MATHERNE JR.
2584 Mill Grove Lane
Marrero, Louisiana 70072
504-328-1926

RONALD SCHOUEST JR.
5012 Wisteria Drive
Marrero Louisiana 70072
504-214-5291

MATTHEW S. NEEB
1300 Nursery Place
Metairie, Louisiana 70005
Anne Neeb 504-373-5941

DAVID R. NORMANN
25 Tokalon Place
Metairie, Louisiana 70001
504-833-1264

HELEN NORMANN BOLVIG
2509 Watkins Lane
Mountain Brook, Alabama 35223
205-879-3625

FRANK S. NORMANN, JR.
430 Woodvine Ave.
Metairie, Louisiana 70005
504-834-1428

SISTER VIVIAN MARIE COULON
1404 Carmel Dr. Apt. 23 B Lafayette,
Louisiana 70501

LEE W. COULON, JR.
209 Buffalo Run
Lafayette, Louisiana 70503
337-993-9357

MELVIN B. COULON
96 Anchorage Drive
Marrero, Louisiana 70072
504-348-8880

MARION ANN COULON WONIGER
5129 Elk Meadows Court
Hamilton, Ohio 45011
513-737-1003

SHIRLEY L. MITCHEL
23984 Terrace Ave.
Denham Springs, Louisiana 70726
225-667-6759

DARRIN M. COULON
3717 Privateer Blvd.
Barataria, Louisiana 70036

JARRET POLKEY
2811 Jean Lafitte Blvd.
Lafitte, Louisiana 70067
504-689-4259

PATRICIA CREPPEL CURRY
9513 Alhambra Ct.
River Ridge, Louisiana 70123

MICHELLE MARGARET CREPPEL
208 North Taylor Street
Covington, Louisiana 70433
985-373-5985

JACQUES J. CREPPEL
7927 St. Charles Ave.
New Orleans, Louisiana 70118
504-866-0171

GLENN P. MARTINEZ
7342 Rachel St.
Marrero, Louisiana 70072
504-471-0589

ADRIAN P. ADAM
4558 Jean Lafitte Blvd.
Lafitte, Louisiana 70067

EDWARD GILBERT PERRIN
4634 Jean Lafitte Boulevard
Lafitte, Louisiana 70067
504-715-7682

PATRICIA M. CASTINE
505 Bellanger St.
Harvey, Louisiana 70058

ALVIN J. ADAM JR.
2529 Delta Pointe Drive
Marrero, Louisiana 70072
504-347-8116

MOHAMED K. YASEIN
5509 Avron Blvd.
Metairie, Louisiana 70003
504-319-1950

JEAN PERRIN CAULFIELD
5134 Texas Street
Lafitte, Louisiana 70067
504-698-2148

WESLEY ADAM
4566 Jean Lafitte Blvd. Lafitte, Louisiana
70067
504-689-3573

SHIRLEY PARRIA ROGERS
Post Office Box 371
Lafitte, Louisiana 70067
504-689-3871

PATRICIA PARRIA TOUCHARD,
4585 Jean Lafitte Blvd
Lafitte, Louisiana 70067
504-689-3520

JULES L. NUNEZ
5240 Jean Lafitte Blvd.
Lafitte, Louisiana 70067
504-689-4355

LOUIS J. PARRIA SR.
4640 Jean Lafitte Blvd.
Lafitte, Louisiana 70067
504-689-3746

LOUELLA PERRIN WIFE OF/AND
JULES L. NUNEZ
5240 Jean Lafitte Blvd. Lafitte, Louisiana
70067
504-689-4355\504-689-3391

Dredge Pipeline Corridor:

PHILLIPS 66
15551 Hwy. 23
P.O. Box 176
Belle Chasse, LA 70037
504-656-3987
Contact: Dennis Nuss

PLAQUEMINES PARISH GOVERNMENT
8056 Highway 23, Suite 307
Belle Chasse LA 70037
504-297-5629
Contact: P.J. Hahn, Director of Coastal Zone
Management

LIVAUDAIS COMPANY, LLC
4626 East St. Bernard Highway
Meraux, LA 70075
504-952-5154
Contact: Philip Livaudais

RIVER REST LLC
C/O John W. Newman
605 South America Street
Covington, LA 70433

RIVER REST LLC
C/O Mike Jeansonne
1800 Carol Sue Ave., Suite 7
Gretna, LA 70056
(504) 392-9902

The Contractor shall adhere to the following conditions, provisions, and requirements provided in the agreements the State has made with the landowners for this Work.

Specific Landowner notification requirements

- A. The following notice language is in Article II of the Plaquemines Parish Government (PPG) servitude agreement: “The STATE agrees to give reasonable notice to PPG prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.”
- B. The following notice language is in Paragraph 6 of the State Land Office, Division of Administration’s Grant of Particular Use and Right of Entry for Construction: “Pursuant to the Permits and Responsibilities clause, you are required to contact the Administrator of the State Land Office or his representative at (225) 342-4575, to notify the Office when construction will commence on the State-owned seashore, State lands and/or State water bottoms.”
- C. Contractor agrees to give reasonable notice to grantor(s) prior to initiation of access to the said lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the project.

Landowner General Provisions

- A. Article III in the agreements includes that should work on (landowner’s) lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR(s) as an additional insured on any policies carried by the contractor, including completed operations coverage.
- B. Article IV includes that the **State through its Contractor shall be responsible for repair...such repair shall be to that condition and value which existed immediately**

prior to Contractor's activities. The State through its Contractor shall remove or dispose of all debris associated with construction, operation and maintenance of the Project within three (3) days of completion.

- C. Article X includes that the **Agreements shall remain in effect for the twenty-five (25) year life of the project from** the date of signature of the State, unless sooner released by State.
- D. Article XIII in some of the agreements include that the State shall provide upon request to Grantor copies of all permits, reports, studies and analysis of all work performed by the State on the property, including all filings with and reports to any governmental authority.
- E. The Contractor shall add the landowners listed above as additional insureds. It is also agreed and understood that the Contractor will at all times indemnify and hold harmless all landowners from and against any and all claims, demands, causes of action, judgments, liabilities, and expense of every nature, including attorney's fees, by reason of personal injury, death (including but not limited to injuries to and death of employees of the landowners and the Contractor's employees), or damage to property, (including environmental) which arises out of, results from, or is in any manner related to, directly or indirectly, any operations or acts hereunder, or to the exercise of your rights hereunder, or to your presence upon or use of the landowners' premises above referred to, or to the use or existence of your facilities on such premises. The indemnity provisions of this paragraph shall not apply if any such injury, death, damage, liability claim, or cause of action is caused by the negligence of the landowners, their employees, agents, or representatives.

Additional Special Conditions in Agreements

- A. (River Rest, LLC, Wildlife Lands, LLC) Should work on said Lands be performed via contract, STATE shall ensure that all policies of insurance provided by each contractor and subcontractor pursuant to Section III of the Agreement are primary and non-contributory and shall name Grantor as an additional insured using ISO Commercial General Liability Endorsement Forms CG 20 37 07 04 and CG 20 10 07 04.
- B. (River Rest, LLC, Wildlife Lands, LLC) For purposes of the indemnity provided by the STATE pursuant to Section III of the Agreement, the term "GRANTOR" shall include not only GRANTOR, but also all managers, members, agents and representatives (collectively the "Representatives") of the entity except for actions by such Representatives that are beyond the course and scope of their duties to and/or engagement with GRANTOR or for which such Representatives have engaged in intentional or wrongful misconduct. However, nothing herein shall be construed as indemnifying or holding Grantor or any third person not a party hereto harmless against the fault or negligence of Grantor's Representatives.
- C. (LL&E) Contractor working on LL&E property shall maintain in full force, during the entire existence of this Agreement, Workman's Compensation Insurance in an amount necessary to satisfy the minimum requirements of the laws of the State of Louisiana.
- D. (Phillips 66) Notwithstanding anything to the contrary in Section II of the Temporary Easement, Servitude and Right-of-Way Agreement ("Agreement"), and to clarify the meaning of "reasonable notice" as set forth therein, the STATE, through Contractor,

agrees to notify GRANTOR on or before the seventh (7th) day preceding any entry onto said Lands for any non-emergency operations by STATE, its agents or contractors. In the event an emergency requires that STATE, its agents or contractors, to immediately enter said Lands, STATE shall make all reasonable efforts to notify GRANTOR of such entry. In either case, such notification shall include time of entry, anticipated duration on said Lands, the location or locations of operations, the type(s) and number of equipment involved and proposed routes to the location or locations of the operations. STATE, its agents or contractors, shall comply with any reasonable request of GRANTOR to alter the routes to be used from public roads to the location or locations of the operations.

- E. (Phillips 66) The term “GRANTOR” as used in Section III shall include not only Phillips 66 Company, but also all its parents and affiliates, and each of their respective employees, officers, directors, agents, representatives and contractors (collectively called the “Indemnified Parties”). To the extent permitted by Louisiana law, the State, through Contractor, shall indemnify, and hold harmless GRANTOR from damages, any and all costs, damages, causes of actions, and liabilities of any kind or nature arising from the Project to the extent caused by the acts, omission, negligence or fault of State, or Contractor, or its agents, employees, contractors, successors, assigns or transferees; however, nothing herein shall be construed as indemnifying or holding any Indemnified Party harmless to the extent that any such damages were caused in whole or in part by an Indemnified Party or by a third party not a party to this Agreement.

Pipeline Provisions

- A. The Contractor shall notify all pipeline companies at least seventy-two (72) hours in advance of any construction work. All pipelines located within one hundred fifty feet (150') of the dike alignments, marsh fill areas, borrow area, and dredge slurry pipeline corridor shall be probed and their locations marked prior to excavation and installation of the dredge slurry pipeline, for the duration of construction activities. No excavation shall be permitted within fifty feet (50') of any pipeline in the dredge slurry pipeline corridor or the marsh creation areas. No hydraulic dredging shall be permitted within five hundred feet (500') of any existing pipeline in the Mississippi River. The Naomi siphon pipes shall be probed, located, and marked prior to excavation. No excavation shall be permitted within twenty-five feet (25 ') of the edge of the siphon pipes. The dredge slurry pipeline shall be placed a minimum of twenty-five feet (25') from the edge of the siphon pipes. See TS-2.3 for utility coordination and overhead lines compliance..
- B. NOTE: Special care and extremely close coordination by the construction contractor with the pipeline companies will be crucial in order to avoid impacting the pipelines within or near the project area. Due to the extensive numbers of oil and gas lines in the area, and the limited time available to obtain landrights coverage for same, the contractor(s) will need to acquire any permission for crossings of lines outside of those that may not have been previously found/covered. It is recommended that confirmation in the field, including, but not limited to, use of a magnetometer survey/s be a requirement of the contractor/s to ensure that any lines in the area are identified and will not be impacted. Dredging over any pipeline rights-of-ways may be permitted with consent from the pipeline owner/operator. The conveyance pipeline will need to be floated over pipelines that may potentially be impacted by same. Verification of pipelines, their depths and draft of the equipment to be used will be essential. The assumption resulting from current investigations does not include oil and gas operations that might commence in the future.

- C. The construction contractor will also need to contact Louisiana One Call at (800) 272-3020 at least five (5) business days prior to construction.

Borrow Area:

Entergy
985-850-1253
Contact: Gary Hergert

Plains All American Pipeline, L.P.
1901 Engineers Road
Belle Chasse, LA 70037
504-393-6282
Contact: Rusty Cavalier

Dredge Pipeline Corridor:

Overhead lines:
Entergy Louisiana LLC
1000 Harimaw Court West
Metairie, LA 70001
504-219-4207
Contact: Joe Giammalva

Water lines:
Plaquemines Parish
8056 Highway 23, Suite 308
Belle Chasse LA 70037
504-297-5414
Contact: Gene Fox

Access Corridor:

Plains Pipeline, L.P.
(713) 646-4692
Contact: Frank Carden

Midcoast Louisiana Liquids Inc.
(337) 572-3771
Contact: Henry Leger

Enbridge Pipelines (Louisiana Interstate) Inc.
(713) 353-5609
Contact: Leonard Morrison

Marsh Fill Areas:

Shell Oil
Nairn Station
31617 Hwy 23, South
Buras, Louisiana 70041 or

1060 Destrehan Ave
Harvey, LA 70058

*Contact: Jerry Juncker 225-328-8683
*Contact: Kevin Arceneaux 985-873-3429 Office
985-790-2868 Mobile

***Both Shell representatives must be notified prior to commencing construction activities.**

SP-12 OYSTER LEASE RESTRICTIONS

There are no known existing oyster leases near or within the boundaries of the Project Site. Therefore, no oyster lease restrictions are provided for performing the Work within the boundaries of the Project Site.

