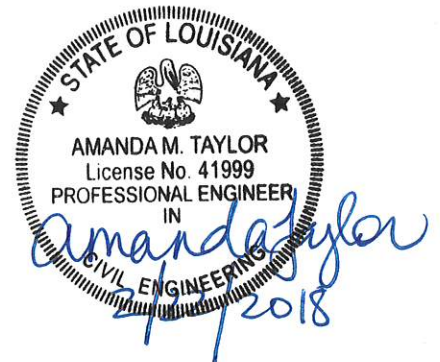


**BID DOCUMENTS  
FOR**

**COLE'S BAYOU MARSH RESTORATION PROJECT  
(TV-63)**

**VERMILION PARISH, LOUISIANA**



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

**FEBRUARY 2018**

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## LIST OF DRAWING SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	GENERAL NOTES
3	PROJECT LAYOUT
4	EQUIPMENT ACCESS CORRIDOR LAYOUT
5	BORROW AREA PLAN VIEW
6	MARSH CREATION AREAS 1 & 2 PLAN VIEW
7	MARSH CREATION AREA 3 PLAN VIEW
8	EQUIPMENT ACCESS TYPICAL SECTION
9	DREDGE PIPELINE CORRIDOR & CROSSINGS TYPICAL SECTIONS
10	BORROW AREA TYPICAL SECTIONS
11-12	TYPICAL MARSH CREATION AREA SECTIONS
13	WATER CONTROL STRUCTURE 1 PLAN, PROFILE, & SECTION
14	WATER CONTROL STRUCTURE 2 PLAN, PROFILE, & SECTION
15	WATER CONTROL STRUCTURE 3 PLAN, PROFILE, & SECTION
16	EARTHEN PLUG 3 PLAN, PROFILE, & SECTION
17	WATER CONTROL STRUCTURE 4 PLAN, PROFILE, & SECTION
18	WATER CONTROL STRUCTURE 5 PLAN, PROFILE, & SECTION
19	WATER CONTROL STRUCTURE 6 PLAN, PROFILE, & SECTION
20	EARTHEN PLUG 6 PLAN, PROFILE, & SECTION
21	WATER CONTROL STRCUTURE 7 PLAN, PROFILE, & SECTION
22	WATER CONTROL STRUCTURE 8 PLAN, PROFILE, & SECTION
23	WATER CONTROL STRUCTURE 9 PLAN, PROFILE, & SECTION
24	TIMBER PILE DETAILS
25	SETTLEMENT PLATE DETAILS
26	GRADE STAKE & INLINE CHECK VALVE DETAIL
27	DESIGN SURVEY LAYOUT
28	CONSTRUCTION SURVEY LAYOUT
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33	MARSH CREATION AREA 1 SECTIONS
34-36	MARSH CREATION AREA 2 SECTIONS
37-43	MARSH CREATION AREA 3 SECTIONS
44-50	EQUIPMENT ACCESS SECTIONS

## **ADVERTISEMENT FOR BIDS**

Sealed bids will be received for the State of Louisiana by the Coastal Protection and Restoration Authority, 150 Terrace Avenue, 4<sup>th</sup> Floor Conference Center, Baton Rouge, Louisiana 70802 until 2:00 P.M., **Wednesday, April 18, 2018.**

ANY PERSON REQUIRING SPECIAL ACCOMMODATIONS SHALL NOTIFY THE COASTAL PROTECTION AND RESTORATION AUTHORITY OF THE TYPE(S) OF ACCOMMODATION REQUIRED NOT LESS THAN SEVEN (7) DAYS BEFORE THE BID OPENING.

FOR: **Cole's Bayou Marsh Restoration Project**  
**Vermilion Parish, Louisiana**

PROJECT NUMBER: **TV-0063**

Complete Bid Documents for this project are available in electronic form. They may be obtained without charge and without deposit from <http://coastal.la.gov/resources/rfps-rsiqs-contracts/bids/>. Printed copies can also be obtained from:

COASTAL PROTECTION AND RESTORATION AUTHORITY (CPRA)

150 Terrace Avenue

Baton Rouge, LA 70802

Attn: Allison Richard

E-mail: [cpa.bidding@la.gov](mailto:cpa.bidding@la.gov) Phone: (225) 342-5453 Fax: (225) 800-5599

All bids shall be accompanied by bid security in an amount of five percent (5.0%) of the sum of the base bid and all alternates. The form of this security shall be as stated in the Instructions to Bidders included in the Bid Documents for this project.

The successful Bidder shall be required to furnish a Performance and Payment Bond written as described in the Instructions to Bidders included in the Bid Documents for this project.

### **A MANDATORY PRE-BID CONFERENCE WILL BE HELD**

at **2:30 PM on Thursday, April 12, 2018 at CPRA Office, 150 Terrace Avenue, Baton Rouge, LA 70802**

Bids shall be accepted only from those bidders who attend the Mandatory Pre-Bid Conference in its entirety.

Bidders are highly encouraged to visit the project site, but no official site visit is planned. Contractors must supply their own transportation, boat rental, and boat launching fees for the site visit. Airboats are recommended.

The jobsite is located on private property. Prior to accessing the project site, you must contact both Randy Moertle, Executive Director, Rainey Conservation Alliance at (985) 856-3630 and Timmy Vincent, Manager, Paul J. Rainey Wildlife Sanctuary at (337) 652-5496.

Contact Brad Miller at (225) 342-4122 if directions are needed to the Mandatory Pre-Bid Conference.

Bids shall be accepted from Contractors who are licensed under LA. R.S. 37:2150-2192 for the classification of **Heavy Construction and/or Specialty: Dredging**. In accordance with LA. R.S. 37:2163(D), anyone objecting to the classification must send a certified letter to both the Louisiana State Licensing Board for Contractors and the CPRA at the address listed above. The letter must be received no later than ten (10) working days prior to the day on which bids are to be opened.

Bidder is required to comply with provisions and requirements of LA R.S.38:2212(B)(5). No bid may be withdrawn for a period of forty-five (45) calendar days after receipt of bids, except under the provisions of LA. R.S. 38:2214.

The Owner reserves the right to reject any and all bids for just cause. In accordance with La. R.S. 38:2212(B)(1), the provisions and requirements of this Section; and those stated in the bidding documents shall not be waived by any entity.

When this project is financed either partially or entirely with State Bonds or financed in whole or in part by federal or other funds which are not readily available at the time bids are received, the award of this Contract is contingent upon the granting of lines of credit, or the sale of bonds by the Bond Commission or the availability of federal or other funds. The State shall incur no obligation to the Contractor until the Contract between Owner and Contractor is fully executed.

Coastal Protection and Restoration Authority is a participant in the Small Entrepreneurship (SE) Program (the Hudson Initiative) and the Veteran-Owned and Service-Connected Disabled Veteran-Owned (LaVet) Small Entrepreneurships Program. Bidders are encouraged to consider participation. Information is available from Coastal Protection and Restoration Authority or on its website at <http://www.coastal.la.gov/>.

STATE OF LOUISIANA  
COASTAL PROTECTION AND RESTORATION AUTHORITY  
MICHAEL R. ELLIS, EXECUTIVE DIRECTOR

# INSTRUCTIONS TO BIDDERS

## COMPLETION TIME:

The Bidder shall agree to fully complete the contract within **Three Hundred Forty-Two (342)** consecutive calendar days for the Base Bid. Extensions as may be granted under Section GP-44 of the General Provisions and acknowledges that this construction time will start on or before the date specified in the written "Notice to Proceed" from the Owner.

## LIQUIDATED DAMAGES:

The Bidder shall agree to pay as Liquidated Damages the amount of **Five Thousand Four Hundred Seventy Dollars (\$5,470.00)** for each consecutive calendar day for which the work is not complete, beginning with the first day beyond the contract completion date stated on the "Notice to Proceed" or as amended by change order.

## ARTICLE 1

### DEFINITIONS

#### 1.1 The Bid Documents include the following:

Advertisement for Bids  
Instructions to Bidders  
Bid Form  
Bid Bond  
General Provisions  
Special Provisions  
Technical Specifications  
Construction Drawings  
Contract Between Owner and Contractor  
and Performance and Payment Bond  
Affidavit  
User Agency Documents (if applicable)  
Change Order Form  
Recommendation of Acceptance  
Other Documents (if applicable)  
Addenda issued during the bid period and  
acknowledged in the Bid Form

1.2 All definitions set forth in the General Provisions and the Special Provisions are applicable to the Bid Documents, unless otherwise specifically stated or written.

1.3 Addenda are written and/or graphic instruments issued by the Engineer prior to the opening of bids which modify or interpret the Bid Documents by additions, deletions, clarifications, corrections and prior approvals.

1.4 A bid is a complete and properly signed pro-

posal to do the work or designated portion thereof for the sums stipulated therein supported by data called for by the Bid Documents.

1.5 Base bid is the sum stated in the bid for which the Bidder offers to perform the work described as the base, to which work may be added, or deleted for sums stated in alternate bids.

1.6 An alternate bid (or alternate) is an amount stated in the bid to be added to the amount of the base bid if the corresponding change in project scope or materials or methods of construction described in the Bid Documents is accepted.

1.7 A Bidder is one who submits a bid for a prime Contract with the Owner for the work described in the Bid Documents.

1.8 A Sub-bidder is one who submits a bid to a Bidder for materials and/or labor for a portion of the work.

1.9 Where the word "Engineer" is used in any of the documents, it shall refer to the Prime Designer of the project, regardless of discipline.

## ARTICLE 2

### PRE-BID CONFERENCE

2.1 A Pre-Bid Conference may be held at the time and location described in the Advertisement for Bids. The purpose of the Pre-Bid Conference is to familiarize Bidders with the requirements of the Project and the intent of the Bid Documents, and

to receive comments and information from interested Bidders. If the Pre-Bid Conference and/or Job Site Visit is stated in the Advertisement for Bids to be a Mandatory Pre-Bid Conference and/or Mandatory Job Site Visit, bids shall be accepted only from those bidders who attend the Pre-Bid Conference and/or Job Site Visit. Contractors who are not in attendance for the entire Pre-Bid Conference and/or Job Site Visit will be considered to have not attended.