SP-13 THREATENED AND ENDANGERED SPECIES

The Environmental Assessment for this project identifies Pallid Sturgeon, West Indian Manatees, Bald Eagles, and Colonial Nesting Birds as protected, threatened or endangered species which have the potential to exist within the boundaries of the Project Site. The Contractor shall review and comply with the restrictions listed below and with those in the Permit conditions regarding construction activities.

West Indian Manatee – The following precautions will be implemented for the Project:

- All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s).
- All personnel associated with the project shall be instructed about the possible presence of manatees and the need to avoid collisions with and injury to manatees. Any sighting of, collision with, or injury to a manatee shall be immediately reported to the Engineer.

The following special operating conditions shall be implemented upon the sighting of a manatee within 50 feet of the active work zone:

- All work, equipment, and vessel operation should cease if a manatee is within 50 feet of the active work area;
- All vessels shall operate at no wake/idle speeds within one hundred (100) yards of the work area; and
- Siltation barriers, if used, shall be re-secured and monitored.

Bald Eagles – Construction activities will ensure that bald eagle nest trees are not adversely affected, including their root systems through soil compaction or disturbance. If a bald eagle nest occurs or is discovered within 1,500 feet of the Project area, the Engineer should be notified and an evaluation must be performed to determine whether the Work is likely to disturb nesting bald eagles.

Pallid Sturgeon – To ensure protection of the pallid sturgeon the following actions shall be implemented to help prevent any potential project related direct or indirect effects:

- The cutterhead shall remain completely buried in the bottom material during dredging operations.
- If pumping water through the cutterhead is necessary to dislodge material or to clean the pumps or cutterhead, etc., the pumping rate shall be reduced to the lowest rate possible until the cutterhead is at mid-depth, where the pumping rate can then be increased.
- During dredging, the pumping rates shall be reduced to the slowest speed feasible while the cutterhead is descending to the channel bottom.

Colonial Nesting Birds – To minimize disturbance to colonial nesting birds:

- All activity within 1,000 feet of a rookery should be restricted to the non-nesting period (approximately September 1 through February 15 but may vary within this window depending on species present)
- If it is necessary to perform work within 1,000 feet of a known nest site during the nesting season, a migratory bird abatement plan will need to be developed in consultation with the USFWS.

SP-14 EMERGENCY CONSTRUCTION OF SALTWATER BARRIER SILL

The USACE constructs a saltwater barrier sill perpendicular to the Mississippi River along the river bottom south of the Alliance Anchorage Borrow Area as indicated on the Plans during periods of low flows when certain criteria are reached. This sill is constructed to prevent the saltwater wedge from propagating farther upriver and to protect water supplies. While this project is ongoing, the USACE may issue a contract to build the sill. The Contractor may bid on this sill contract if a solicitation is issued. If selected to construct the sill, the Owner will release the Contractor for the time required to build the sill. There shall be no additional cost to the Owner. If the Contractor chooses not to bid on the sill contract or another contractor is awarded the sill contract, the Contractor shall be required to suspend dredging operations and move off site so as not to interfere with or delay the USACE or sill contractor's work.

The Contractor shall include in the dredging plan for approval by the Engineer and USACE an area reserved for the sill in the Alliance Anchorage Borrow Area in accordance with the conditions outlined in the permit.

SP-15 WORK AREA AND TEMPORARY FENCING

The construction and borrow area limits available to the Contractor for accomplishing the work are shown in the Plans. The Contractor shall accomplish the Work in such a manner so as to minimize disruption to boat traffic and roadway traffic. The Contractor will be required to exclude the public, for safety purposes, from the work areas in the immediate vicinity of the hydraulic fill placement, grading and transporting operations, or any other area, which may be dangerous to the public. The storage areas shall be kept neat, orderly and in a safe manner. Temporary fencing and cautionary signage shall be used by the Contractor, if necessary, to exclude the public from work areas and storage areas.

SP-16 NO WORK ZONE

The area Northwest of the project area and East of Bayou Dupont shall be designated a no work zone due to the presence of cultural resources. The area can be seen on Sheet 14 in the plans. No equipment access from either the bayou side or the project side is allowed.

SP-17 FINAL CLEAN-UP

Final clean-up shall include the removal of the Contractor's plant and all equipment or materials either for disposal or reuse. The Contractor shall remove all non-perishable debris, trash, and garbage from the site of work prior to final acceptance. Plant and/or equipment or materials to be disposed of shall only be disposed of in a manner and at locations approved by the Engineer. Unless otherwise approved in writing by the Engineer, the Contractor is not permitted to abandon pipelines, cables, pipeline supports, pontoons, or other equipment or materials in the disposal area, pipeline access areas, water areas, underwater in the Mississippi River, Bayou Dupont, or in any canals, passes, or inlets, or other areas adjacent to the Work site. Any stakes or other markers placed by the Contractor must be removed as a part of the final clean-up. All stakes, including grade stakes, placed during the fill for the Marsh Creation operation shall be completely removed and shall not be left buried in the fill. Upon completion of the final clean-up (ie. removal of all stakes, debris, and equipment), the Work area shall be redressed to eliminate any undrained pockets, ridges, and depressions in the hydraulic fill surfaces prior to final acceptance; the contractor shall use a dragged pipe for this task.

END OF PART II – SPECIAL PROVISIONS

PART III TECHNICAL SPECIFICATIONS

TS-1 MOBILIZATION AND DEMOBILIZATION

1.1 Description

The Contractor shall provide all labor and equipment necessary to move personnel, equipment, construction materials, and incidentals to and from the Project Site. This shall include but is not limited to establishing offices, buildings, and other facilities necessary for the Work. As part of this Bid Item, the Contractor shall obtain bonds, required insurance, and include any other pre-construction expenses necessary to perform the Work. This section shall exclude the cost of construction materials listed in the Schedule of Bid Items. All costs associated with the dredge pipeline permanent access corridor and the dredge pipeline crossings shall be included in Bid Item No. 1 "Mobilization and Demobilization".

1.2 Arbitrary Mobilization by Contractor

The Owner shall pay for only one mobilization and demobilization effort. Should the Contractor demobilize prior to completing the Work, subsequent remobilization shall be performed at no cost to the Owner.

1.3 Ratio of Mobilization and Demobilization Effort

Forty percent (40%) of the mobilization/demobilization lump sum price will be paid to the Contractor upon completion of his mobilization to the BA-48 Marsh Creation Area of the Project Site (STA 400+00). Twenty percent (20%) of the mobilization/demobilization lump sum price will be paid to the Contractor upon completion of his mobilization to the remainder of the Project Site ending at the Barataria Waterway (STA 570+22). The remaining forty percent (40%) will be paid to the Contractor upon final acceptance of the Work and removal of all equipment and unused materials.

1.4 Justification of Mobilization Costs

In the event the unit price does not bear a reasonable relation to the amount of work for mobilization and demobilization in the Contract, the Engineer may require the Contractor to produce cost data to justify the unit cost in the Bid. Failure to justify such cost to the satisfaction of the Engineer will result in payment of actual mobilization costs, as determined by the Engineer at the completion of mobilization, actual demobilization cost at the completion of the demobilization, and payment of the remainder of this item in the final payment under this contract. The determination of the Engineer is not subject to appeal.

1.5 Measurement and Payment

Payment for mobilization and demobilization shall be paid for at the contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization". Payment shall constitute full compensation for moving personnel, equipment, supplies, and incidentals to and from the job site and establishing offices, buildings, and other facilities for the work, obtaining bonds, insurance, permit application fees, and any other associated expenses.

TS-2 DREDGE PIPELINE AND PERMANENT ACCESS CORRIDOR

2.1 Construction Limits

All construction equipment must be located within the construction limits shown on the Plans. The construction limits of the proposed dredge pipeline corridor shall be no greater than one hundred feet (100') in width along the north-south drainage canal and West Ravenna Road as shown on the Plans. All Work must take place within the construction limits. All access corridors and equipment staging areas shall be described in the Work Plan and approved by the Engineer prior to construction and mobilization. No construction activities shall take place south of the drainage canal located south of West Ravenna Road. No construction activities shall be conducted east of the north-south drainage canal, which is located east of the proposed dredge pipeline corridor. All access corridors and construction limits shall be returned to pre-construction conditions prior to demobilization.

2.2 Equipment and Construction Access

Access to the Mississippi River borrow areas is only available through use of a boat through Federal and State authorized water bottoms. The Contractor may be required to place a temporary marine access dock to facilitate equipment access to the Mississippi River for the duration of construction activities. Proposed temporary marine access dock shall be included in the Work Plan for approval by the Engineer prior to construction and placed within the construction limits. All costs associated with the temporary marine access dock shall be included in Bid Item No. 1, "Mobilization and Demobilization".

The equipment access route shown on the Plans may be used during construction to temporarily transport construction equipment, materials, and labor to the marsh creation area and shall meet the landowner requirements specified in the land rights memorandum in Appendix C. The pipeline used for marsh creation shall be placed within the proposed dredge pipeline corridor and within the construction limits shown on the Plans. The Contractor's proposed equipment access route and dredge pipeline location shall be submitted in the Work Plan for approval prior to mobilization. The Contractor shall submit all equipment and staging areas to be used in the Work Plan for approval prior to mobilization.

Dredge pipelines, marsh buggies, and marsh creation construction equipment shall enter the marsh fill area via state water bottoms or the equipment access road shown on the Plans. Existing drainage shall not be impeded due to the placement of the pipeline or any construction equipment. This includes the canal south of West Ravenna Road and the flood protection levee canal. Travel across marsh vegetation outside the designated construction fill area and access routes will not be allowed. Tracked equipment may only cross the 20" Shell oil pipeline at the point specified on Plan Sheet 4. Additional information regarding repair of areas damaged from the land-based equipment can be found in TS-7.

2.3 Overhead Utilities Compliance

Construction activities will take place near Entergy power lines and precautions shall be taken to avoid impeding regular operations. It is understood and agreed that the wires supported by structures on the Entergy right of way are conductors of, and at all times have in them, high voltage electricity. No person, or object in contact with a person, may touch or be near to said wires or other fixtures on said structures, because to do so or to permit such would be dangerous to the life of the party so doing, as well as anyone else in the area where such occurred. The Contractor agrees to inform each and every individual of such facts before such party enters upon any part of the easement area shown on Plans during the time such work is being prepared, done or completed, or any equipment moved to, upon or from said property and Entergy shall be indemnified by the Contractor from any injury or death resulting there from in accordance with the terms of the indemnity agreement set forth in the land rights memorandum. The area within Entergy's right of way is to be used only for the purposes disclosed to Entergy, and no buildings or components of buildings are to be located or protruding into the right-of-way. Any work performed in this area must be done in accordance with all NESC (National Electric Safety Code) requirements concerning clearances from energized facilities, grounding of any installations and any other applicable code requirements. All OSHA regulations must be met and maintained during the construction, operation, and maintenance of all facilities within the right-of-way. It is also agreed and understood that Contractor will at all times indemnify and hold harmless Entergy from and against any and all claims, demands, causes of action, judgments, liabilities, and expense of every nature, including attorney's fees, by reason of personal injury, death (including but not limited to injuries and death to employees of Entergy and Contractor's employees) or damage to property, (including environmental) which arises out of, results from, or is in any manner related to, directly or indirectly, any operations or acts hereunder, or to the exercise of the Contractor's rights hereunder, or to the Contractor's presence upon or use of Entergy premises above referred to, or to the use or existence of the Contractor's facilities on such premises. The indemnity provisions of this paragraph shall not apply if any such injury, death, damage, liability claim or cause of action is caused by the sole negligence of Entergy, its employees, agents, or representatives. All equipment used on the property shall have a maximum height not to exceed NESC clearances allowed, or shall be provided with guard chains limiting moveable parts of the equipment to that maximum height. No fencing, tents, jack-up lighting, or light poles of any kind are permitted inside Entergy's right-of-way at any time. Entergy will have full access and use of the right-of-way at all times for any work projects or maintenance and shall not be responsible for any damage to the proposed pipeline crossing Entergy's right of way. Entergy must approve any additional improvements

to the right-of-way area. Upon termination of the use of the Entergy Right-of-Way, Contractor shall return the property to as near as practical to its pre-use condition.

2.4 Dredge Pipeline Corridor

2.4.1 Naomi Siphon to North-South Drainage Canal (STA 0+00 to 20+00)

The dredge pipeline from the Mississippi River shall be placed along the dredge pipeline corridor near the Naomi Siphon as shown on the Plans. The east-west section of the dredge pipeline corridor near the Naomi siphon is owned by the Plaquemines Parish Government. The Naomi siphon pipes shall be probed, located, and marked prior to excavation and placement of equipment. No excavation shall be permitted within twenty-five feet (25') of the edge of the siphon pipes. The dredge pipeline shall be placed a minimum of twenty-five feet (25') from the edge of the siphon pipes. Any alternate dredge pipeline placement methods shall be included in the Work Plan for approval by the Engineer. The Contractor shall install and maintain safety netting around all open cut excavations during construction to ensure public safety. The existing fence near the LA 23 crossing may be removed temporarily to facilitate the installation of the dredge pipeline and shall be arranged to prevent the loss of cattle. The fence shall be reconstructed to pre-project conditions prior to demobilization. The dredge pipeline shall then be placed westward across the north-south drainage canal.

2.4.2 North-South Section: Dry Land (STA 20+00 to 140+00)

The north-south section of the dredge pipeline corridor consists of an existing dirt road. The dredge pipeline shall be placed on the eastern side of the dirt road adjacent to the north-south field drainage canal as shown on the Plans. Field drainage shall not be impeded due to pipeline placement.

2.4.3 West Ravenna Road/Marsh Creation Area East-West Section (STA 140+00 to 349+27.88)

The east-west section of the dredge pipeline corridor is located along West Ravenna Road and through the recently constructed marsh creation project. The dredge pipeline shall be placed on the south side of West Ravenna Road and shall not impede daily traffic. The dredge pipeline shall cross the Plaquemines Parish flood protection levee and enter the adjacent marsh at the location shown on Plan Sheet 12. It shall continue through the recently constructed marsh creation area over the canal with the bridge crossing until it reaches the end of Reach 1 as indicated on Plan Sheet 13. The proposed location of the dredge pipeline and any proposed pipeline crossings shall be included in the Work Plan for approval prior to mobilization.

In the event that the USACE is constructing the New Orleans to Venice, LA Hurricane Protection (NOV) Levee Project during the Work, the Contractor may be required to move the dredge pipeline in the region up to three (3) times to accommodate the USACE. The Contractor shall coordinate the Flood Protection Levee dredge pipeline crossing with the USACE New Orleans to Venice Non-Federal Levee Project, and shall contact the USACE Vicksburg District at (601) 631-5410 for project construction status information. The Contractor shall work

cooperatively with the USACE during construction of the NOV Levee Project. Additional costs for the Work pertaining to the coordination of the Flood Protection Levee dredge pipeline crossing and the construction of the USACE New Orleans to Venice Non-Federal Levee Project, shall be included in Bid Item No. 1 - "Mobilization and Demobilization".

2.4.4 Reach 2 to Bayou Dupont (STA 349+27.88 to 388+08.74)

The pipeline corridor will be located upon the placed fill following the alignment of the Chenier Traverse Bayou as shown in Plan Sheets 13 and 14 until reaching Bayou Dupont. The pipeline will cross submerged through Bayou Dupont and reemerge south on the BA-48 marsh creation project.

2.4.5 Reach 3 Crossing BA-48 (STA 392+97.96 to 410+90.02)

The pipeline crosses over the BA-48 marsh creation at grade. The pipeline extends into the marsh creation area along Bayou Dupont for construction of the BA-48 Marsh and Ridge.

2.4.6 Reach 4 South to the Fish Camp (STA 410+90.02 to 468+07.02)

Continuing south of BA-48 the pipeline is placed on the fill corridor as shown in Plan Sheets 14 and 16. The pipeline will be extended from this region off the main corridor to create the additional marsh fill area.

2.4.7 Reach 5 Fish Camp to Southern End (STA 468+07.02 to 511+87.23)

At the Fish Camp the pipeline turns west slightly before heading south as shown on Plan Sheets 16 and 17.

2.4.8 Reach 6 West to Barataria Waterway (STA 511+87.23 to 570+22.00)

The pipeline heads west to the Barataria Waterway where the project terminates as shown on Plan Sheet 17.

2.4.9 Measurement and Payment

All costs for installation of the dredge pipeline and pipeline crossings, and for maintaining the dredge pipeline corridor and materials, shall be included in Bid Item No. 1, "Mobilization and Demobilization". These costs include but are not limited to fencing, excavation, crushed aggregate placement, timber placement, temporary or permanent pipeline warning signs, navigation aides, and pipeline markers.

2.5 Dredge Pipeline Crossings

2.5.1 Scope of Work

This Work consists of furnishing and assembling the materials needed to construct dredge pipeline crossings in accordance with these Specifications and the project Plans. The pipeline crossings shall be constructed to protect and maintain the Mississippi River and Flood Protection levees, and provide access for levee maintenance, landowners, and stakeholders. Typical sections for the dredge pipeline crossings are shown on the Plans. LA 23 and

the New Orleans and Gulf Coast Railroad crossings criteria are specified in TS 2.7.

2.5.2 Materials

Dredge pipeline levee crossings shall be constructed using crushed aggregate, timbers, and all other materials necessary in accordance with the Plans. The crushed aggregate shall conform to the Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 1003.04 (a). Timbers shall be treated, 6"x6"x4', or other approved equal.

2.5.3 Mississippi River and Flood Protection Levee Crossings

The Mississippi River and Flood Protection levee roads must be crossed at the locations shown on the Plans. Typical sections are shown on the Plans. Temporary crossings shall be built to facilitate the crossing of a truck, tractor, or maintenance vehicle. Crossings shall be covered with a minimum one foot (1') layer of crushed aggregate on 1(V):20(H) slopes. **No excavation shall be permitted within one hundred feet (100') from the toe of the Mississippi River and Flood Protection levees.** The pipeline shall be placed onto 6"x6"x4' treated timbers spaced 5 feet apart. Temporary pipeline markers shall be placed and maintained during construction at the toe of each levee in line with the pipe crossing indicating owner, size, number of lines, contents, and the address for contacting owner as shown in the Plans. No Construction shall be allowed on the Mississippi River levee, or the Flood Protection levee without prior approval of the Engineer.

2.5.4 Existing Gates

Two existing cattle gates must be crossed at the locations shown on the Plans. Work conducted near existing cattle gates shall not affect daily cattle operations. Gates may be opened to place the dredge pipeline. Temporary barriers shall be constructed to retain cattle. The Contractor shall submit a proposed cattle gate crossing detail in the Work Plan prior to mobilization.

2.5.5 Canal Crossing

The dredge pipeline shall cross the north-south drainage canal at the location shown on the Plans. Canal flow shall not be impeded by the dredge pipeline. The Contractor shall submit a proposed temporary canal crossing detail in the Work Plan prior to mobilization.

2.5.6 Cattle Crossings

Four (4) temporary gravel and/or earthen ramps are required to facilitate cattle crossings. Proposed drawings and any additional proposed locations shall be included in the Work Plan prior to construction. Cattle crossing details are provided on the Plans.

2.5.7 Gravel Road and Driveway Crossings

Gravel roads and driveways shall be crossed at the locations shown on the Plans. The typical crossing shown on Plan Sheet 42 may be modified to provide access for landowners for gravel roads and/or driveways. Existing roads and/or driveways may be excavated to facilitate the placement of the dredge pipeline and shall be backfilled prior to demobilization. All gravel road and driveway crossings shall be sufficient to accommodate vehicle traffic during construction. The West Ravenna Road crossing shall be sufficient to accommodate tandem axle vehicles. All gravel road and driveway crossings shall be restored to pre-project conditions prior to demobilization. Typical crossing plans shall be submitted in the Work Plan prior to mobilization. The dredge pipeline shall be placed along the south side of West Ravenna Road, and at no time shall construction activities hinder the flow of daily traffic along this road.

There shall be no excavation within fifty feet (50') of any oil or gas pipeline crossing the proposed dredge pipeline corridor as shown on the Plans.

2.5.8 Measurement and Payment

All costs incurred by the contractor for the placement, maintenance, and removal of the dredge pipeline crossings shall be included in Bid Item No. 1, "Mobilization and Demobilization".

2.6 Existing Casing Pipe Crossings

2.6.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to place temporary dredge pipeline in the two (2) existing 48" diameter steel casing pipes underneath LA 23 and the New Orleans and Gulf Coast Railroad in conformity to the locations, lines, and grades provided on the Plans and in these Specifications. Typical sections for the casing pipe crossings are shown on Plan Sheet 30. The highway and railroad crossing locations are shown on the Plans. The Contractor shall notify highway and railroad representatives prior to construction and after work is complete. Contact information for these representatives is as follows:

Glenn Richard
LADOTD District Permit Specialist
504-437-3130

Johnny Hydes
Rio Grand Pacific Corporation
504-458-1075

2.6.2 Materials

Permanent pipeline markers shall be placed on each side of the highway and railroad as shown on the Plans to mark the crossing locations. Markers shall be placed subsequent to backfilling the excavation pits, prior to demobilization. The pipeline marker signs shall be made in accordance with LADOTD Standard Specification 729. A proposed drawing of the permanent markers as shown on the Plans and shall be included in the Work Plan for approval by the Engineer.

2.6.3 Railroad Notification

The Contractor shall provide notification to the New Orleans and Gulf Railway Company (Rio Grande Pacific) prior to beginning work. Any modifications within the Right of Way of the Railroad may require a permit.

2.6.4 Installation

Pits shall be excavated for dredge installation and dredging operations as shown on the Plans or as necessary. When cut, the area shall be securely sheeted and braced to maintain stability of the excavations. Braced excavation requirements are provided in Appendix L. A steel sheetpile or bracing system shall be used for excavations of greater depth than four feet (4') and shall be designed and stamped by a professional engineer. Disturbed areas shall be seeded or protected from erosion. The installation pit locations shown on the plans are based on the proposed dredge pipeline corridor alignment shown on the Plans. The Contractor's dredge pipeline corridor shall be submitted in the Work Plan and shall meet all railroad requirements. Pumps shall be used to dewater excavation pits and maintain a dry bottom. If operations necessitate the removal of nearby fences, a temporary structure shall be constructed to maintain landowner/lessee operations. Fences shall be reconstructed prior to Demobilization, and the area shall be restored to pre-project conditions. The temporary dredge pipeline installation plan shall be included in the Work Plan and submitted to the Engineer prior to mobilization.

The existing 10" and 20" water lines and 4" unknown line adjacent to LA 23 shall be probed, located, and marked prior to construction and excavation. If the existing water lines or utility lines are damaged during construction, the lines shall be repaired immediately to pre-project conditions at no cost to the Owner.

The Contractor shall not impede or disrupt the integrity and/or the operations of the Rio Grande Pacific New Orleans and Gulf Coast Railway and LA 23 travel lanes. Barricades and lights shall be installed for the protection of

traffic and pedestrians as directed by the Engineer, the Rio Grande Pacific New Orleans and Gulf Coast Railway Company, and LADOTD.

The existing casing pipes shall be used to facilitate the temporary placement of the dredge pipeline. Prior to demobilization, the casing pipes shall be filled with water and capped, excavation pits shall be backfilled, and the dredge pipeline corridor shall be restored to pre-construction conditions.