2.2 Any revision of the Bid Documents made as a result of the Pre-Bid Conference shall not be valid unless included in an addendum.

### **ARTICLE 3**

#### **BIDDER'S REPRESENTATION**

3.1 Each Bidder by making his bid represents that:

3.1.1 He has read and understands the Bid Documents and his bid is made in accordance therewith.

3.1.2 He has visited the site and has familiarized himself with the local conditions under which the work is to be performed.

3.1.3 His bid is based solely upon the materials, systems and equipment described in the Bid Documents as advertised and as modified by addenda.

3.1.4 His bid is not based on any verbal instructions contrary to the Bid Documents and addenda.

3.1.5 He is familiar with the Code of Governmental Ethics requirement that prohibits public servants and/or their immediate family members from bidding on or entering into contracts; he is aware that the Designer and its principal owners are considered Public Servants under the Code of Governmental Ethics for the limited purposes and scope of the Design Contract with the State on this Project (see Ethics Board Advisory Opinion, No. 2009-378 and 2010-128); and neither he nor any principal of the Bidder with a controlling interest therein has an immediate family relationship with the Designer or any principal within the Designer's firm. (see La. R.S. 42:1113). Any Bidder

submitting a bid in violation of this clause shall be disqualified and any contract entered into in violation of this clause shall be null and void.

3.2 The Bidder must be fully qualified under any State or local licensing law for Contractors in effect at the time and at the location of the work before submitting his bid. In the State of Louisiana, Revised Statutes 37:2150, et seq. will be considered, if applicable.

The Contractor shall be responsible for determining that all of his Sub-bidders or prospective Sub-contractors are duly licensed in accordance with law.

### **ARTICLE 4**

#### **BID DOCUMENTS**

4.1 Copies

4.1.1 Bid Documents may be obtained from the Coastal Protection and Restoration Authority as stated in the Advertisement for Bids.

4.1.1.2 In addition to the availability of printed Bid Documents, the Coastal Protection and Restoration Authority will provide the Bid Documents in electronic format. They may be obtained without charge and without deposit as stated in the Advertisement for Bids.

4.1.1.2.2 Where electronic distribution is provided, all other plan holders are responsible for their own reproduction costs.

4.1.2 Complete sets of Bid Documents shall be used in preparing bids; neither the Owner nor the Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.

4.1.3 The Owner or Engineer in making copies of the Bid Documents available on the above terms, do so only for the purpose of obtaining bids on the work and do not confer a license or grant for any other use.

4.2 Interpretation or Correction of Bid Documents

4.2.1 Bidders shall promptly notify the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids of any ambiguity, inconsistency or error which they may discover upon examination of the Bid Documents or of the site and local conditions.

4.2.2 Bidders requiring clarification or interpretation of the Bid Documents shall make a written request to the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids, to reach him/her at least seven days prior to the date for receipt of bids.

4.2.3 Any interpretation, correction or change of the Bid Documents will be made by addendum. Interpretations, corrections or changes of the Bid Documents made in any other manner will not be binding and Bidders shall not rely upon such interpretations, corrections and changes.

#### 4.3 Substitutions

4.3.1 The materials, products and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitutions shall be allowed after bids are received.

4.3.2 No substitution will be considered unless written request for approval has been submitted by the Proposer and has been received by the Engineer at least seven (7) working days prior to the opening of bids. (RS38:2295C) Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including model numbers, drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. It shall be the responsibility of the proposer to include in his proposal all changes required of the Bid Documents if the proposed product is used. Prior approval is given contingent upon supplier being responsible for any costs which may be necessary to modify the space or facilities needed to accommodate the materials and

equipment approved.

4.3.3 If the Engineer approves any proposed substitution, such approval will be set forth in an addendum. Bidders shall not rely upon approvals made in any other manner.

#### 4.4 Addenda

4.4.1 Addenda will be mailed or delivered to all who are known by the Coastal Protection and Restoration Authority to have received a complete set of Bid Documents.

4.4.2 Copies of addenda will be made available for inspection wherever Bid Documents are on file for that purpose.

4.4.3 Except as described herein, addenda shall not be issued within a period of seventy-two (72) hours prior to the advertised time for the opening of bids, excluding Saturdays, Sundays, and any other legal holidays. If the necessity arises of issuing an addendum modifying the Bid Documents within the seventy-two (72) hour period prior to the advertised time for the opening of bids, then the opening of bids shall be extended at least seven but no more than twenty-one (21) working days, without the requirement of re-advertising. The revised time and date for the opening of bids shall be stated in the addendum.

4.4.4 Each Bidder shall ascertain from the Coastal Protection and Restoration Authority prior to submitting his bid that he has received all addenda issued, and he shall acknowledge their receipt on the Bid Form.

4.4.5 The Owner shall have the right to extend the bid date by up to (30) thirty days without the requirement of re-advertising. Any such extension shall be made by addendum issued by the Coastal Protection and Restoration Authority.

## ARTICLE 5

### BID PROCEDURE

#### 5.1 Form and Style of Bids

5.1.1 Bids shall be submitted on the Louisiana Uniform Public Work Bid Form provided by the Engineer.

5.1.2 All blanks on the Bid Form shall be filled in manually in ink or typewritten.

5.1.3 Bid sums shall be expressed in both words and figures, and in case of discrepancy between the two, the written words shall govern.

5.1.4 Any interlineation, alteration or erasure must be initialed by the signer of the bid or his authorized representative.

5.1.5 Bidders are cautioned to complete all alternates should such be required in the Bid Form. Failure to submit alternate prices will render the bid non responsive and shall cause its rejection.

5.1.6 Bidders are cautioned to complete all unit prices should such be required in the Bid Form. Unit prices represent a price proposal to do a specified quantity and quality of work.

5.1.7 Bidders are strongly cautioned to ensure that all blanks on the bid form are completely and accurately filled in.

5.1.8 Bidder shall make no additional stipulations on the Bid Form nor qualify his bid in any other manner.

5.1.9 The bid shall include the legal name of Bidder. Written evidence of the authority of the person signing the bid shall be submitted at the time of bidding.

The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable under any of the following conditions:

(a) Signature on bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership, limited liability company, limited liability partnership, or other legal entity listed in the most current business records on file with the Secretary of State.

(b) Signature on bid is that of authorized representative as documented by the legal entity certifying the authority of the person.

(c) Legal entity has filed in the appropriate records of the Secretary of State, an affidavit, resolution or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office. A bid submitted by an agency shall have a current Power of Attorney attached certifying agent's authority to bind Bidder. The name and license number on the envelope shall be the same as the entity identified on the Bid Form.

5.1.10 On any bid in excess of fifty thousand dollars (\$50,000.00), the Contractor shall certify that he is licensed under R.S. 37: 2150-2173 and show his license number on the bid above his signature or his duly authorized representative.

## 5.2 Bid Security

5.2.1 No bid shall be considered or accepted unless the bid is accompanied by bid security in an amount of five percent (5.0%) of the base bid and all alternates.

The bid security shall be in the form of a certified check or cashier's check drawn on a bank insured by the Federal Deposit Insurance Corporation, or a Bid Bond written by a surety company licensed to do business in Louisiana and signed by the surety's agent or attorney-in-fact. The Bid Bond shall be written on the Coastal Protection and Restoration Authority Bid Bond Form, and the surety for the bond must meet the qualifications stated thereon. The Bid Bond shall include the legal name of the bidder be in favor of the State of Louisiana, Coastal Protection and Restoration Authority, and shall be accompanied by appropriate power of attorney. The Bid Bond must be signed by both the bidder/principal and the surety in the space provided on the Coastal Protection and Restoration Authority Bid Bond Form. Failure by the bidder/principal or the surety to sign the bid bond shall result in the rejection of the bid.

Bid security furnished by the Contractor shall guarantee that the Contractor will, if awarded the work according to the terms of his proposal, enter into the Contract and furnish Performance and Payment Bonds as required by these Bid Documents, within ten (10) days after written notice that the instrument is ready for his signature.

Should the Bidder refuse to enter into such Contract or fail to furnish such bonds, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as penalty.

5.2.2 The Owner will have the right to retain the bid security of Bidders until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that bids may be withdrawn, or (c) all bids have been rejected.

### 5.3 Submission of Bids

5.3.1 The Bid shall be sealed in an opaque envelope. The bid envelope shall be identified on the outside with the name of the project, and the name, address, and license number of the Bidder. The envelope shall contain **only one bid form** and will be received until the time specified and at the place specified in the Advertisement for Bids. It shall be the specific responsibility of the Bidder to deliver his sealed bid to the Coastal Protection and Restoration Authority at the appointed place and prior to the announced time for the opening of bids. Late delivery of a bid for any reason, including late delivery by United States Mail, or express delivery, shall disqualify the bid.

If the bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "Bid Enclosed" on the face thereof. Such bids shall be sent by Registered or Certified Mail, Return Receipt Requested, addressed to:

Coastal Protection and Restoration Authority  
P.O. Box 44027  
Baton Rouge, Louisiana, 70804-4027

Bids sent by express delivery shall be delivered to:  
Coastal Protection and Restoration Authority  
150 Terrace Avenue  
Suite 100  
Baton Rouge, Louisiana 70802

5.3.2 Bids shall be deposited at the designated location prior to the time on the date for receipt of bids indicated in the Advertisement for Bids, or any extension thereof made by addendum. Bids received after the time and date for receipt of bids will be returned unopened.

5.3.3 Bidder shall assume full responsibility for timely delivery at location designated for receipt of bids.

5.3.4 Oral, telephonic or telegraphic bids are invalid and shall not receive consideration. Owner shall not consider notations written on outside of bid envelope which have the effect of amending the bid. Written modifications enclosed in the bid envelope, and signed or initialed by the Contractor or his representative, shall be accepted.

### 5.4 Modification or Withdrawal of Bid

5.4.1 A bid may not be modified, withdrawn or canceled by the Bidder during the time stipulated in the Advertisement for Bids, for the period following the time and bid date designated for the receipt of bids, and Bidder so agrees in submitting his bid, except in accordance with R.S. 38:2214 which states, in part, "Bids containing patently obvious mechanical, clerical or mathematical errors may be withdrawn by the Contractor if clear and convincing sworn, written evidence of such errors is furnished to the public entity within forty eight hours of the Bid Opening excluding Saturdays, Sundays and legal holidays".