2.6.5 Casing Pipe Caps

After the marsh fill has been accepted and the dredge pipeline has been removed from the casing pipes, each end of each casing pipe shall be capped as shown on the Plans. Caps shall be welded to the casing pipe and shall be water tight. Steel casing pipe caps shall be included in Bid Item No. 1 “Mobilization/Demobilization”. The price per casing pipe cap shall include all materials, labor, tools, equipment, and incidentals required to install the casing pipe caps as shown on the plans.

2.6.6 Measurement and Payment

Payment for the installation of the temporary dredge pipeline and associated features shall be made as Bid Item No. 1 “Mobilization and Demobilization”. The price shall include, but is not limited to, all materials, labor, tools, equipment, and incidentals and include the required excavation for dredge pipeline placement, sheeting, bracing, false work, grouting, backfilling, restoration of area to original conditions, and clean-up.

Secondary monument BA03C-SM-01 is located near the LA 23 crossing. If this monument is disturbed or damaged during construction activities, the monument shall be replaced to LDNR standards at no cost to the Owner.

TS-3 CONSTRUCTION SURVEYS

3.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to perform Pre-Construction, Process, and As-Built Surveys at the locations shown in the Plans and as outlined in these Specifications. **Pre-construction surveys** are those required to be conducted prior to the commencement of Work. A Pre-Construction survey shall be performed to serve as a baseline for fill quantities. **Process surveys** are conducted during construction for quality control, partial payment, and acceptance. **As-Built surveys** are post construction surveys to be performed after the completion of all Work.

Secondary monuments BA23-SM-02, BA03C-SM-01, BA03C-SM-02, and BA41-SM-01 are part of LDNR's Secondary GPS Network and shall be used for horizontal and vertical control. The data sheets for the secondary monuments are included in Appendix D. Process and acceptance surveys shall be under the supervision of a Professional Licensed Surveyor and approved by the Engineer. All other surveys shall be performed by personnel who are approved by the Engineer and under the direct supervision of a professional land surveyor licensed in the state of Louisiana. These survey drawings shall be signed and sealed by the surveyor. Survey data shall reference the North American Datum of 1983 (NAD 83), Louisiana South Zone, U.S. Survey Foot for horizontal control, and the North American Vertical Datum of 1988 (NAVD 88), U.S. Survey Foot for vertical control.

The survey baseline and transects, perpendicular to the baseline as shown in the Plans, were established during engineering and design. Transects shall be parallel to the baseline, as shown in the Plans. All marsh fill area surveys shall use the same transect coordinates. Design survey information shall be provided at the Pre-construction Conference.

3.2 Accuracy and Methodology

All surveys shall be conducted using the 5 cm accuracy standard. The Contractor shall use Digital Leveling Instruments, Real Time Kinematic (RTK) and Global Positioning System (GPS) receivers, and software necessary to achieve the required survey accuracy. A six inch (6") metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking past the bottom. Additional details regarding the accuracy and methodology may be provided during the Pre-Construction Conference as necessary.

3.3 Pre-Construction Survey

The baseline and transects shown on the plans shall be surveyed and staked by the Contractor after the Pre-Construction Conference and prior to construction. This survey shall be used to verify the alignment of the various project features, determine fill volumes, quantities, and make modifications or adjustments as deemed necessary by the Engineer. Drawings of the plan views, cross sections, and calculations of projected quantities of materials shall be developed from this survey by the Contractor

and submitted to the Engineer for review. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum.

3.3.1 Temporary Bench Marks (TBMs)

The Contractor shall also install additional TBMs as necessary to perform the survey. Horizontal and vertical coordinates shall be determined for all TBMs installed. The Contractor shall maintain the TBMs for the duration of the Work. In the event that a single TBM is disturbed and/or destroyed, the TBM may be reinstalled by approved personnel at the expense of the Contractor. If multiple TBMs are destroyed, the Engineer may require the TBMs to be reinstalled by a Professional Surveyor licensed in the State of Louisiana.

3.3.2 Baseline

The baselines shall be surveyed and staked at all points of inflection and transect intersections as shown on the Plans. The baseline shall be shown on the plan view drawings.

3.3.3 Earthen Containment Dikes and Earthen Ridges

The alignment of all earthen containment dikes and earthen ridges within the fill area shall be surveyed at 100 ft intervals along the centerline and staked at a minimum of 400 ft intervals along the entire length of proposed containment dikes. The elevation and coordinates at each stake shall be recorded.

3.3.4 Marsh Creation Area

Elevations shall be surveyed and recorded at points every fifty feet (50') along each transect line, and shall extend two hundred feet (200') beyond the toe of the marsh fill containment dike alignment and/or the marsh fill area extents shown on the Plans. The transects for the marsh creation areas shall be surveyed and staked at four hundred foot (400') intervals in grid format as shown on the Plans.

The Contractor shall develop drawings which show the cross sections and plan views. Elevations, coordinates, lines, and grades for the fill area shall be shown on the drawings. The Contractor shall also determine the projected quantities of marsh fill material and containment. The projected marsh fill quantities shall be calculated using a method that is approved by the Engineer, such as the average end area method or AutoCAD. The projected quantities of marsh fill material shall be calculated in cubic yards, and the containment dike quantities shall be calculated per linear foot.

3.3.5 Borrow Area(s)

The borrow area pre-construction survey transects shall be spaced five hundred feet (500') apart, perpendicular to the borrow area center line, and extend five hundred feet (500') past the limit of the cut unless otherwise shown on the Plans. A multibeam pre-construction survey shall be conducted of the borrow area. The pre-construction borrow area survey must be submitted to and approved by the Engineer prior to beginning excavation or dredging.

3.3.6 Settlement Plate

The elevation of the top of the settlement plates and the fill material shall be recorded and reported to the nearest tenth of a foot (0.1') NAVD 88 upon installation along with the corresponding date.

3.3.7 Magnetometer Survey

A magnetometer survey has been performed in preparation for this project in an effort to verify locations and depths of pipelines and other underwater obstructions in the borrow area and marsh creation areas. See Appendix E for all borrow area geophysical survey information.

A magnetometer survey shall be performed in the borrow areas, the marsh creation areas, access channel, and all areas of excavation prior to excavation and dredging to verify pipeline locations and depths and other underwater obstructions. Magnetometer track lines should be run along the centerline alignment of the proposed earthen containment dike and earthen ridge borrow pit locations. Additional magnetometer lines should be run perpendicular to the earthen containment dike and earthen ridge locations. These track lines should begin at the outer edge of the containment dike or earthen ridge and extend twenty-five feet (25') past the containment dike or earthen ridge borrow pit and shall be spaced a maximum of two hundred fifty feet (250') apart.

Magnetometer track lines in the Mississippi River borrow area(s) should form a grid pattern with a maximum offset of five hundred feet (500') apart, and should be oriented north-south and east-west. A magnetometer survey must be performed at all locations along the dredge pipeline corridor where excavation will take place to accommodate the dredge pipeline. Magnetometer surveys shall be provided to the Engineer prior to excavation and dredging. This does not relieve the Contractor of responsibilities set forth in GP-25.

3.3.8 Pipeline Locations

All pipelines located within one hundred fifty feet (150') of the earthen containment dike alignments, earthen ridge alignments, marsh fill areas, borrow area(s), access channel, and dredge pipeline corridor shall be probed for depth and their locations marked prior to excavation, dredging, and installation of the dredge pipeline, for the duration of construction activities. No hydraulic dredging may take place within five hundred feet (500') of any existing pipeline in the Mississippi River.

3.4 Process Survey

The baseline and transects used for the Pre-Construction survey and shown on the Plans shall be used for the Process Survey. This survey shall be used for payment of the marsh fill volumes, payment of the earthen containment dikes, earthen ridge and to make modifications or adjustments as deemed necessary by the Engineer. Drawings of the plan views and cross sections and calculations of quantities of materials shall be developed from this survey by the Contractor and submitted to the Engineer for review and payment. The quantities of marsh fill material shall be calculated in cubic yards, and the earthen containment dike and earthen ridge quantities shall be calculated per linear foot. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum.

3.4.1 Earthen Containment Dikes

After the containment dikes have been constructed, the centerline of the containment dikes shall be surveyed a minimum of every one hundred feet (100') with cross sections surveyed a minimum of every four hundred feet (400'). The cross sections shall be surveyed every five feet (5') and at major points of inflection or grade change. The elevation and coordinates shall be recorded and used to create plan views and cross sections of the earthen containment dikes to ensure that the dikes have been constructed to the dimensions shown on the plans and as per TS 4.5.

3.4.2 Earthen Ridges

After the earthen ridges have been constructed, the centerline of the earthen ridges shall be surveyed a minimum of every one hundred feet (100') with cross sections surveyed a minimum of every four hundred feet (400'). The cross sections shall be surveyed every five feet (5') and at major points of inflection or grade change. The elevation and coordinates shall be recorded and used to create plan views and cross sections of the earthen ridges to ensure that the earthen ridges have been constructed to the dimensions shown on the Plans and as per TS 5.5.

Completed earthen ridges will be inspected after the target elevation has been reached to allow for initial settlement. These inspections will occur 21 days after initial section has been constructed and 21 days after final section with relocated material has been constructed as shown in the Plans. Earthen ridges will be inspected for elevation and width. If the earthen ridges meet the lines and grades specified, they will be accepted. If the inspected ridge has undergone settlement greater than 6.0", the Engineer shall determine if an additional lift of dredge material is needed. Earthen ridges that have received an additional lift of dredge material will be re-inspected 14 days after receiving the additional lift. If the ridges meet the lines and grades specified, they will be accepted.

3.4.3 Marsh Creation Areas

Transects shall be surveyed at points every fifty feet (50') along each transect line. The marsh creation area shall be surveyed monthly, or as directed by the Engineer, at all survey transects shown on the Plans as well as all points of inflection. The Engineer shall evaluate the process surveys to determine if

the fill lift is to be accepted or modified as per TS-7.12. The Contractor shall perform additional survey transects in marsh fill areas as deemed necessary by the Engineer. Those portions of dredge fill which are modified must also be resurveyed. Plan views and cross sections shall be used for the calculation of the marsh fill volume. The marsh fill quantities shall be calculated using a method that is approved by the Engineer, such as the average end area method or AutoCAD.

Process surveys for acceptance shall consist of transects spaced 400' apart in grid format and/or at locations directed by the Engineer and shall be stamped by a Professional Licensed Surveyor. The volume of each cell shall be calculated using the average end area method in both directions. The two volumes shall be averaged to yield the volume of the cell. The quantities of marsh fill material shall be calculated in cubic yards.

Process surveys to be used for payment shall include x,y,z data representing the intersection of the dredged fill material with the earthen containment dike or existing feature used as containment. Points shall be taken at transect and containment dike profile locations around the boundary of the marsh creation area where the pumped material meets the earthen containment dike or marsh fill area boundary and at any change in direction of marsh creation area boundary. These points shall be coded "MLN" and submitted in x,y,z format.

3.4.4 Borrow Area

The location of the dredge cutter head shall be known at all times during dredging operations as per TS-7.3. Progress surveys shall be taken of the borrow area(s) every 30 days during dredging. Survey transects shall be spaced five hundred feet (500') apart, perpendicular to the borrow area center line, and extend five hundred feet (500') past the limit of the cut unless otherwise shown on the Plans. A multibeam survey shall be conducted of the borrow area(s) once half of the marsh fill material has been placed.

3.4.5 Settlement Plates

The elevation of the top of the settlement plates and the fill material shall be recorded along with the corresponding date and reported to the nearest tenth of a foot (0.1') NAVD 88 weekly until final acceptance. This information shall be provided to the Engineer weekly.

3.5 As-Built Surveys

The marsh creation areas, earthen containment dikes, earthen ridges, borrow area(s), and settlement plates shall be resurveyed by the Contractor after construction is complete. Final payment will not be received until the As-Built Survey and Work have been accepted by the Engineer. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum.