5.4.2 Prior to the time and date designated for receipt of bids, bids submitted early may be modified or withdrawn only by notice to the party receiving bids at the place and prior to the time designated for receipt of bids.

5.4.3 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these



Instructions to Bidders.

5.4.4 Bid Security shall be in an amount sufficient for the bid as modified or resubmitted.

## **ARTICLE 6**

### **CONSIDERATION OF BIDS**

#### **6.1 Opening of Bids**

6.1.1 The properly identified Bids received on time will be opened publicly and will be read aloud, and a tabulation abstract of the amounts of the base bids and alternates, if any, will be made available to Bidders.

#### **6.2 Rejection of Bids**

6.2.1 The Owner shall have the right to reject any or all bids and in particular to reject a bid not accompanied by any required bid security or data required by the Bid Documents or a bid in any way incomplete or irregular.

#### **6.3 Acceptance of Bid**

6.3.2 It is the intent of the Owner, if he accepts any alternates, to accept them in the order in which they are listed in the Bid Form. Determination of the Low Bidder shall be on the basis of the sum of the base bid and the alternates accepted. However, the Owner shall reserve the right to accept alternates in any order which does not affect determination of the Low Bidder.

## **ARTICLE 7**

### **POST-BID INFORMATION**

#### **7.1 Submissions**

7.1.1 The Contractor shall submit all required deliverables in conformance with Section SP-4 of the Special Provisions.

It is the preference of the Owner that, to the greatest extent possible or practical, the Contractor utilize Louisiana Subcontractors, manufacturers, suppliers and labor.

7.1.2 The Contractor will be required to establish to the satisfaction of the Engineer the reliability and responsibility of the proposed Subcontractors to furnish and perform the work described in the sections of the Specifications pertaining to such proposed Subcontractor's respective trades. The General Contractor shall be responsible for actions or inactions of Subcontractors and/or material suppliers.

The General Contractor is totally responsible for any lost time or extra expense incurred due to a Subcontractor's/or Material Supplier's failure to perform. Failure to perform includes, but is not limited to, a Subcontractor's financial failure, abandonment of the project, failure to make prompt delivery, or failure to do work up to standard. Under no circumstances shall the Owner mitigate the General Contractor's losses or reimburse the General Contractor for losses caused by these events.

7.1.3 Subcontractors and other persons and organizations selected by the Bidder must be used on the work for which they were proposed and shall not be changed except with the written approval of the Owner and the Engineer.

In accordance with La. R.S. 38:2227, LA. R.S. 38:2212.10 and LA. R.S. 23:1726(B) the low bidder on this project must submit the completed Attestations Affidavit (Past Criminal Convictions of Bidders, Verification of Employees and Certification Regarding Unpaid Workers Compensation Insurance) form found within this bid package. The Attestations Affidavit form shall be submitted to Coastal Protection and Restoration Authority contact person listed in the Advertisement For Bids within 10 days after the opening of bids.

## **ARTICLE 8**

### **PERFORMANCE AND PAYMENT BOND**

#### **8.1 Bond Required**

8.1.1 The Contractor shall furnish and pay for a Performance and Payment Bond written by a company licensed to do business in Louisiana,

which shall be signed by the surety's agent or attorney-in-fact, in an amount equal to 100% of the Contract amount. Surety must be listed currently on the U. S. Department of Treasury Financial Management Service List (Treasury List) as approved for an amount equal to or greater than the contract amount, or must be an insurance company domiciled in Louisiana or owned by Louisiana residents. If surety is qualified other than by listing on the Treasury list, the contract amount may not exceed fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance and may not exceed the amount of \$500,000. However, a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A. M. Best's Key Rating Guide shall not be subject to the \$500,000 limitation, provided that the contract amount does not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide nor fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance. The Bond shall be signed by the surety's agent or attorney-in-fact. The Bond shall be in favor of the Coastal Protection and Restoration Authority.

## 8.2 Time of Delivery and Form of Bond

8.2.1 The Bidder shall deliver the required bond to the Owner simultaneous with the execution of the Contract.

8.2.2 Bond shall be in the form furnished by the Coastal Protection and Restoration Authority, entitled **CONTRACT BETWEEN OWNER AND CONTRACTOR AND PERFORMANCE AND PAYMENT BOND**, a copy of which is included in the Bid Documents.

8.2.3 The Bidder shall require the Attorney-in-Fact who executes the required bond on behalf of the surety to affix thereto a certified and current copy of his power of Attorney.

## ARTICLE 9

### FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

#### 9.1 Form to be Used

9.1.1 Form of the Contract to be used shall be furnished by the Coastal Protection and Restoration Authority, an example of which is bound in the Bid Documents.

#### 9.2 Award

9.2.1 Before award of the Contract, the successful Bidder shall furnish to the Owner a copy of a Disclosure of Ownership Affidavit stamped by the Secretary of State, a certified copy of the minutes of the corporation or partnership meeting which authorized the party executing the bid to sign on behalf of the Contractor.

9.2.2 In accordance with Louisiana Law, when the Contract is awarded, the successful Bidder shall, at the time of the signing of the Contract, execute the Non-Collusion Affidavit included in the Contract Documents

9.2.3 When this project is financed either partially or entirely with State Bonds, the award of this Contract is contingent upon the sale of bonds by the State Bond Commission. The State shall incur no obligation to the Contractor until the Contract between Owner and Contractor is duly executed.

# LOUISIANA UNIFORM PUBLIC WORK BID FORM

**TO:** Coastal Protection and Restoration Authority  
150 Terrace Avenue  
Suite 100  
Baton Rouge, LA 70802  
*(Owner to provide name and address of owner)*

**BID FOR:** Cole's Bayou  
Marsh Restoration Project  
(TV-63)  
*(Owner to provide name of project and other identifying information)*

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: CPRA  
and dated: February, 2018

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) \_\_\_\_\_.

**TOTAL BASE BID:** For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" \* but not alternates) the sum of:

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

**ALTERNATES:** For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

**Alternate No. 1:** *(Not Applicable)* for the lump sum of:

NOT APPLICABLE Dollars (\$NOT APPLICABLE)

**Alternate No. 2** *(Not Applicable)* for the lump sum of:

NOT APPLICABLE Dollars (\$NOT APPLICABLE)

**Alternate No. 3** *(Not Applicable)* for the lump sum of:

NOT APPLICABLE Dollars (\$NOT APPLICABLE)

**NAME OF BIDDER:** \_\_\_\_\_

**ADDRESS OF BIDDER:** \_\_\_\_\_

**LOUISIANA CONTRACTOR'S LICENSE NUMBER:** \_\_\_\_\_

**NAME OF AUTHORIZED SIGNATORY OF BIDDER:** \_\_\_\_\_

**TITLE OF AUTHORIZED SIGNATORY OF BIDDER:** \_\_\_\_\_

**SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER \*\*:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

\* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

\*\* If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required, may result in the rejection of the bid unless bidder has complied with La. R.S. 38:2212(B)(5).

**BID SECURITY** in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38:2218.A is attached to and made a part of this bid.

# LOUISIANA UNIFORM PUBLIC WORK BID FORM

## UNIT PRICE FORM

**TO:** Coastal Protection and Restoration Authority  
150 Terrace Avenue  
Suite 100  
Baton Rouge, LA 70802  
*(Owner to provide name and address of owner)*

**BID FOR:** Cole's Bayou  
Marsh Restoration Project  
(TV-63)  
*(Owner to provide name of project and other identifying information)*

**UNIT PRICES:** This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Hydraulic Dredge Mobilization/Demobilization (TS-100)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
1	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Dredge Pipeline Mobilization, Installation, and Demobilization (TS-101)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
2	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ General Mobilization/Demobilization (TS-102)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
3	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Surveys (TS-210)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
4	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Grade Stakes (TS-220)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
5	87	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Settlement Plates (TS-250)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
6	8	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Instrumented Settlement Plates (TS-251)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
7	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Earthen Containment Dikes (TS-300)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
8	41,571	Linear Foot		

**Wording for "DESCRIPTION" is to be provided by the Owner.**

**All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.**

# LOUISIANA UNIFORM PUBLIC WORK BID FORM

## UNIT PRICE FORM

**TO: Coastal Protection and Restoration Authority**  
 150 Terrace Avenue  
 Suite 100  
 Baton Rouge, LA 70802  
*(Owner to provide name and address of owner)*

**BID FOR: Cole's Bayou**  
 Marsh Restoration Project  
 (TV-63)  
*(Owner to provide name of project and other identifying information)*

**UNIT PRICES:** This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Earthwork (TS-310)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
9	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Marsh Creation Borrow Area Access Corridor (TS-330)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
10	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Hydraulic Dredging and Marsh Fill (TS-400)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
11	1,190,688	Cubic Yard		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Corrugated Metal Pipe (TS-510)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
12	1,240	Linear Foot		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Inline Check Valve (TS-520)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
13	21	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Non-Woven Geotextile (TS-640)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
14	8,120	Square Yard		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Articulated Concrete Block Mat (TS-750)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
15	7,390	Square Yard		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Treated Timber Piles (TS-950)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
16	220	Each		

**Wording for "DESCRIPTION" is to be provided by the Owner.**

**All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.**

# LOUISIANA UNIFORM PUBLIC WORK BID FORM

## UNIT PRICE FORM

**TO: Coastal Protection and Restoration Authority**  
 150 Terrace Avenue  
 Suite 100  
 Baton Rouge, LA 70802  
*(Owner to provide name and address of owner)*

**BID FOR: Cole's Bayou**  
 Marsh Restoration Project  
 (TV-63)  
*(Owner to provide name of project and other identifying information)*

**UNIT PRICES:** This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Treated Timber (TS-955)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
17	7.8	MBFM		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

**Wording for "DESCRIPTION" is to be provided by the Owner.**

**All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.**

**BID BOND**

**FOR**

**COASTAL PROTECTION AND RESTORATION AUTHORITY PROJECTS**

Date: \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_ of \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are held and firmly bound unto the State of Louisiana, Coastal Protection and Restoration Authority (Obligee), in the full and just sum of five (5%) percent of the total amount of this proposal, including all alternates, lawful money of the United States, for payment of which sum, well and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Surety represents that it is listed on the current U. S. Department of the Treasury Financial Management Service list of approved bonding companies as approved for an amount equal to or greater that the amount for which it obligates itself in this instrument or that it is a Louisiana domiciled insurance company with at least an A - rating in the latest printing of the A. M. Best's Key Rating Guide. If surety qualifies by virtue of its Best's listing, the Bond amount may not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide.

Surety further represents that it is licensed to do business in the State of Louisiana and that this Bond is signed by surety's agent or attorney-in-fact. This Bid Bond is accompanied by appropriate power of attorney.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas said Principal is herewith submitting its proposal to the Obligee on a Contract for:

\_\_\_\_\_  
NOW, THEREFORE, if the said Contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the Contract in writing and give a good and sufficient bond to secure the performance of the terms and conditions of the Contract with surety acceptable to the Obligee, then this obligation shall be void; otherwise this obligation shall become due and payable.

\_\_\_\_\_  
PRINCIPAL (BIDDER)

\_\_\_\_\_  
SURETY

BY: \_\_\_\_\_  
AUTHORIZED OFFICER-OWNER-PARTNER

BY: \_\_\_\_\_  
AGENT OR ATTORNEY-IN-FACT(SEAL)

**STATE OF** LOUISIANA

**PARISH OF** VERMILION

**ATTESTATIONS AFFIDAVIT**

**Before me**, the undersigned notary public, duly commissioned and qualified in and for the parish and state aforesaid, personally came and appeared Affiant, who after being duly sworn, attested as follows:

**LA. R.S. 38:2227 PAST CRIMINAL CONVICTIONS OF BIDDERS**

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| (a) Public bribery (R.S. 14:118)      | (c) Extortion (R.S. 14:66)        |
| (b) Corrupt influencing (R.S. 14:120) | (d) Money laundering (R.S. 14:23) |

B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- |  |  |
|--|--|
| (a) Theft (R.S. 14:67)                           | (f) Bank fraud (R.S. 14:71.1)                                |
| (b) Identity Theft (R.S. 14:67.16)               | (g) Forgery (R.S. 14:72)                                     |
| (c) Theft of a business record<br>(R.S.14:67.20) | (h) Contractors; misapplication of<br>payments (R.S. 14:202) |
| (d) False accounting (R.S. 14:70)                | (i) Malfeasance in office (R.S. 14:134)                      |
| (e) Issuing worthless checks<br>(R.S. 14:71)     |  |

**LA. R.S. 38:2212.10 Verification of Employees**

- A. At the time of bidding, Appearer is registered and participates in a status verification system to verify that all new employees in the state of Louisiana are legal citizens of the United States or are legal aliens.
- B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.
- C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.



**COLE'S BAYOU MARSH RESTORATION PROJECT**

**Name of Project**

**TV-63**

**Project No.**

**LA. R.S. 23:1726(B) Certification Regarding Unpaid Workers Compensation Insurance**

- A. R.S. 23:1726 prohibits any entity against whom an assessment under Part X of Chapter 11 of Title 23 of the Louisiana Revised Statutes of 1950 (Alternative Collection Procedures & Assessments) is in effect, and whose right to appeal that assessment is exhausted, from submitting a bid or proposal for or obtaining any contract pursuant to Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950 and Chapters 16 and 17 of Title 39 of the Louisiana Revised Statutes of 1950.
- B. By signing this bid /proposal, Affiant certifies that no such assessment is in effect against the bidding / proposing entity.

\_\_\_\_\_  
**NAME OF BIDDER**

\_\_\_\_\_  
**NAME OF AUTHORIZED SIGNATORY OF BIDDER**

\_\_\_\_\_  
**DATE**

\_\_\_\_\_  
**TITLE OF AUTHORIZED SIGNATORY OF BIDDER**

\_\_\_\_\_  
**SIGNATURE OF AUTHORIZED  
SIGNATORY OF BIDDER/AFFIANT**

**Sworn to and subscribed** before me by Affiant on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

## FOR INFORMATION ONLY

This document will be prepared by the Coastal Protection and Restoration Authority in the form appropriate for the project.

### CONTRACT BETWEEN OWNER AND CONTRACTOR AND PERFORMANCE AND PAYMENT BOND

This agreement entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by (CONTRACTOR NAME) hereinafter called the "Contractor", whose business address is \_\_\_\_\_, and the State of Louisiana Coastal Protection and Restoration Authority, herein represented by its Executive Director executing this contract, and hereinafter called the "Owner".

Witnesseth that the Contractor and the Owner, in consideration of premises and the mutual covenants; consideration and agreement herein contained, agree as follows:

Statement of Work: The contractor shall furnish all labor and materials and perform all of the work required to build, construct and complete in a thorough and workmanlike manner:

Project No. \_\_\_\_\_  
State ID No. \_\_\_\_\_ Site Code \_\_\_\_\_

in strict accordance with Contract Documents prepared by Owner.

It is recognized by the parties herein that said Contract Documents, including by way of example and not of limitation, the Plans, Specifications (including General Provisions, Special Provisions, and Technical Specifications), Any Addenda thereto, Instructions To Bidders, this Contract, Advertisement For Bids, Affidavit, Bid Form, Bonds (Bid, Performance, and Payment), any Submitted Post-Bid Documentation, Notice of Award, Notice to Proceed, Change Orders, and Claims, if any, impose duties and obligations upon the parties herein, and said parties thereby agree that they shall be bound by said duties and obligations. For these purposes, all of the provisions contained in the aforementioned Contract Documents are incorporated herein by reference with the same force and effect as though said Contract Documents were herein set out in full.

Time for Completion: The work shall be commenced on a date to be specified in a written order of the Owner and shall be completed within \_\_\_\_\_ consecutive calendar days from and after the said date.

Liquidated Damages: Contractor shall be assessed Liquidated Damages in the amount of \$ \_\_\_\_\_ per day for each consecutive calendar day which work is not complete beginning with the first day beyond the completion time.

Compensation to be paid to the Contractor: The Owner will pay and the Contractor will accept in full consideration for the performance of the contract the sum of \_\_\_\_\_ **Dollars (\$)** which sum represents the Contract Price.

Performance and Payment Bond: To these presents personally came and intervened \_\_\_\_\_, herein acting for \_\_\_\_\_, a corporation organized and existing under the laws of the State of \_\_\_\_\_, and duly authorized to transact business in the State of Louisiana, as surety, who declared that having taken cognizance of this contract and of the Construction Documents mentioned herein, he hereby in his capacity as its Attorney in Fact obligates his said company, as Surety for the said Contractor, unto the said Owner, up to the sum of \_\_\_\_\_ **Dollars (\$)**. By issuance of this bond, the surety acknowledges they are in compliance with R.S. 38:2219.

The condition of this performance and payment bond shall be that should the Contractor herein not perform the contract in accordance with the terms and conditions hereof, or should said Contractor not fully indemnify and save harmless the Owner, from all cost and damages which he may suffer by said Contractor's non-performance or should said Contractor not pay all persons who have and fulfill obligations to perform labor and/or furnish materials in the prosecution of the work provided for herein, including by way of example workmen, laborers, mechanics, and furnishers of materials, machinery, equipment and fixtures, then said Surety agrees and is bound to so perform the contract and make said payment(s).

Provided, that any alterations which may be made in the terms of the contract or in the work to be done under it, or the giving by the Owner of any extensions of time for the performance of the contract, or any other forbearance on the part of either the Owner or the Contractor to the other shall not in any way release the Contractor or the Surety from their liability hereunder, notice to the Surety of any such alterations, extensions or other forbearance being hereby waived.

The Contractor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Act of 1972, and contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

Contractor agrees not to discriminate in its employment practices, and will render services under this contract without regard to race, color, sex, religion, national origin, genetic information, age or disabilities. Any act of discrimination committed by Contractor or failure to comply with these statutory obligations when applicable shall be grounds for termination of this contract.

In Witness whereof, the parties hereto on the day and year first above written have executed this agreement in seven (7) counterparts, each of which shall, without proof or accountancy for the other counterparts, be deemed an original thereof.

**WITNESSES:**

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

\_\_\_\_\_

BY: \_\_\_\_\_

Michael Ellis, Executive Director

\_\_\_\_\_

\_\_\_\_\_

BY: \_\_\_\_\_

\_\_\_\_\_

SURETY: \_\_\_\_\_

\_\_\_\_\_

BY: \_\_\_\_\_

ATTORNEY IN FACT

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
TELEPHONE NUMBER

STATE OF LOUISIANA  
PARISH OF VERMILION

PROJECT NO.: TV-63

NAME: COLE'S BAYOU MARSH RESTORATION PROJECT

LOCATION: INTRACOASTAL CITY, LA

### **A F F I D A V I T**

Before me, the undersigned authority, duly commissioned and qualified within and for the State and Parish aforesaid, personally came and appeared \_\_\_\_\_ representing who, being by me first duly sworn deposed and said that he has read this affidavit and does hereby agree under oath to comply with all provisions herein as follows:

#### **PART I.**

Section 2224 of Part II of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

(1) That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

(2) That no part of the Contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the Contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for affiant.

#### **PART II.**

Section 2190 of Part I of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

That affiant, if an architect or engineer, or representative thereof, does not own a substantial financial interest, either directly or indirectly, in any corporation, firm, partnership, or other organization which supplies materials for the construction of a public work when the architect or engineer has performed architectural or engineering services, either directly or indirectly, in connection with the public work for which the materials are being supplied.

For the purposes of this Section, a "substantial financial interest" shall exclude any interest in stock being traded on the American Stock Exchange or the New York Stock Exchange.

That affiant, if subject to the provisions of this section, does hereby agree to be subject to the penalties involved for the violation of this section.

AFFIANT

\_\_\_\_\_

SWORN TO AND SUBSCRIBED BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2018.

\_\_\_\_\_  
NOTARY

## **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.

- a) 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.
- b) 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.
- c) 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.
- d) A.S.T.M.: American Society for Testing and Materials.
- e) Bid: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.
- f) Bidder: The person, association of persons, firm, or corporation submitting a proposal for the Work.
- g) Bidding Requirements: The Advertisement for Bids, Instructions to Bidders, Form of Bid Security, if any, and Bid Form with any supplements.
- h) 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 Contract.
- i) 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.
- j) Contract: The written agreement between the Owner and the Contractor which defines the work to be completed and shall be understood to also include all Contract Documents.