3.5.1 Earthen Containment Dikes

The As-Built Survey shall incorporate the cross sections and plan views from the Pre-Construction Surveys (at same locations) for all earthen containment dikes.

3.5.2 Earthen Ridges

The As-Built Survey shall incorporate the cross sections and plan views from the Pre-Construction Surveys (at same locations) for all earthen ridges.

3.5.3 Marsh Creation Areas

The As-Built Survey shall incorporate the approved and accepted process surveys for all of the marsh fill areas. The Contractor shall develop drawings, which include the cross sections, plan views, elevations, quantities, and volumes from the process surveys. The dates, elevations, and volumes for each process survey shall be superimposed onto the corresponding marsh fill areas on the plan views.

3.5.4 Borrow Area

Borrow area As-Built Survey transects shall be spaced five hundred feet (500') apart, perpendicular to the borrow area center line, and extend five hundred feet (500') past the limit of the cut unless otherwise shown on the Plans. A multibeam survey of the borrow area shall be conducted at the conclusion of dredging activities.

3.5.5 Settlement Plates

As-Built Survey shall incorporate the data from the process surveys for the settlement plates. The final settlement plate elevation shall be listed on the As-Built drawings.

3.5.6 Access Channel

The access channel shall be surveyed after the completion of the Work and backfilling of the channel has occurred.

3.6 Deliverables

The Pre-Construction, Process, and As-Built Surveys shall be stamped by a professional land surveyor licensed in the state of Louisiana. The Contractor shall provide the details for the survey layout in the Work Plan.

The pre-construction survey drawings and projected material quantities shall be submitted to the Engineer for review prior to excavation. Three copies shall be provided on 11"x17" paper and one digital copy provided in AutoCAD.

The Process Survey drawings, in-place material quantities, and supporting calculations shall be submitted to the Engineer for review immediately after they are completed in order to receive acceptance and payment. One digital copy shall be provided in AutoCAD.

The As-Built Survey and in-place material quantities shall be submitted to the Engineer by the date provided in SP-3 in order to receive acceptance and final payment. Three copies shall be provided on 11"x17" paper and two digital copies provided in AutoCAD. The survey shall incorporate all field changes, change orders, and quantities of materials placed. All revisions shall be shown in red and be easily distinguishable from the original design.

Point files of the Pre-Construction, Process, and As-Built Surveys shall be included in the digital copies, organized by transect, and shall contain the following information:

- 3.6.1 Point number;
- 3.6.2 Northing (NAD 83 U.S. ft.);
- 3.6.3 Easting (NAD 83 U.S. ft.);
- 3.6.4 Elevation of the top of soil (NAVD 88 ft.);
- 3.6.5 Elevation of the water level (if applicable) (NAVD 88 ft.);
- 3.6.6 Description.

3.7 Measurement and Payment

Payment for Surveys shall be made at contract lump sum price for Bid Item No. 2, "Construction Surveys". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment to perform the Pre-Construction, Process, and As-Built Surveys specified herein.

The Contractor may request partial payments for Construction Surveys. Forty percent (40%) of the lump sum cost will be paid following the completion of the Pre-Construction Surveys. Fifteen percent (15%) of the of the lump sum cost will be paid following the completion of the Process Surveys for the BA-48 Marsh and Ridge Creation. Fifteen percent (15%) of the lump sum cost will be paid following the completion of the Process Surveys for the LDSP Marsh Creation and Corridor. Thirty percent (30%) of the lump sum cost will be upon submission of the As-Built Surveys.

TS-4 EARTHEN CONTAINMENT DIKES

4.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct and maintain the earthen containment dikes in accordance with the Specifications and in conformity to the lines, grades, elevations, and tolerances shown on the Plans. The containment dikes shall be maintained by the Contractor to the greatest extent possible until the marsh fill area has been accepted and completed according to the Plans and these Specifications.

4.2 Materials and Construction

The boundaries of the earthen containment dikes are depicted on the Plans. Earthen containment dikes shall be erected to the lines, grades, and elevations specified in the drawings as necessary to facilitate the placement of marsh fill material. The earthen containment dikes shall be constructed using in-situ material from the marsh creation area and borrow pits shall be re-filled during dredging. The earthen containment dikes shall be constructed to the lines, grades, and elevations specified in the Plans to the greatest extent possible, as directed by the Engineer. Degradation of earthen containment dikes shall be required upon completion of the project to achieve a consistent marsh creation platform as directed by the Engineer. See section TS 4.6 Degradation of Earthen Containment Dikes for additional details.

4.3 Landowner Requirements

The Contractor shall submit an earthen containment dike construction and maintenance plan in the Work Plan. The Contractor shall take all precautions necessary to prevent effluent from flowing into adjacent properties and onto areas outside the construction limits. Therefore, the Contractor may be required to construct, temporarily degrade, or gap earthen containment dikes to better control effluent discharge, if effluent discharge problems persist during construction. Additional details on effluent control can be found in TS-7.8 Dewatering.

4.4 Access

All equipment for earthen containment dike construction shall access the project area via state water bottoms. Access to the internal areas shall be through open water to the extent possible. Proposed access routes for equipment used to facilitate the construction of the earthen containment dikes shall be submitted in the Work Plan for approval. Any access route that requires travel across existing marsh must first be approved by the Engineer or the Resident Project Representative. Additional details for construction access are described in TS-2 Dredge Pipeline Corridor.

4.5 Tolerance

Construction of the earthen containment dikes shall be as close to the elevations and areas shown on the drawings as possible, with a maximum crest vertical tolerance of plus/minus one-half of one foot ($\pm 0.5'$) above containment target elevation. The containment dike crown target elevation is +4.0' NAVD 88.

4.6 Degradation of Earthen Containment Dikes

Earthen containment dikes must be the same elevation as the marsh creation platform upon completion of the project. Degradation of earthen containment dikes shall be required upon completion of the project to achieve consistent marsh elevations, unless otherwise directed by the Engineer. Spoil from dike degradation shall be used to fill any low lying areas over the containment dike borrow pits. After spreading to marsh elevation, remaining spoil shall be placed in adjacent canals or adjacent open water. All costs associated with the degradation of the containment dikes should be included in Bid Item No. 3 "Earthen Containment Dikes".

4.7 Measurement and Payment

Payment for earthen containment dikes and enhanced spoil banks will be made at the contract unit price per linear foot for Bid Item No. 3 "Earthen Containment Dikes". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction, maintenance, and degradation of all required containment and performing all Work as specified herein.

TS-5 EARTHEN RIDGE CONSTRUCTION AND MAINTENANCE

5.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct and maintain the earthen ridges in accordance with the Specifications and in conformity to the lines, grades, elevations, and tolerances shown on the Plans. The earthen ridge shall be maintained by the Contractor until the marsh fill area has been accepted and completed according to the Plans and these Specifications.

5.2 Materials and Construction

The boundaries of the earthen ridge are depicted on the Plans. The earthen ridge shall be erected to the lines, grades, and elevations specified in the drawings. The earthen ridge shall be constructed using in-situ and dredge fill material to the lines, grades, and elevations specified in the Plans to the greatest extent possible, as directed by the Engineer. The earthen containment/ridge creation borrow areas shall be re-filled with marsh creation fill material during dredging.

The earthen ridge shall be constructed in two phases as shown on the Plans. The first phase shall construct part of the earthen ridge using in-situ material as an earthen containment dike. The earthen ridge section will then be filled to its full template with dredge fill material during marsh creation. The second phase will involve the relocation of a portion of the outer side of the earthen ridge, "Area C", to cover the top of the entire earthen ridge section with in-situ material to a minimum depth of 6 inches.

The earthen ridges are project features and shall not be degraded at the completion of construction.

5.3 Landowner Requirements

The Contractor shall submit an earthen ridge construction and maintenance plan in the Work Plan. The Contractor shall take all precautions necessary to prevent effluent from flowing into adjacent properties and onto areas outside the construction limits.

5.4 Access

All equipment for earthen ridge construction shall access the project area via state water bottoms. Access to the internal areas shall be through open water to the extent possible. Proposed access routes for equipment used to facilitate the construction of the earthen ridge shall be submitted in the Work Plan for approval. Any access route that requires travel across existing marsh must first be approved by the Engineer.

5.5 Tolerance

Construction of the earthen ridge shall be as close to the elevations and areas shown on the drawings as possible, with a maximum crest vertical tolerance of plus one-half of one foot (+0.5') above the earthen ridge target elevation. The earthen ridge crown target elevation is +4.5' NAVD 88.

5.6 Measurement and Payment

Payment for the earthen ridge will be made at the contract unit price per linear foot for Bid Item No. 4 "Earthen Ridge". This unit price per linear foot shall include both the initial construction of the containment portion of the earthen ridge and the relocation of the ridge cover material as shown on the Plans. The portion of the earthen ridge constructed using the marsh creation fill dredged material shall be paid based on marsh creation fill quantities. Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction, maintenance, and degradation of all required containment and performing all Work as specified herein.

TS-6 ACCESS CHANNEL

6.1 Scope:

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct the access channel through removal and satisfactory disposal of spoil materials. The access channel shall be maintained in a useable configuration as required to complete the Work.

6.2 Excavation Method:

The Contractor shall use an environmentally acceptable method that will complete the Work in accordance with the Plans and Specifications. The proposed dredging method must be provided in the Work Plan and approved by the Engineer prior to the commencement of Work.

6.3 Excavation Limits:

The access channel shall not be excavated beyond the limits shown on the Plans without written approval from the Engineer. The location of the permitted access channel is shown on the Plans. The Contractor shall also obtain and submit to the

Engineer a letter of no objection from any pipeline company for the proposed excavation inside their right-of-way.

6.4 Temporary Spoil Disposal Areas:

All dredged material shall be deposited in the temporary spoil placement areas as shown on the Plans or as directed by the Engineer. The access channel temporary spoil shall be utilized to backfill the excavated access channel after the marsh creation areas have been accepted by the Owner, and shall be reworked to $\pm 6"$ of the original bottom depth. Any access channel spoil material that is deposited elsewhere than as indicated on the Plans or as authorized by the Engineer, shall be required to be removed and deposited in approved areas at the Contractor's expense. Additionally, the Contractor will be responsible for restoring unauthorized temporary spoil disposal areas to pre-project conditions at the Contractor's expense.

6.5 Maintenance:

The access channel shall be maintained according to the dimensions shown on the Plans in order to complete the Work. Maintenance excavation shall be performed at the expense of the Contractor.

6.6 Navigation:

The Contractor shall mark the channels with buoys and lights in accordance with the rules and regulations of the U.S. Coast Guard and the U.S. Army Corps of Engineers and shall install temporary warning signs at the locations shown on the Plans.

6.7 Measurement and Payment:

Following completion of access channel dredging and marking the channel in accordance with the Plans and Specifications, the Contractor shall be paid sixty percent (60%) of the contract lump sum price for Bid Item No. 5, "Access Channel". The remaining forty percent (40%) will be paid upon successful completion of access channel backfilling operations, which can be field verified with a survey. This work will be considered complete when the temporary spoil is placed back into the access channels. Price and payment for this item shall constitute full compensation for all labor, materials, supplies, and equipment required for dredging and maintaining the access channel to the specified elevations for the duration of the project.

TS-7 HYDRAULIC DREDGING – CORRIDOR AND MARSH CREATION

7.1 Scope

Hydraulic Dredging shall consist of excavating and satisfactorily placing dredged material in accordance with these Specifications and in conformity to the lines, grades, and elevations shown on the Plans or as directed by the Engineer. Dredging to a maximum cut of -90' NAVD 88 is anticipated, and is permitted in the borrow areas shown on the Plans. The materials to be dredged may consist of gravel, sand, silt, clay, or shell. Additional materials such as logs, stumps, snags, tires, scrap, and other

debris may be encountered within the specified limits of dredging and shall be removed and disposed of by the Contractor.