- k) Contract Documents: The Contract, all addenda which pertain 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.
- l) Contract Price: The moneys payable by the Owner to the Contractor for the Work in accordance with the Contract Documents as stated in the Contract.
- m) Contract Time: The number of calendar days specified in the Contract for completion of the Work, together with any extensions authorized through change orders.
- n) Contractor: The person, association of persons, firm, or corporation entering into the duly awarded Contract.
- o) Contracting Agency: The State of Louisiana, Coastal Protection and Restoration Authority (CPRA).
- p) 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.
- q) Design Report: A written report by the Engineer which provides the design methodology for the Work.
- r) Effective Date of the Contract: The date indicated in the Contract on which it becomes effective.
- s) Engineer: The State of Louisiana, Coastal Protection and Restoration Authority, or its designee.
- t) 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.
- u) 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 Coastal Protection and Restoration Authority in the form of a Change Order.
- v) Federal Sponsor: The federal agency which has been tasked, if applicable, to manage the implementation of the project.
- w) 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.
- x) Laboratory: The firm, company, or corporation which is used to test materials and is approved for use by the Engineer.



- y) 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.
- z) 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.
- aa) Milestone: A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to the Contract Times.
- bb) 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 Payment and Performance Bond and Non-Collusion Affidavit.
- cc) Notice to Proceed: The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.
- dd) Owner: The Owner is the State of Louisiana (State) which acts through the Contracting Agency.
- ee) Performance and Payment 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.
- ff) 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.
- gg) Project Site: The location where the Work is to be performed as stated in the Contract Documents.
- hh) Resident Project Representative: An authorized representative of the Engineer who is responsible to inspect the Work and materials furnished by the Contractor.
- ii) Right-of-way: That entire area reserved for constructing, maintaining, and protecting the proposed improvement, structures, and appurtenances of the Work.
- jj) 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.
- kk) 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.
- ll) 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.
- mm) State: The State of Louisiana.

- nn) Structures: Bridges, plugs, weirs, bulkheads, berms, dams, levees, and other miscellaneous construction encountered during the Work and not otherwise classified herein.
- oo) 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.
- pp) 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.
- qq) Successful Bidder: The lowest responsive and responsible Bidder whom the Owner makes an award.
- rr) Special Provisions: That part of the Contract Documents which amends or supplements these General Provisions.
- ss) 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.
- tt) Temporary Structures: Any non-permanent structure required while engaged in the prosecution of the Contract.
- uu) Work: All work specified herein or indicated on the Plans.
- vv) 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, 2016 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 Advertisement For Bids and the Instruction 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 Coastal Protection and Restoration Authority, 150 Terrace Avenue, Suite 100, Baton Rouge, Louisiana 70802.

#### 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 and all orders and decrees of bodies or tribunals having any jurisdiction or authority which may affect those employed for the execution of the Work or which may affect the conduct of the Work. 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, whether by the Contractor or by the Contractor's employees. 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 Contract 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 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 and/or Job Site Visit may be held at the location and on the date provided in the Advertisement For Bids. If the Pre-Bid Conference and/or Job Site Visit is stated in the Advertisement for Bids to be a MANDATORY Pre-Bid Conference and/or MANDATORY Job Site Visit, bids shall be accepted only from those bidders who attend the Pre-Bid Conference and/or Job Site Visit in its entirety. Failure to attend a mandatory Pre-Bid Conference and/or mandatory Job Site Visit in its entirety will result in a null or void Bid.

All questions shall be in writing and faxed or emailed to the Coastal Protection and Restoration contact person listed in the Advertisement For Bids after the Pre-Bid Conference and by the due date announced at the Pre-Bid conference. In order to ensure adequate response time, all questions and/or requests for clarification or interpretation of the Bid Documents should be received by the Coastal Protection and Restoration Authority at least seven days prior to the date for receipt of bids. Oral statements will not be binding or legally effective. The Coastal Protection and Restoration Authority will issue 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 Coastal Protection and Restoration Authority contact person for any additional information.

#### GP-6 NOTICE OF AWARD

The Owner, or its designated bidding agent, shall provide written notice to the Successful Bidder stating that the Owner will sign and deliver the Contract 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 the Instructions To Bidders, unless an extension is granted to the Contract Time as specified in GP-44. If the Bid contains an Alternate Bid(s), and the Alternate Bid(s) is awarded and included in the Contract, the Contract Time associated with the Alternate Bid(s) will be as provided in the Instructions To Bidders.

Unless otherwise noted in the Contract Documents, Contract Time will be on a calendar day basis. Contract Time shall consist of the number of calendar days stated in the Instructions to Bidders and the Contract beginning with the date noted in the written Notice to Proceed, including Saturdays, Sundays, holidays and non-work days.

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

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.

If adverse weather conditions are the basis for a claim for additional time, the Contractor shall document that weather conditions had an adverse effect on the scheduled construction. An increase in Contract Time due to weather shall not be cause for an increase in the contract sum.

## 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:

- a) Typical report form for the Bi-Weekly Progress Meeting;
- b) Typical form for Daily Progress Report;
- c) Hurricane and Severe Storm Plan;
- d) Site-specific Health and Safety Plan;
- e) 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).

- f) The personnel, material, subcontractors, fabricators, suppliers, types of equipment, and equipment staging areas the Contractor proposes to use for construction;
- g) Shop drawings, test results, and sample submittals;
- h) Survey layout and stakeout;
- i) All supplemental items specified in the Special Provisions.

The Work Plan shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the 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:

- a) All of the elements in the Work Plan, including updates;
- b) A work order issued from Louisiana One Call ordering all their subscribers in the project area to mark their utilities;
- c) 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 Progress schedule must reflect the anticipated adverse weather delays described in GP-7 on all weather dependent activities.

The Progress Schedule shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the 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 compliance with the Progress Schedule and Contract Time.

#### GP-10 DAILY PROGRESS REPORTS

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

- a) Date and signature of the author of the report;

- b) 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;
- c) Field notes of all surveys;
- d) Notes on all inspections;
- e) Details of Health and Safety meetings;
- f) A brief description of any Change Orders, Field Orders, Claims, Clarifications, or Amendments;
- g) Condition of all navigation aids (i.e., warning signs, lighted marker buoys) and any repairs performed on them;
- h) Weather conditions (adverse weather day, wind speed and direction, temperature, wave height, precipitation, etc.);
- i) The amount of time lost to severe weather or personnel injury, etc;
- j) Notes regarding compliance with the Progress Schedule;
- k) 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:

- a) 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.
- b) Notes from continuous monitoring of NOAA marine weather broadcasts and other local commercial weather forecasts.
- c) Equipment list with details on their ability to handle adverse weather and wave conditions.
- d) List of safe harbors or ports and the distance and travel time required to transfer equipment from the Project Site.
- e) Hard copies of any written approvals or operations schedules associated with the use of the safe harbors or ports.
- f) Method of securing equipment at the safe harbors or ports.

- g) 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.
- h) Methods which will be used to secure equipment left onsite during adverse weather conditions.
- i) Evacuation or immediate reaction plans to be taken by personnel for sudden storm occurrences.
- j) Operations procedures which will be used to secure critical dredging equipment such as spuds, swing wires, anchor wires, or tugs during adverse weather conditions.
- k) 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 Contract. 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:

- a) Any conflict, error, ambiguity, or discrepancy within the Contract Documents; or
- b) 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
- c) Any standard, specification, manual, or code (whether or not specifically incorporated by reference in the Bid Documents); or
- d) Instructions by a supplier.

The official form for a written clarification is provided in the appendices of the Contract Documents. 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, Field Order 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 Provisions 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:

- a) It is at least equal in quality, durability, appearance, strength, and design characteristics;
- b) There is no increase in any cost including capital, installation, or operating to the Owner;
- c) 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 the appendices of the Contract Documents. 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 known 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 811 or (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, such as the Department of the Army Permit, Coastal Use Permit, LDEQ Clean Water Permit, LDWF Fill Material License, and LADOTD highway crossing permit have been secured by the Owner. Permit conditions affecting the construction processes have been included in these Specifications. Copies of these permits will be provided to the Contractor at the pre-construction conference. These permits will not relieve the responsibility of the Contractor from obtaining any additional permits which may be needed to complete the Work. Copies of any special permits that are obtained by the Contractor must be submitted 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 may 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 cannot 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 ENVIRONMENTAL PROTECTION

The Contractor shall comply with and abide by all federal, state, and local laws and regulations controlling pollution of the environment, including air, water, and noise. The Contractor shall take precautions to prevent pollution of waters and wetlands with fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials and contaminants, and to prevent pollution of the atmosphere from particulate and gaseous matter, in accordance with all terms and conditions of federal, state, and local air and water pollution control laws and programs and their rules and regulations, including the federal Clean Air Act and the federal Clean Water Act.

The Contractor shall adhere to the provisions which require compliance with all standards, orders, or requirements contained under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, which prohibit the use under non-exempt Federal contracts, grants, or loans, of facilities included on the Environmental Protection Agency (EPA) list of Violating Facilities.

Construction operations in rivers, streams, lakes, tidal or coastal waters, reservoirs, canals, wetlands, and any other impoundments shall be restricted to areas where it is necessary to accomplish the Work and performed in accordance with any applicable federal, state, and local laws, regulations, permit requirements, and guidelines, and the Contractor shall conduct the Work in a manner that will not cause damaging concentrations of silt or pollution to water.

Contractor shall maintain and operate equipment to minimize noise, dust, and vibration near noise, dust and vibration-sensitive areas such as churches, hospitals, schools, and residential areas, and assure that any activities conducted near such areas are not unduly disruptive. Contractor shall maintain all equipment with properly functioning mufflers.

The Contractor shall be responsible for determining and utilizing any erosion and pollution control features or methods that may be necessary to comply with all federal, state, and local laws and regulations.