7.2 Method

The dredge equipment and attendant plant shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and Specifications, and shall be subject to inspection by the Owner or Engineer prior to beginning the Work and at all times during construction. Wave and weather conditions within the borrow area of the project can prove difficult for some equipment. The Contractor shall include an equipment protection plan for acceptance and approval by the Engineer in the Work Plan prior to the Pre-construction Conference. The Dredge Data Sheet, including a complete description of the equipment the Contractor intends to use for dredging (size, horsepower, production rate, draft, etc.) must be completed and submitted with the bid. The Dredge Data Sheet may be found in Appendix A. A Dredge Plan shall also be submitted to the Engineer for approval by the USACE at 45 days prior to the commencement of any dredging. An example Dredge Plan is provided in Appendix I.

7.3 Dredge Location Control

No dredging shall be performed except as depicted on the Plans. All hydraulic dredging shall be performed in a uniform and continuous manner to avoid creating multiple holes, valleys, or ridges within the section of the area to be dredged. All dredges and other auxiliary service vessels shall be equipped with bridge-to-bridge radio telephones capable of operating from the main control station and capable of transmitting and receiving on the frequencies required for the exchange of navigational information and maximum safety of operations. No hydraulic excavation may take place within five hundred feet (500') of any existing pipeline or submerged transmission line. The contact information for pipeline representatives near the borrow area is listed below:

Entergy

Gary Hergert
985-850-1253

Plains All American Pipeline, L.P.

Rusty Cavalier
504-393-6282

Enbridge Pipelines (Louisiana Interstate) Inc.

Leonard Morrison
713-353-5609

The Contractor will be required to pay any costs, fines, or other expenses related to dredging outside of the borrow limits or permit violations resulting from Contractor negligence. If the Contractor does not pay costs, fines, or other expenses related to dredging outside of the borrow limits and/or permit limits, the Owner will deduct said

costs, fines, and expenses from payments due the Contractor. Additionally, said costs, fines, and expenses may be recovered from the Contractor's bond for payment.

7.3.1 Horizontal Location

The Contractor is required to have electronic positioning equipment that will locate the dredge when operating in the borrow area. The Contractor shall keep this equipment functioning on the dredge at all times during construction and when the dredge is within one (1) mile of the borrow area. The Contractor is required to calibrate the equipment as required by the manufacturer. Proof of calibration shall be submitted to the Owner and Engineer. Continuous location of the dredge shall be monitored at all times during dredging operations. The location is to be computed by coordinates in the Louisiana State Plane South Coordinate System, NAD 1983 (Lambert Conformal Conic) with a range error not to exceed fifteen feet (15'). Positions shall be recorded at least every ten (10) minutes and furnished daily as part of the Contractor's Daily Quality control Reports, along with the track of the dredge in relation to the dredge site. The Contractor's method of location of the dredge shall be submitted to the Owner and Engineer for review and approval with the Contractor's Work Plan.

7.3.2 Dredging Elevations

The Contractor is also required to have a dredging depth indicator capable of gauging the depth being dredged at all times for each piece and type of dredging plant being utilized. The instrument may be a graph type paper or electronic recorder. The paper or depth record produced by this instrument shall be submitted daily with the Daily Quality Control Report. Flagging or marking the winch cables is not an acceptable option to fulfill this instrument requirement. The indicators shall be in plain view of Operators and Resident Project Representative(s) and be adjusted to the reference datum, NAVD 88 (Geoid 99). The Contractor shall use surveying equipment and methodology specified in TS-3.2 Accuracy and Methodology to achieve this vertical datum if possible. If the borrow area is out of the range of the specified equipment, the Contractor shall use measured tides to adjust dredging depth to the reference datum. Proposed tide correction methods and measurements must be submitted in the Contractor's Work Plan for review and approval by the Owner and Engineer. ***The maximum depth of cut is shown on the Plans.***

7.4 Submerged Discharge Lines

Dredge discharge lines that cross a navigable channel must be submerged. Submerged pipelines and any anchors securing the pipeline shall rest on the channel and shall be marked in accordance with USCG requirements. Submerged lines shall at no time reduce the depth and width of the existing channel in which it is placed by more than one foot (1.0'). The depth of any pipeline crossing a navigation channel shall be submitted to the USCG for publication. All submerged pipelines installed shall be marked with fluorescent orange buoys and signs stating "DANGER SUBMERGED

PIPELINE” every one hundred fifty feet (150’) for the length of the pipeline. “DANGER SUBMERGED PIPELINE” signs shall also be placed at the beginning and end of all submerged pipelines and at all abrupt changes of direction. Unless otherwise specified by the USCG, submerged pipelines are considered to require special marks and shall have USCG approved flashing yellow lights. When the submerged line is placed in shallow water, outside the navigable channel, where the possibility exists for small boats to cross over the submerged pipeline, the pipeline shall be marked with fluorescent orange buoys and signs stating “DANGER SUBMERGED PIPELINE” every one hundred fifty feet (150’) throughout the length of the submerged pipeline. Costs incurred by the Contractor for compliance with this section should be included in Bid Item No. 1, “Mobilization and Demobilization”. A description of discharge line placement shall be included in the Work Plan.

7.5 Borrow Area Cut Sequence and USACE Restrictions

The Contractor must submit a proposed borrow area cut sequence with the initial Work Plan for approval by the Owner and Engineer prior to dredging operations. The proposed borrow area has been designed based on USACE restrictions. Side slopes of excavation must be no closer than 400 feet from the levee centerline and no steeper than 1(V):5(H), per USACE restrictions at the Alliance Anchorage Borrow Area as shown in the Plans. The Dredge Plan shall reserve 500,000 cubic yards above -70 feet for use by the USACE in the event the saltwater barrier sill is constructed. As needed, the Wills Point Anchorage borrow area shall be dredged to the limits shown on the Plans. If material is dredged outside of the area delineated on the Plans, the Contractor may be subject to deductions set forth in GP-47 Non-Conforming and Unauthorized Work. If the dredge pipeline is to be placed parallel to the Mississippi River Levee, it shall be located at least forty feet (40’) from the toe of the levee.

Dredge pipe installation, removal of the dredge pipe, and work over the levee is limited to when the stage of the Mississippi River is below elevation **+11.0’ NGVD 1929** on the Carrollton Gage, at New Orleans, Louisiana, as per the Department of the Army Permit. Any barge within one-hundred feet (100’) of the Mississippi River levee must be sufficiently spudded down when the river stage is above +11.0’ NGVD 1929 on the Carrollton Gage at New Orleans, Louisiana. Any damage to the levee, batture, revetment, and/or bank resulting from the Contractor’s activities shall be repaired at the Contractor’s expense. All disturbed areas on the levee crown and slopes shall be restored to pre-project conditions and to the satisfaction of the Engineer. The Contractor shall assure that work does not impede or interfere with navigation on the Mississippi River and shall maintain daily ongoing coordination with the Marine Navigation Safety Association (MNSA), River Pilots Association, and the United States Coast Guard.

7.6 Material Placement

The Contractor shall take all precautions necessary to prevent discharge material from flowing into adjacent properties and onto areas outside the construction limits. Any material that is deposited other than as indicated on the Plans or as approved by the Engineer may be required, by the Engineer, to be removed and deposited in approved areas at the Contractor's expense. Excess runoff of dredged material onto adjacent marshes shall be prevented by maintaining a sufficient distance from the discharge

pipe to the edge of the existing marsh or through controlling discharge flow rates and material placement.

Care shall be taken in placement of marsh material due to soft in-situ soil conditions. Material placement methods in this area shall be adjusted in the field to the maximum extent possible.

The Contractor may be required by the Engineer to operate the dredge at a specified lower production rate and/or to temporarily suspend dredging operations for up to 2 days to allow the material to settle and dewater thereby ensuring project elevation and layout is obtained. Effluent control shall be maintained by the use of spillboxes/dewatering structures placed at the Contractor's discretion. All costs associated with this discharge control should be contained within the Bid Item No. 3 "Earthen Containment Dikes". If the Contractor is required by the Engineer to stop dredging, **no** additional payments will be granted until dredging activities are allowed to continue. The cost for this downtime should be included in the Contractor's bid.

7.7 Restoration of Marsh Damages

The Contractor will be responsible for the restoration of any damages caused by unnecessary and/or careless operation during construction. Restoration may include the placement of additional dredged material to project elevations within the areas of damage at the expense of the Contractor and will be performed at the discretion and direction of the Engineer. All Construction Corridors in the marsh creation area(s) shall be repaired by pumping additional material into the area to natural marsh elevation.

7.8 Dewatering

The construction sequencing of this project shall be determined as necessary for dewatering purposes. The Contractor shall provide temporary facilities, such as turbidity screens, spill boxes, weirs, sedimentation berms, or other device necessary to dewater the material placed in the marsh creation area. Temporary controls shall be removed by the Contractor upon completion of the Work at the Contractor's expense. The Contractor shall include proposed dewatering locations and methodology in the Work Plan, which shall be submitted to the Engineer for approval prior to construction.

7.9 Pipeline Leaks

The Contractor shall maintain a tight discharge pipeline at all times. The joints shall be so constructed as to preclude spillage and leakage. If leaks occur, they shall be promptly repaired. The Contractor will transport the Engineer or his Resident Project Representative to the leak repair site for visual inspection. Failure to repair leaks or change the method of operation which causes excessive material loss, as determined by the Engineer, during transport to discharge site will result in suspension of dredging operations and require prompt repair or change of operation to prevent leakage as a prerequisite to the resumption of dredging.

7.10 Tolerance

Placement of hydraulic fill material shall be as close to the elevations and areas shown on the drawings as possible, with a maximum vertical tolerance of $(\pm) 0.5'$. The target elevation for marsh creation is $+3.0'$ NAVD 88. **The maximum elevation is $+3.5'$ NAVD 88.** The Engineer reserves the right to require portions of the project area to be at or near target elevation in order to maximize the amount of emergent marsh created should funding or dredged material properties prevent the entire fill area from reaching the target elevation. The Contractor will be made aware of such situations in writing by the Engineer during construction.

7.11 Grade Stakes

The Engineer may require the Contractor to install grade stakes within the Marsh Creation Fill to monitor fill elevations. No more than six (6) grade stakes will be installed at each Marsh Creation Fill Site. The stakes shall be embedded at least six feet (6') into the soil or at a depth sufficient to resist the stakes being moved by fill material placement, tides, or weather. The grade stakes shall be surveyed and maintained throughout construction. Materials, flagging, and markings for the grade stakes shall be approved by the Engineer before installation. After final acceptance of the Marsh Creation Fill Site and/or Reach, the grade stakes shall be removed as directed by the Engineer. Payment for this item shall be included in contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

7.12 Acceptance

The marsh creation area(s) will be considered for acceptance when the marsh platform has reached and maintained an elevation between $+2.5'$ and $+3.5'$ NAVD 88 for a period of twenty-one (21) days after hydraulic dredging is terminated. Acceptance will be based on the surveyed marsh fill elevation as per TS-3 Surveys, estimated to the nearest $+0.1'$. Process surveys shall consist of transects spaced 400' apart in grid format and shall be stamped by a Professional Licensed Surveyor. The average volume contained in each cell shall be calculated if the process survey elevations are accepted by the Engineer. The volume for each cell shall be calculated using the average end area method as per TS-3.4, or other method approved by the Engineer. Volume calculations shall be submitted to the Engineer for verification. The Engineer shall determine whether or not to accept the in-place volume within three (3) days.

All payment surveys will be performed by the Contractor and witnessed by the Engineer or Resident Project Representative twenty-one (21) days after hydraulic dredging is terminated, as per TS-3.4. If the average elevation of the inspected cell after twenty-one (21) days is below **the elevation of $+2.5'$ NAVD 88**, the Engineer will require the Contractor to place additional material prior to final payment. If the average elevation of the inspected cell is greater than **the elevation of $+3.5'$ NAVD88**, the Engineer will require material to be removed at the expense of the Contractor. However, in the project regions LDSP Reach 2 (STA 349+27.88 to STA 388+04.74) and LDSP Reach 6 (STA 511+87.23 to STA 570+22.0) if the average elevation of the inspected cell after twenty-one (21) days is below **the elevation of $+2.0'$ NAVD 88**, the Engineer will require the Contractor to place additional material prior to final payment. If the average elevation of the inspected cell in these two reaches (Reach 2

and 6) is greater than **the elevation of +3.0' NAVD88**, the Engineer will require material to be removed at the expense of the Contractor. Should funding or dredged material properties prevent the entire fill area to reach the target elevation, the Engineer reserves the right to require portions of the project area to be at or near target elevation through use of training dikes or other such methods, in order to maximize the amount of emergent marsh created. The Contractor will be made aware of such instances in writing by the Engineer during construction.

7.13 Measurement and Payment

Payment for marsh creation will be made at the contract unit price per cubic yard of fill placed in the marsh fill area shown on the Plans for Bid Item No. 6, "Hydraulic Dredging – Corridor and Marsh Creation". *Payment will be made per cubic yard up to the maximum elevation of +3.5' NAVD 88 (except in LDSP Reaches 2 and 6 where the maximum elevation of +3.0' NAVD 88 shall be used) based on the pay survey twenty-one (21) days after hydraulic dredging is terminated.* There will be no payment for placing quantities in excess of the lines, grades, and elevations shown on the plans and stated in these specifications. Price and payment shall constitute full compensation for furnishing all plant, labor, materials, and equipment for dredging, satisfactory placement of dredged material into designated areas, all operations necessary for containment and dewatering of spoil material, and performing all Work as specified herein.

The Contractor may request partial payments. The volume included in the partial payment will be determined by the survey cross sections for the marsh fill area(s) that are submitted by the Contractor and approved by the Engineer. All surveys and visual inspections shall be performed when the Engineer or Resident Project Representative is present. The Contractor shall submit copies of all field survey data to the Engineer prior to payment for processing purposes.

TS-8 NEW PERMANENT CROSSINGS OVER EXISTING CANALS

8.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to remove and replace the existing bridge and culvert crossings and associated fill material as shown on the Plans in accordance with the LA DOTD 2006 specifications noted on the Plans (See Sheets 48 to 52 and Sheet 44).

8.2 Materials and Construction

The Contractor shall use the materials as shown on the Plans and General Notes. All applicable current LA DOTD standard specifications shall be followed as indicated on the Plans. The load on the bridge shall be restricted to a maximum of an HS20 truck as provided in the design criteria of the General Notes on the Plans.

8.3 Measurement and Payment

Payment for removal of debris and construction the bridge and permanent culvert crossings and associated fill material shall be made at a contract lump sum price for Bid Item No. 7 “Permanent Waterways Crossings (Bridge and Culverts Over Existing Canals)”

TS-9 BAYOU DUPONT WEIR REPLACEMENT

9.1 Description:

In August 2002, a rock weir was constructed at the confluence of Bayou Dupont at the Barataria Waterway under the Naomi Outfall Management CWPPRA Project (BA-03C). The constructed weir consisted of rock riprap with navigation signage and lights. A portion of the weir was subsequently removed to facilitate access for the construction of the South Shore of The Pen Shoreline Protection and Marsh Creation Project (BA-41). The weir shall be replaced by the Contractor after the completion of the marsh creation feature.

9.2 Removal

- 9.2.1 A portion of the existing Weir was removed for Contractor’s equipment access for BA-41. The Contractor may remove additional portions of the weir if necessary for project equipment access.
- 9.2.2 Salvageable material shall be stored as set forth in paragraph 9.3 below. Materials that are non-salvageable or damaged during removal shall be disposed of as indicated in paragraph 9.4 below.
- 9.2.3 If pile clusters need to be removed for access, only one pile cluster on each side of the weir shall be removed. If BA-41 Contractor has removed the one pile cluster on either or both sides, no additional pile clusters shall be removed.
- 9.2.4 The Weir shall not be removed beyond a maximum cross-section elevation of -8.0 feet NAVD88 depth and an 80-foot bottom width. The Weir section centerline shall be the center of the lowest elevation of the existing Weir, as marked on the plans.

9.3 Salvage

- 9.3.1 Structure parts listed within these specifications as salvageable shall be removed and stored in an approved location. Parts of the structure that are removed must be removed in a manner as to cause the least amount of damage to the part itself and other structure parts. The Contractor is responsible for replacement of any parts that are salvageable and deemed as damaged after removal. The Contractor must replace these items at the time of Weir replacement at no additional cost to the Owner.

9.3.2 The Weir parts listed herein are designated to be salvaged and shall be placed in a designated area on site, or moved off site to a storage location as approved by the Owner.

1. 300 lb Class Rock Riprap
2. Buoys
3. Buoy cables
4. Anchor Blocks
5. Signs
6. Light Assemblies
7. Mounting Brackets

9.3.3 Rock riprap removed during this project shall be removed or salvaged by the Contractor. All temporary storage locations must be approved by the Owner and Engineer. All other items removed shall be stored in a secure facility approved by the Owner and Engineer. Salvaged parts will be used for the replacement of the Weir at the end of the project and if any damage occurs due to, or during the removal and storage process, the Contractor shall replace the part with like type and kind at no additional cost to the Owner.

9.3.4 Any parts that are to be disassembled shall be match marked with paint, or other method, in a manner to allow for reassembly at the time of Weir replacement. It is the responsibility of the Contractor to reassemble the parts and replace the Weir to the lines, grades, and dimensions show on the plans.

9.4 Disposal of Refuse Material

9.4.1 Parts listed herein are considered refuse and shall be replaced with new items of like type and kind at the time of Weir replacement.

1. Timber Pilings.
2. Cable wrapping pile clusters.
3. Connection hardware for buoys, signs, lights, etc.

9.4.2 All refuse material and damaged parts shall be disposed of in a manner that follows all local, state, and federal laws and regulations.

9.5 Inventory and Storage of Previously Removed Material

The Contractor on BA-41 will inventory all salvaged parts and turn the inventory over to CPRA. CPRA will verify the list of inventory with the BA-41 Contractor and when an agreement on the inventory listed is decided upon, CPRA will retain ownership and responsibility of the salvaged parts (two signs and one light). The Contractor retains ownership and responsibilities of the salvaged parts upon acceptance of the Contract.

9.6 Replacement of Damaged Material

All damaged and refuse material shall be replaced by the Contractor at the time of Weir replacement. Parts must be replaced with parts of like type and kind and approved by the Owner and Engineer prior to installation.

9.7 Rock Rip-Rap Replacement Material

- 9.7.1 All Rock Riprap shall consist of 300 lb Class Rock. The rock weir shall be built to the lines and grades on the plans. The Contractor shall have 300 lb Class Rock delivered to the site with the approval of the Owner and Engineer.
- 9.7.2 Volume of replacement rip-rap necessary to bring the weir to the design lines and grades is an estimate based on a comparison of a survey completed September 2011 and the BA-03C Weir Design.
- 9.7.3 See Technical Specification 11 (TS-11) for 300 lb Class Rock Riprap material specification for gradation requirements and payment.

9.8 Timber Piles

Any piles removed during the access removal, shall be replaced with new timber piles or pile clusters as shown on the plans. Timber pile material specification can be found in LA DOTD 2006 Specifications 804, 812 and in accordance with the Plans ("Timber Construction" General Notes). Payment for the timber piles will be included in the lump sum cost for the weir replacement.

9.9 Permanent Warning Signs and Markers

Permanent Warning Signs and Markers shall be installed according to the Plans. Payment for the Permanent Warning Signs and Markers will be included in the lump sum cost for the weir replacement.

9.10 Measurement and Payment

Payment for removal and replacement of the BA-03C Rock Weir will be made at the contract lump sum price. Lump Sum payment will include, but not be limited to, all labor, equipment, tools, applicable permits, storage rental fees, refuse disposal fees, and other items incidental to the work.

TS-10 SETTLEMENT PLATES

10.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct, install, survey, and maintain the settlement plates in accordance with the Plans and these Specifications.

10.2 Materials

The settlement plate shall be fabricated with a four foot (4') by four foot (4') by one fourth inch ($\frac{1}{4}$ ") steel plate with a three inch (3") diameter galvanized riser pipe attached to the center of the plate with a threaded coupling. The pipe riser shall be a minimum of three feet (3') above the fill to facilitate elevation readings. The top will be closed with a threaded galvanized cap. After fabrication, the plates shall be hot-dipped galvanized.

10.3 Zinc Coating

Zinc coating shall be applied in a manner and thickness quality conforming to ASTM A 123. In any case where zinc coating becomes damaged, the damaged area shall be re-galvanized with a suitable low-melting zinc base alloy as recommended by the American Hot-Dip Galvanizers Association. One coat of a vinyl wash primer followed by red top coat shall be applied over the zinc coat. All painting shall conform to Section 811 and 1008 of the Louisiana Standard Specifications for Roads and Bridges, 2006 edition.

10.4 Installation

The settlement plate must be placed and surveyed prior to placement of marsh fill material. The settlement plate shall be surveyed as specified in TS-3 Surveys. The settlement plate shall be installed within the marsh fill template at the location shown on the Plans or as directed by the Owner and Engineer. The settlement plate must be placed such that the vertical pipe conforms to a vertical plumb standard of no more than 10.5° from true vertical. The settlement plate shall also be marked with brightly colored flagging or reflector tape. The Contractor shall exercise care when placing any construction materials in the vicinity of the settlement plate. Any damaged settlement plate shall be replaced by the Contractor at no expense to the Owner. Damaged settlement plates are defined as plates which would not accurately represent elevation of the project feature in question as determined by the Owner and Engineer. Leveling of the plate bed shall be accomplished by removing the minimum amount of earth or debris necessary to produce an even foundation and in such manner that the density of the plate bed will remain at the same density as the undisturbed adjacent ground. Leveling of the plate bed by the addition of fill will not be permitted.

10.5 Maintenance

The Contractor shall maintain the settlement plate until the Work is completed. Any damaged settlement plate shall be repaired or replaced by the Contractor at no expense to the Owner.

10.6 Measurement, Payment & Acceptance

Payment for this item will be made at the contract unit price per each for Bid Item No. 9, "Settlement Plates". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction and maintenance of all required settlement plates and performing all work specified herein. No payment shall be made for settlement plates that are rejected or damaged due to fault or negligence by the Contractor.

TS-11 R-300 ROCK

11.1 Scope:

The Contractor shall furnish all of the materials, labor and equipment necessary to rebuild the rock weir and conform to the lines, grades, and thicknesses provided on the Plans and in these Specifications, or as directed by the Engineer.

11.2 Material Quality:

Rock material shall be dense, sound and free from cracks, seams and other defects conducive to accelerated weathering. The rock shall not disintegrate upon exposure to the elements or be easily broken from handling, and shall be reasonably free from earth and other foreign materials. Rocks shall have a shape that is angular to sub-rounded. The least dimension of an individual rock shall be at least one third (1/3) its maximum dimension. All test results must be submitted to and approved by the Engineer.

The rock shall be tested and have the following properties:

11.2.1 Bulk Specific Gravity (saturated surface-dry basis). The Bulk Specific Gravity shall not be less than 2.5 when tested in accordance with ASTM C 127 on samples prepared as described for soundness testing.

11.2.2 Absorption. The absorption shall be no more than two percent (2%) when tested in accordance with ASTM C 127 on samples prepared as described for soundness testing.

11.2.3 Soundness. The weight loss in five (5) cycles shall not be more than ten percent (10%) when sodium sulfate is used or more than 15 percent (15%) when magnesium sulfate is used.

11.3 Method of Soundness Testing.

The method of soundness testing to be implemented is the Rock Cube Soundness Test, ASTM D 5240. The sodium sulfate and magnesium sulfate tests shall be performed on a test sample of 5,000 +/- 300 grams of rock fragments, reasonably

uniform in size, cubical in shape, and with a weight of approximately 100 grams each, after testing. Rock fragments used for testing shall be representative of the total rock mass, as noted in ASTM D 4992, and sawed into slabs as described in ASTM D 5121. The slabs shall be further reduced into cubical blocks. The size of the rock fragments will be determined by the available testing equipment with enough material to provide, after sawing, approximately 100 gram samples.

Breakage may occur to the rock due to the sawing process. Any rock that break during the sawing process or initial soaking period shall not be used to conduct the tests. Breakage of cubes during the preparation, including an approximation of the percentage of cubes that break, shall be documented in the test report.