#### 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:

- a) The International Navigational Rules Act of 1977 (Public Law 95-75, 91 Stat. 308, or 33 U.S.C. 1601-1608); and
- b) 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 regulated by the USCG shall have the required USCG documentation that is current before being placed in service. A copy of any USCG Form 835 issued to the vessel in the preceding year shall be made available to the Owner and Engineer and a copy shall be on board the vessel. 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 dredges and quarter boats not subject to USCG inspection and certification or not having a current ABS classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS) and having at least 5 years' experience in commercial marine plant and equipment. The inspection certificate shall be posted in a public area on board each dredge and/or quarter boat.

All other plant and support vessels shall be inspected before being placed in service and at least annually by a qualified person. The inspection certificate shall be posted in a public area on board each plant and/or 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 will be reviewed within fourteen (14) days after being received by the Engineer. The Contractor shall allow the Engineer sufficient time for review, corrections, and re-submission 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 Bid 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:

- a) By application of the unit prices in the Contract to the quantities of the items involved or subsequently agreed upon; or
- b) 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 Bid 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 OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE

### 45.1 TERMINATION FOR CAUSE

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

- a) The Work is not begun within the time specified in the Notice to Proceed; or
- b) The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion; or
- c) The Contractor performs unsuitable, neglected or rejected work, refuses to remove materials; or
- d) The Work is discontinued; or
- e) The Work is not completed within the Contract Time or time extension; or
- f) Work is not resumed within a reasonable time after receiving a notice to continue; or
- g) The Contractor becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency; or
- h) The Contractor allows any final judgment to stand unsatisfied for a period of ten (10) days; or
- i) The Contractor makes an assignment for the benefit of creditors; or
- j) 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 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.

### 45.2 TERMINATION FOR CONVENIENCE

Owner may, at any time, terminate this Contract or any portion thereof, for Owner's convenience, upon providing written notice to the Contractor. In such case, Contractor shall be paid for all work completed through the date notice was provided (less payments already received) and reasonable demobilization and restocking charges incurred and reasonable overhead and profit based upon industry standards on the work performed. In no event shall the Contractor be entitled to payment of overhead and profit on work not performed. In the event it is determined that the Contractor was wrongfully terminated for cause, pursuant to Section GP 45.1 above, such termination shall be automatically converted to a termination for convenience under and payment made as provided under this Section.

#### 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.

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner after seven (7) calendar days written notice to the Contractor, may correct such deficiencies itself or by use of other contractors without prejudice to any other remedy it may have, and may deduct the cost thereof from the payment then or thereafter due to the Contractor.

#### 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 officers, employees, representatives, and/or agents from all suits, actions, 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) brought because of injuries or damage sustained by any person or property due to the operations of Contractor; due to negligence in safeguarding the Work, or use of unacceptable materials in constructing the Work; or any negligent act, omission, or misconduct of the Contractor; or claims or amounts recovered under the Workmen's Compensation Act or other law, ordinance, order, or decree; any money due the Contractor as considered necessary by the Owner for such purpose may be retained for use of the State or in case no money is due, the performance and payment bond may be held until such suits, actions, claims for injuries or damages have been settled and suitable evidence to that effect furnished to the Owner; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that adequate Workman's Compensation, Public Liability, and Property Damage Insurance are in effect.

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

Whenever the work provided for, or contemplated by the contract, have been satisfactorily completed, all punch list items completed and the final cleaning up is performed, the Engineer shall be notified in writing that said work is completed and ready for final inspection. The Engineer shall, unless otherwise provided, make the final inspection within a reasonable length of time after the receipt of such notification.

If all construction provided for in the contract is found completed to the Engineer's satisfaction, that inspection shall constitute the final inspection and the Engineer will make recommendation to the Owner for final acceptance and notify the Contractor in writing of this recommendation of acceptance.

#### 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

Notwithstanding any other provision of this Contract and all applicable and necessary time delays under Louisiana law, 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 1 year after final acceptance, unless otherwise specified in the Technical Specifications.

a) The guarantee shall include:

1. A written warranty by the manufacturer for each piece of installed project equipment or apparatus furnished under the Contract.
2. Any necessary repair or replacement of the warranted equipment during the guarantee period at no cost to the Owner.
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.

b) The guarantee shall exclude defects or damage caused by:

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

c) 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:

1. Observations by the Owner or Engineer; or
2. Recommendations by the Engineer or payment by the Owner; or
3. Use of the Work by the Owner; or
4. Issuance of a notice of acceptance by the Owner pursuant to the provisions of GP-53, or failure to do so; or
5. Any inspection, test, or approval by others; or
6. Any correction to non-conforming work by the Owner.

#### GP-57 DISPUTE RESOLUTION

The parties shall use their best efforts to resolve all disputes in an amicable fashion. Prior to filing suit by either party with respect to any claims, or disputes arising between the parties, the disputes shall be submitted first to non-binding mediation. The mediation shall be conducted in accordance with the Construction Industry Mediation Rules of the American Arbitration Association. If the parties cannot agree to a private mediator, then the mediator shall be selected by the American Arbitration Association, upon the filing of a demand for mediation.

If the dispute is not resolved by mediation within 60 days from the request for mediation, then either party may institute legal proceedings. Any litigation involving the Owner and arising under or related to the Contract or the bidding or award thereof shall be instituted exclusively in the 19<sup>th</sup> Judicial District Court in and for the Parish of East Baton Rouge, State of Louisiana.

#### GP-58 PAYMENT

The Owner hereby agrees to pay to the Contractor as full compensation for all work performed under the contract, and/or supplemental agreements thereto, the monetary value of the actual quantities in the completed work according to the schedule of unit prices and/or lump sum prices set forth in attached bid proposal and/or duly authorized supplements thereto, and made a part of the Contract.

Partial payments under the Contract shall be made at the request of the Contractor not more than once each month, based upon partial estimates agreed to by the Contractor and Engineer and shall be furnished to the Engineer and approved by the Engineer prior to transmittal to the Owner for approval and payment.

A Subcontractor Report (included in the appendices of the Contract Documents) should be submitted by the Contractor with each request for partial payment, to be used for informational purposes only by CPRA.

The partial estimates will be approximately stated, and all partial estimates and payments shall be subject to corrections in the estimate rendered following the discovery of any error in any previous estimates.

The payment of the partial estimate shall be taken as verification that the work has been performed and that its quality is satisfactory, however it will in no way serve as a release to the Contractor for the responsibility of any portions thereof. The work and any particulars relating thereto shall be subject to revision and adjustment by the Engineer and/or the Owner at any time prior to final payment, regardless of any previous action taken.

There shall be reserved from the payments provided for the Contract ten percent (10%) for contracts less than \$500,000 or five percent (5%) for contracts of \$500,000 or more, of the estimates submitted, said sum to constitute a trust fund for the protection of and payment to any person or persons, mechanic, subcontractor or materialmen who shall perform any labor upon such contract, or the doing of said work, and all persons who shall supply such person or persons or subcontractors with provisions and supplies for the carrying on of such work, and shall be withheld for a minimum of forty-five (45) calendar days after final acceptance of the completed contract.

After the expiration of the forty-five (45) calendar day period, the reserve in excess of a sum sufficient to discharge the claims of materialmen and laborers who have filed their claims, together with a sum sufficient to defray the cost of such action and to pay attorneys' fees, shall be paid to the Contractor.

The Contractor shall be responsible for obtaining and furnishing a clear lien and privilege certificate to the Owner at the expiration of the retainage period, and prior to payment of any reserve withheld.

#### GP-59 PAYMENTS WITHHELD

In addition to the percentage provided for in Section GP-58 of these General Provisions and in accordance with any other provision of this Contract, the Owner may withhold such amounts from any payment as may be necessary to protect himself from loss on account of:

- a) Defective work not remedied;
- b) Claims filed or reasonable evidence indicating probable filing of claims;
- c) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- d) Reasonable evidence that the Work will not be completed within the Contract time and that the unpaid balance would not be adequate to cover damages for the anticipated delay;
- e) A reasonable doubt that the contract can be completed within the time period remaining under the contract;
- f) Damage to another contractor;
- g) Failure to submit required reports; or
- h) Modifications of the contract which necessitate the execution of change orders prior to payment of funds.



Furthermore, nothing contained in this Section shall be deemed to limit the right of the Owner to withhold liquidated damages, as stated in the Instructions to Bidders, from any amounts which may be due and owed the Contractor for work performed under the contract.

#### GP-60 LIENS

Neither the final payment nor any part of the retained percentage shall come due until the Contractor shall deliver to the Owner a complete release of all liens arising out of this contract, or receipts in full in lieu thereof, and, if required by the Owner, an affidavit that so far as he has knowledge or information, the releases and receipts include all labor and material for which a lien could be filed; but if any subcontractor refuses to furnish a release or receipt in full, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against any lien, construction cost, or attorney's fees.

#### GP-61 EQUAL EMPLOYMENT OPPORTUNITY

The State of Louisiana is an equal opportunity employer, and looks to its Contractor, subcontractors, vendors and suppliers to take affirmative action to effect this commitment in its operations.

By submitting the bid proposal and executing the Contract, the Contractor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veterans Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, and the Age Act of 1975, and the Contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

The Contractor agrees not to discriminate in its employment practices, and will render services the Contract, without regard to their race, age, color, religion, sex, national origin, veteran status, political affiliation or disabilities. Any act of discrimination committed by the Contractor, or failure to comply with these statutory obligations when applicable, shall be grounds for termination of the Contract.

#### GP-62 ANTI-KICKBACK CLAUSE

The Contractor agrees to adhere to the mandate dictated by the Copeland "Anti-Kickback" Act which provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the completion of the work, to give up any part of the compensation to which he is otherwise entitled.

#### GP-63 SUSPENSION/DEBARMENT

Contractor certifies, by signing and submitting any bid, that their company, any subcontractors, or principals are not suspended or debarred by the General Services Administration (GSA) in accordance with the requirements in OMB Circular A-133. A list of parties who have been suspended or debarred can be viewed via the internet at [www.epls.gov](http://www.epls.gov).

Contractor agrees to secure from any contractor(s) and subcontractor(s) for the captioned project, certification that such contractor(s) and subcontractor(s) are not suspended, debarred or declared ineligible from entering into contracts with any department or agency of the Federal Government or of the State of Louisiana, or in receipt of a notice of proposed debarment or suspension.