After the completion of the final test cycle, the rock fragments shall be washed to remove the sodium sulfate or magnesium sulfate, and dried. After the sample is dry the change in weight of the sample shall be determined by subtracting the final weight of all fragments that did not break into three (3) or more pieces from the original weight of the sample. The weight loss percentage shall be shown in the test report, along with the qualitative examination.

11.4 Field Durability Inspection

If rock fails to meet the material requirements stated in these specifications above, where specified, the rock may be considered acceptable material only if similar rock from the same source has been demonstrated to be sound after five (5) years or more of service under environmental conditions similar to those to be anticipated for the rock to be installed under these specifications.

A rock source may be rejected if the rock from that source deteriorates in three (3) to five (5) years under similar environmental conditions that are anticipated for the material to be installed under these specifications, even if it meets the testing requirements within these specifications.

Deterioration is defined as the loss of more than one-quarter (1/4) the original volume of rock, severe cracking that could cause the rock to split. Deterioration measurements are taken from linear or surface area particle counts to determine the percentage of deteriorated blocks. Deterioration of more than 25 percent (25%) of the blocks shall be cause for rejection of rock from the source.

11.5 Quarries:

On the basis of information and data available to the Engineer, rock which meets the quality requirements of this specification is produced by the sources listed in the following table.

PRODUCER	NEAREST TOWN TO PIT*	TYPE **	PIT DESIGNATION
APAC	Bloomsdale, MO	LS	APAC Brickeys Quarry
American Stone Supply, Inc.	El Progreso, Cortez, Honduras, Central America	Basalt	American Stone Supply, Inc. Quarry
Bradley Contracting	Cord, AR	DO	Batesville Quarry
Bussen Quarries, Inc.	Mehlville, MO	LS	Bussen Quarry
Cahaba Disaster Recovery	Sayre, AL	SS	Fishtrap Mine
Central Stone Co.	Withers Mill (Monroe City), MO	LS	Pit # 1
Central Stone Co.	Perry, MO	LS	Pit # 9
Delta Companies, Inc.	Cape Girardeau, MO	LS	Southeast Missouri Stone Co. Quarry
Delta Companies, Inc.	Hendrickson, MO	DO	Williamsville Stone Co. Quarry
Titan Cumberland Resources	Salem, KY	LS	Smith Quarry
Delta Companies, Inc.	Cape Girardeau, MO	LS	Southeast Missouri Stone Co. Quarry
Delta Companies, Inc.	Hendrickson, MO	DO	Williamsville Stone Co. Quarry
Florida Rock Industries	Columbus, GA	GN	Columbus Quarry
Florida Rock Industries	Humm Wye, IL	SS	Golconda Quarry
Florida Rock Industries	Calvert City, KY	LS	Grand Rivers Quarry
Florida Rock Industries	Macon, GA	GN	Macon Quarry
Florida Rock Industries	Tyrone, GA	GR	Tyrone Quarry
Granite Mountain Quarries	Sweet Home, AR	GR	Granite Mountain, Quarry # 1
Granite Mountain Quarries	Sweet Home, AR	GR	Granite Mountain, Quarry # 2
Granite Mountain Quarries	Bryant, AR	GR	Granite Mountain, Quarry # 3
Guadelupe Resources, LLC	El Progreso, Cortez, Honduras, Central America	Basalt	Guadelupe Resources Quarry
Hoover Incorporated	Allsboro, AL	LS	Allsboro Quarry
Industrial Minerals Products Division/3M	Little Rock, AR	GR	3M Arch Street Quarry
Lafarge of North America	Cave In Rock, IL	LS	Cave-In-Rock Quarry
Martin Marietta Aggregates	Uniontown, MO	LS	Appleton Quarry
Martin Marietta Aggregates	Black Rock, AR	DO	Black Rock Quarry (Sloan/Cavanaugh)
Martin Marietta Aggregates	Fredonia, KY	LS	Fredonia Quarry
Martin Marietta Aggregates	Smithland, KY	LS	Three Rivers Quarry
Pine Bluff Sand & Gravel Co.	Delaware, AR	SS	River Mountain Quarry
Shippers and Sellers LLC	Kellerman, AL	SS	Kellerman Quarry
Strack Stone Co.	Cape Girardeau, MO	LS	Strack Quarry # 1
Tower Rock Stone Co.	Scott City, MO	LS	Grays Point Quarry
Tower Rock Stone Co.	St. Genevieve, MO	LS	Tower Rock Stone Co.
Travis Creek Energy LLC	Trafford, AL	SS	Trafford Quarry
Vulcan Materials Co.	Black Rock, AR	DO	Black Rock Quarry
Vulcan Materials Co.	Cherokee, AL	LS	Cherokee Quarry
Vulcan Materials Co.	Tuscumbia, AL	LS	Pride Quarry
Vulcan Materials Co.	Lake City, KY	LS	Grand River Quarry
Vulcan Materials Co.	Judsonia, AR	SS	Searcy Quarry
Vulcan Materials Co.	Tuscumbia, AL	LS	Tuscumbia Plant (Quarry #114)
Warren Paving Co.	Salem, KY	LS	Slats Lucas Quarry
White River Materials, Inc.	Cord, AR	LS	Cord Quarry

* "Nearest Town to Pit" according to Rand McNally Road Atlas copyrighted 2010.

** Type Legend: DO=Dolomite LS=Limestone GN=Gneiss GR=Granite(Granite or Nepheline syenite) SS=Sandstone

It is the Contractor's responsibility to determine that the stone source or combination of sources selected is capable of supplying the quantities and gradation needed and at the rate needed to maintain the scheduled progress of the work. Acceptance of a source of stone is not to be construed as acceptance of all material from the source. The right is reserved to reject materials from certain localized areas, zones, strata, or channels, when such materials are unsuitable for stone as determined by the Contracting Officer. Materials produced from a listed or unlisted source shall meet all requirements of these Technical Specifications.

Other rock suppliers may be accepted, prior to construction, with approval by the Engineer. In order to gain acceptance, the Contractor shall obtain and test samples of the rock for gradation under the supervision of the Engineer. The Engineer shall accept the rock if the test results comply with this specification. Rock from the approved sources shall be excavated, selected, and processed to meet the specified quality and grading requirements at the time the rock is to be installed.

11.6 Gradation

The rock shall be R-300 as defined by ASTM D 6092-97 and conform to meet the following gradation relationships:

Stone Weight (lbs.)	% Lighter Than the Mass Specified
700	100
300	50-100
150	15-50
45	0-15

This gradation is based on a specific gravity of 2.65, which is typical of limestone and dolomite, and assumes a rock shape midway between a sphere and a cube. Control of gradation will be by visual inspection either at the source, or Project Site or both. The Engineer reserves the right to verify the gradation, or perform a gradation quality control check, of any shipment. The test shall be performed in accordance with ASTM D 5519 Test Method B Size-Range Grading on a pile of representative rock. The test pile size shall be large enough to ensure a representative sample of the gradation of the rock and provide for test results within a five percent (5%) accuracy. The equipment, labor and cost for testing the samples shall be provided by the Contractor.

If the tested pile does not meet the specification requirements for gradation the rock may be rejected. A pile that meets contract requirements shall be left on the job site as a sample for visual comparison, if required by the Engineer. If a pile is left for visual comparison, it shall be used as part of the last rock riprap to be placed.

11.7 Free Fall

The rock shall be placed carefully onto the weir by limiting the height of drop to less than one (1) foot. The in-place rock shall be reasonably homogeneous and uniformly distributed. Rock shall be placed in a manner to prevent damage to any and all existing structures.

11.8 Losses

The Contractor is responsible to reclaim and utilize all rock that is lost during shipment or construction.

11.9 Equipment

The Contractor shall provide a proposed list of equipment in the Work Plan which will be used to rebuild the rock weir. This list shall include the type (Drag Bucket, etc.), number of each type, and capacity (Cubic Yards, etc.) of the equipment.

11.10 Staging Area

The Contractor is responsible for locating a staging area with adequate depth if rock is to be transferred to smaller barges for light loading purposes. The Contractor shall include the proposed location of the staging area in the Work Plan. If the Staging area is within 150 feet of a well head or pipeline, they shall be probed and appropriately marked by the Contractor. The Contractor shall also submit any letters of no objection or agreements for temporary easements from the landowner, well owner, or pipeline owner to the Engineer.

11.11 Tolerances

The rock weir shall be rebuilt according to the cross sections (Elevations, slopes, dimensions, etc.) shown on the Plans with a tolerance of +0.3 feet to -0.7 feet. Any rock placed outside of the specified tolerances will not be paid for by the Owner and must be removed by the Contractor.

11.12 Acceptance

The rock weir shall be accepted by the Engineer if it achieves compliance with the lines, grades, elevations, and tolerances in the Plans and these Specifications. All excess material, including extra rock riprap, shall be removed from site before final acceptance.

11.13 Measurement and Payment

Payment for this item will be included in the lump sum price for Bid Item No. 8 "Bayou Dupont Weir Reconstruction".

TS-12 SIGNAGE

12.1 Temporary Warning Signs

12.1.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct and install the warning signs in accordance with the Plans and these Specifications or as directed by the Engineer.

12.1.2 Materials

Each of the warning signs shall be fabricated from 3/16 inch thick plate aluminum or approved equal, and bolted to one (1) 12" diameter (nominal end) x 40 ft long timber piling after it is driven to the proper depth, as shown on the Plans. All timber piling shall conform to LA DOTD 2006 Standard Specification Sections 812 and 1014. All piling shall be treated with Creosote treatment meeting American Wood Preservers Association (AWPA) P2 with a minimum retention of 20 lb./cu. ft. All creosote treated pilings shall be steam flushed for a minimum of one (1) hour at 240° F (116° C) after treatment. Retention shall be determined by assay performed and certified by the treating company. Each sign shall have a reflective face. The sign and face lettering shall be fabricated as shown on the Plans.

12.1.3 Installation

The warning signs shall be installed at the locations shown on the Plans or as directed by the Engineer. The top of the pile shall be at an elevation of 11.0 ($\pm 0.5'$) feet NAVD 88.

12.1.4 Removal

All pilings or pipes shall be removed to depth at least 10' below existing ground. All material not incorporated into the temporary warning signs shall become property of the Contractor and shall be removed from the site prior to demobilization.

12.1.5 Measurement and Payment

Payment for this item will be included in the contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization". No payment shall be made for signs that are rejected or damaged due to fault or negligence by the Contractor.

12.2 Project Funding Sign

12.2.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct and install the project funding sign in accordance with the Plans and these Specifications.

12.2.2 Materials

12.2.2.1. Panel

The sign shall be fabricated from minimum 1/8" thick commercial grade aluminum plate that is five (5) feet high and seven (7) feet wide. The sign shall have a blue background with white lettering and display the project logos as shown in the Plans. The Owner shall provide the contractor with digital graphic files for the project logos to be used in the sign construction.

12.2.2.2. Posts and Hardware

Post shall be in accordance with Louisiana Standard Specifications for Roads and Bridges, latest edition, Standard Specification Section 1015.02 (a) (3). Sign posts and mountings shall be constructed as to hold the sign in proper and permanent position and to resist swaying under wind loads or displacement by vandalism. All nuts, bolts, and washers shall be hot galvanized. Nylon washers shall be installed at both ends of all bolts.

12.2.3 Installation

The project funding sign shall be installed prior to the beginning of construction as a location and height as directed by the Owner. The sign shall be maintained in good order for the duration of construction. At the direction of the Owner, the Contractor may be required to replace the project funding sign at their own expense if the Owner finds it has not been maintained properly.

12.2.4 Measurement and Payment

Payment for this item will be included in the contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization" and shall constitute compensation for furnishing all overhead, profit, labor, materials, equipment for installation, and any other cost incidental to performing all Work as specified herein. The Owner shall pay for only one mobilization and demobilization effort. Should the Contractor demobilize prior to completing the Work, subsequent remobilization shall be performed at no cost to the Owner.

END OF PART III – TECHNICAL SPECIFICATIONS