Contractor shall provide immediate notice to Owner in the event of it or its contractor(s) or any subcontractor(s) being suspended, debarred or declared ineligible by any department or agency of the Federal Government or of the State of Louisiana, or upon receipt of a notice of a proposed debarment or suspension, either prior to or after execution of this Contract.

Upon receipt of notice of suspension, debarment, or declaration that Contractor or its contractor(s) or any subcontractor(s) is/are ineligible to enter into contracts with any department or agency of the Federal Government or of the State of Louisiana, either prior to or after execution of this Contract, Owner reserves the right to review cause for said debarment, suspension, or declaration of ineligibility, and to terminate this Contract pursuant to the terms of GP-45 OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE, or take such other action it deems appropriate under this Contract.

#### **GP-64 LOUISIANA FIRST HIRING ACT**

Contractor shall comply with the Louisiana First Hiring Act (La. R.S. 39:2201-2204), which requires that within ten (10) days of executing the Contract, Contractor shall submit the following information to the Louisiana Workforce Commission:

1. The number and types of jobs anticipated for the Work.
2. The skill level of the jobs anticipated for the Work.
3. The wage or salary range for each job anticipated for the Work.
4. Methods, if any, that the Contractor will use to recruit unemployed persons or person employed in low wage jobs to fill job openings for the Work.

#### **END OF PART I - GENERAL PROVISIONS**

## **PART II SPECIAL PROVISIONS**

### **SP-1 LOCATION OF WORK**

The Project Site is located in southern Vermilion Parish in the vicinity of Freshwater Bayou and Little Vermilion Bay. Approximate coordinates for the center of the project are 29°43'11.04" N and 92°13'24.85" W (NAD 83).

The Project Site is only accessible by boat. The General Notes in the Plans give information on the tides and draft requirements in this area. A boat launch is located in Intracoastal City, LA and directions are provided in Appendix G.

### **SP-2 WORK TO BE DONE**

The Contractor shall provide all labor, materials, and equipment necessary to perform the Work. The Work shall include, but not be limited to, mobilization and demobilization to the Project Site, surveying, excavation of the marsh creation borrow area access corridor, dredging and placement of material in the marsh creation fill areas, installation of water control structures, earthwork, construction of earthen plugs, construction of earthen containment dikes, and installation of settlement plates. The Work shall be performed in accordance with these Specifications and in conformity to lines, grades, and elevations shown on the Plans or as directed by Engineer. Quantity calculations, layouts, shop drawings, and construction sequencing of these items shall be provided in the Work Plan. The major tasks associated with the Work are described as follows:

- 2.1 **Site Examination:** The Contractor shall examine the Project Site and make determinations of the character of the material to be dredged and the site conditions at the marsh creation fill areas, water control structure corridors, and earthen plugs. Material such as logs, stumps, snags, tires, scrap, debris and other obstructions may be encountered within the Project Site. No separate payment for removal and disposal of these obstructions shall be made.
- 2.2 **Surveying:** Prior to construction, a Pre-Construction Survey shall be performed on the marsh creation fill areas, marsh creation borrow area, earthen containment dikes, earthen containment dike borrow areas, water control structures, earthen plugs, water control structure and earthen plug borrow areas, dredge pipeline corridors, equipment access corridors, marsh creation borrow area access corridor and temporary placement areas, grade stakes, and settlement plates. During construction, Process surveys shall be performed for partial Acceptance and payment. After construction is complete, the Contractor shall develop an As-Built Survey for final Acceptance of all the Work.
- 2.3 **Channels:** If the Contractor proposes to mobilize the hydraulic dredge to the marsh creation borrow area in Little Vermilion Bay via Freshwater Bayou, a temporary access channel may be dredged in accordance with the Plans and these Specifications.
- 2.4 **Earthen Containment Dikes:** Earthen containment dikes shall be constructed from in-situ soils in order to create full perimeter containment for Marsh Creation Areas 1, 2, and 3 as shown on the Plans.

- 2.5 Dredge Pipeline Corridor: A hydraulic dredge pipeline, which facilitates the transfer of dredge material from the marsh creation borrow area to the marsh creation fill areas, shall be installed along the corridors shown on the Plans.
- 2.6 Marsh Creation Borrow and Fill Areas: Fill material shall be dredged from the marsh creation borrow area in Little Vermilion Bay and placed into Marsh Creation Areas 1, 2, and 3 as shown on the Plans.
- 2.7 Settlement Plates: Settlement plates shall be installed in the marsh creation fill areas as shown on the Plans.
- 2.8 Instrumented Settlement Plates: Instrumented settlement plates shall be fabricated and installed in Marsh Creation Area 3 as shown on the Plans, or as directed by the Engineer.
- 2.9 Grade Stakes: Grade stakes shall be installed in the marsh creation fill areas as shown on the Plans.
- 2.10 Water Control Structures: The following Work shall be performed on the Water Control Structures:
  - 2.10.1 Structure 1: A trench shall be excavated through the existing earthen berm to facilitate the placement of three (3) forty-two (42) inch diameter corrugated metal pipes within the trench. Three (3) check valves shall be installed as shown on the Plans. Intake and outfall channels shall be excavated as shown on the Plans. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown in the Plans using material from the trench excavation. Non-woven geotextile and articulated concrete block mats shall be installed to armor the berm.
  - 2.10.2 Structure 2: A trench shall be excavated through the existing earthen berm to facilitate the placement of two (2) forty-two (42) inch diameter corrugated metal pipes within the trench. Two (2) check valves shall be installed as shown on the Plans. Intake and outfall channels shall be excavated as shown on the Plans. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown on the Plans using material from the trench excavation. Non-woven geotextile and articulated concrete block mats shall be installed to armor the berm.
  - 2.10.3 Structure 3: A trench shall be excavated through the existing earthen berm to facilitate the placement of one (1) forty-two (42) inch diameter corrugated metal pipe within the trench. One (1) check valve shall be installed as shown on the Plans. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown on the Plans using material from the trench excavation and from the borrow area located in the adjacent oil field canal and non-woven geotextile and articulated concrete block mats shall be installed to armor the berm.
  - 2.10.4 Earthen Plug 3: An earthen berm shall be constructed within the existing breach using material from the water control structure and earthen plug borrow area located in the adjacent oil field canal.

- 2.10.5 Structure 4: One (1) forty-two (42) inch diameter corrugated metal pipe shall be installed at the existing breach location. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown on the Plans using material from the water control structure borrow area located in the adjacent oil field canal. Non-woven geotextile and articulated concrete block mats shall be installed to armor the berm.
- 2.10.6 Structure 5: Three (3) forty-two (42) inch diameter corrugated metal pipes shall be installed at the existing breach location. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown on the Plans using material from the water control structure borrow area located in the adjacent oil field canal. Three (3) check valves shall be installed as shown on the Plans. Non-woven geotextile and articulated concrete block mats shall be installed to armor the berm.
- 2.10.7 Structure 6: The existing culvert and associated supports and hardware shall be removed and a trench shall be excavated through the existing earthen berm to facilitate the placement of three (3) forty-two (42) inch diameter corrugated metal pipes within the trench. Three (3) check valves shall be installed as shown on the Plans. Intake and outfall channels shall be excavated as shown on the Plans. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown on the Plans using material from the trench excavation. Non-woven geotextile and articulated concrete block mats shall be installed to armor the berm.
- 2.10.8 Earthen Plug 6: An earthen berm shall be constructed within the existing breach using material from the earthen plug borrow area located in the adjacent oil field canal.
- 2.10.9 Structure 7: Three (3) forty-two (42) inch diameter corrugated metal pipes shall be placed within the existing breach. Three (3) check valves shall be installed as shown on the Plans. Intake and outfall channels shall be excavated as shown on the Plans. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown on the Plans using material from the water control structure borrow area located in the adjacent oil field canal. Non-woven geotextile and articulated concrete block mats shall be installed to armor the berm.
- 2.10.10 Structures 8: A trench shall be excavated through the existing earthen berm to facilitate the placement of three (3) forty-two (42) inch diameter corrugated metal pipes within the trench. Three (3) check valves shall be installed as shown on the Plans. Intake and outfall channels shall be excavated as shown on the Plans. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown on the Plans using material from the trench excavation. Non-woven geotextile and articulated concrete block mats shall be installed to armor the berm.

- 2.10.11 **Structure 9:** A trench shall be excavated through the existing earthen berm to facilitate the placement of three (3) forty-two (42) inch diameter corrugated metal pipes within the trench. Three (3) check valves shall be installed as shown on the Plans. Intake and outfall channels shall be excavated as shown on the Plans. Timber piles shall be driven and timber joists shall be installed as shown on the Plans. The earthen berm shall be constructed to the grade shown on the Plans using material from the trench excavation. Non-woven geotextile and articulated concrete block mats shall be installed to armor the berm
- 2.11 **Use of Equipment:** The equipment used for the Work shall be operated within the boundaries of the Project Site and away from existing vegetated wetlands or any other sensitive areas. The Contractor shall be responsible for returning all disturbed wetlands to pre-existing conditions at no expense to the Owner.
- 2.12 **Existing Infrastructure:** The Contractor shall be responsible for investigating, locating, and protecting all existing facilities, structures, services, and pipelines on, above, or under the surface of the area where dredging, excavation, or Work including equipment crossings, dredge pipeline crossings, etc. is to be performed. The Owner will not be held responsible for damage to the Contractor's equipment, employees, subcontractors, adjacent property owners, or anyone else connected with the project due to encountering objects above and/or below the water line.

Existing infrastructure, where indicated on the Plans, are shown only to the extent such information was made available to or discovered by the Engineer during design. There is no guarantee as to the accuracy or completeness of such information, and all responsibility for the accuracy and completeness is expressly disclaimed. If the Contractor fails to discover an underground installation and damages the same, the Contractor shall be responsible for the cost of the repair of the infrastructure plus the cost of any environmental damage and clean up.

### SP-3 CONTRACT MILESTONES

<b>Milestone</b>	<b>Locations and Recipient</b>	<b>Date Due</b>
Bid Advertisement	Publications	As advertised
Mandatory Pre-Bid Conference and Non-Mandatory Site Visit (GP-5)	Location provided in Advertisement for Bids	Provided in Advertisement for Bids
Questions on Bid Documents (GP-5 and SP-5)	Submit to CPRA	Provided in Instructions to Bidders
Effective Date of Contract	Contractor and Owner	Stated in Contract
Start of Contract Time	Contractor and Owner	Stated in Notice to Proceed
List of all Subcontractors (GP-19)	Submit to Engineer	Prior to awarding any subcontracts
Work Plan (GP-8 and SP-7)	Submit to Engineer	14 days prior to Pre-Construction Conference
Progress Schedule (GP-9)	Submit to Engineer	14 days prior to starting construction, monthly thereafter
Daily Progress Report (GP-10)	Submit to Resident Project Representative	Daily during construction

<b>Milestone</b>	<b>Locations and Recipient</b>	<b>Date Due</b>
USCG Notice to Mariners (SP-16)	Submit to Engineer	Prior to mobilization of the dredge and dredge pipeline
Pre-Construction Conference (GP-14)	Contractor, Engineer and Resident Project Representative	Scheduled by the Engineer after the Notice to Proceed is issued
Progress Meetings and Reports (GP-13, GP-39)	Engineer and Resident Project Representative	Bi-weekly
Pre-Construction Survey (TS-210)	Submit to Engineer	14 working days prior to anticipated start of Construction
Process Surveys (TS-210)	Submit to Engineer	5 working days after notification that field data collection for each process survey is complete
As-Built Survey (TS-210)	Submit to Engineer	5 working days prior to Final Inspection
Written Notice of Completion of Work	Submit to Engineer	Upon completion of the Work
End of Contract Time	Contractor and Owner	Provided in Instructions to Bidders

#### SP-4 DELIVERABLES

- 4.1 Prior to Construction: The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference:
  - 4.1.1 Updates to the Work Plan and Progress Schedule based on comments from the Engineer;
  - 4.1.2 Updates to the dredge or equipment data sheets;
  - 4.1.3 Proposed changes to the layout of the Work;
  - 4.1.4 Records of communication between the Contractor and private property owners, pipeline operators, government agencies, etc.
- 4.2 During Construction: The Contractor shall provide the following information to the Engineer during construction:
  - 4.2.1 The results of all surveys and calculations as specified in TS-210;
  - 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 and monitoring reports;
  - 4.2.5 All Change Orders, Field Orders, Claims, Requests for Information, and Amendments;
  - 4.2.6 Results of any materials testing;

- 4.2.7 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;
- 4.3 Post Construction: The following documents shall also be submitted to the Engineer after the completion and final Acceptance of the Work:
- 4.3.1 As-Built Drawings shall show revisions such as field or change orders and shall be noted, shown in red and be easily distinguishable from the original design.

#### SP-5 CONTACT INFORMATION

Prior to the Bid opening date, the Bidder shall submit all questions regarding the Bid Documents in writing to the Owner as follows:

Coastal Protection and Restoration Authority (CPRA)  
150 Terrace Avenue, Suite 100  
Baton Rouge, LA 70802  
Attn : Allison Richard  
Phone: 225-342-5453  
Fax: 225-800-5599  
Email: [cpra.bidding@la.gov](mailto:cpra.bidding@la.gov)

After execution of the contract between Owner and Contractor, the successful Contractor shall direct all communications to the following:

**CPRA Field Engineer**  
Melvin Guidry  
635 Cajundome Blvd., Suite 203A  
Lafayette, LA 70506  
E-mail: [melvin.guidry@la.gov](mailto:melvin.guidry@la.gov)  
Phone: 337-482-0682  
Fax: 337-482-0687

**CPRA Project Engineer**  
Amanda Taylor  
150 Terrace Avenue  
Baton Rouge, LA 70802  
Email : [amanda.taylor@la.gov](mailto:amanda.taylor@la.gov)  
Phone: 225-342-9419  
Fax: 225-342-4591

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 INSURANCE AND BONDS

The Contractor shall purchase and maintain without interruption for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, its agents, representatives, employees or subcontractors. The duration of the contract shall be from the inception of the contract until the date of final payment.

##### 6.1 Minimum Scope and Limits of Insurance

###### 6.1.1 Worker's Compensation



Worker's Compensation insurance shall be in compliance with the Worker's Compensation law of the State of Louisiana. Employers Liability is included with a minimum limit of \$500,000 per accident/per disease/per employee. If Work is to be performed over water and involves maritime exposure, applicable LHWCA, Jones Act or other maritime law coverage shall be included and the Employers Liability limit increased to a minimum of \$1,000,000. A.M. Best's insurance company rating requirement may be waived for Worker's compensation coverage only.

#### 6.1.2 Commercial General Liability

Commercial General Liability insurance, including Personal and Advertising Injury Liability and Products and Completed Operations Liability, shall have a minimum limit per occurrence based on the project value. The Insurance Services Office (ISO) Commercial General Liability occurrence coverage form CG 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. Claims-made form is unacceptable.

The aggregate loss limit must apply to each project. ISO form CG 25 03 (current form approved for use in Louisiana), or equivalent, shall also be submitted. The State project number, including part number, and project name shall be included on this endorsement.

#### **COMBINED SINGLE LIMIT (CSL) PER OCCURRENCE**

The required minimum combined single limit amount of insurance shall be as provided below:

<b><u>Initial Contract Amount</u></b>	<b><u>Minimum Insurance</u></b>
<b>Up to \$1,000,000</b>	<b>\$1,000,000</b>
<b>From \$1,000,001 to \$2,000,000</b>	<b>\$2,000,000</b>
<b>Over \$2,000,000</b>	<b>\$5,000,000</b>

#### 6.1.3 Automobile Liability

Automobile Liability Insurance shall have a minimum combined single limit per occurrence of \$1,000,000. ISO form number CA 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. This insurance shall include third-party bodily injury and property damage liability for owned, hired and non-owned automobiles. If any non-licensed motor vehicles are engaged in operations within the terms of the contract on the site of the work to be performed thereunder, such insurance shall cover the use of any such vehicles.

NOTE: If the Contractor does not own an automobile and an automobile is utilized in the execution of the contract, then hired and non-owned coverage is acceptable. If an automobile is not utilized in the execution of the contract, then automobile coverage is not required.

#### 6.1.4 Excess Umbrella

Excess Umbrella Insurance may be used to meet the minimum requirements for General Liability and Automobile Liability only.

6.1.5 Pollution Liability (*required when asbestos or other hazardous material abatement is included in the contract*)

Pollution Liability insurance, including gradual release as well as sudden and accidental, shall have a minimum limit of not less than \$1,000,000 per claim. A claims-made form will be acceptable. A policy period inception date of no later than the first day of anticipated Work under this contract and an expiration date of no earlier than 30 days after anticipated completion of all Work under the contract shall be provided. There shall be an extended reporting period of at least 24 months, with full reinstatement of limits, from the expiration date of the policy. The policy shall not be cancelled for any reason, except non-payment of premium.

6.1.6 Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and accepted by the Owner. The Contractor shall be responsible for all deductibles and self-insured retentions.

6.2 Other Insurance Provisions

6.2.1 The policies are to contain, or be endorsed to contain, the following provisions:

6.2.1.1 Worker's Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the Owner, its officers, agents, employees and volunteers for losses arising from Work performed by the Contractor for the Owner.

6.2.1.2 General Liability Coverage

6.2.1.2.1 The Owner, its officers, agents, employees and volunteers are to be added as additional insureds as respects liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor, premises owned, occupied or used by the Contractor. ISO Form CG 20 10 (current form approved for use in Louisiana), or equivalent, is to be used.

6.2.1.2.2 The Contractor's insurance shall be primary as respects the Owner, its officers, agents, employees and volunteers. The coverage shall contain no special limitations on the scope of protection afforded to the Owner, its officers, officials, employees or volunteers. Any insurance or self-insurance maintained by the Owner shall be excess and non-contributory of the Contractor's insurance

6.2.1.2.3 The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the policy limits.

#### 6.2.1.3 All Coverages

6.2.1.3.1 Coverage shall not be canceled, suspended, or voided by either party (the Contractor or the insurer) or reduced in coverage or in limits except after 30 days written notice has been given to the Owner. Ten-day written notice of cancellation is acceptable for non-payment of premium. Notifications shall comply with the standard cancellation provisions in the Contractor's policy.

6.2.1.3.2 Neither the acceptance of the completed Work nor the payment thereof shall release the Contractor from the obligations of the insurance requirements or indemnification agreement.

6.2.1.3.3 The insurance companies issuing the policies shall have no recourse against the Owner for payment of premiums or for assessments under any form of the policies.

6.2.1.3.4 Any failure of the Contractor to comply with reporting provisions of the policy shall not affect coverage provided to the Owner, its officers, agents, employees and volunteers.

#### 6.2.2 Acceptability of Insurers

All required insurance shall be provided by a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located. Insurance shall be placed with insurers with an A.M. Best's rating of **A-:VI or higher**. This rating requirement may be waived for Worker's compensation coverage only.

If at any time an insurer issuing any such policy does not meet the minimum A.M. Best rating, the Contractor shall obtain a policy with an insurer that meets the A.M. Best rating and shall submit another certificate of insurance as required in the contract.

#### 6.2.3 Verification of Coverage

Contractor shall furnish the Owner with Certificates of Insurance reflecting proof of required coverage. The Certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The Certificates are to be received and approved by the Owner before Work commences and upon any contract renewal thereafter. The Certificate Holder must be listed as follows:

State of Louisiana  
Coastal Protection and Restoration Authority  
150 Terrace Avenue  
Baton Rouge, LA, 70802  
Attn: Project # TV-63 (Cole's Bayou Marsh Restoration Project)

In addition to the Certificates, Contractor shall submit the declarations page and the cancellation provision endorsement for each insurance policy. The Owner reserves the right to request complete certified copies of all required insurance policies at any time.

Upon failure of the Contractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of the Owner, may be suspended, discontinued or terminated. Failure of the Contractor to purchase and/or maintain any required insurance shall not relieve the Contractor from any liability or indemnification under the contract.

If the Contractor does not meet the insurance requirements at policy renewal, at the option of the Owner, payment to the Contractor may be withheld until the requirements have been met, OR the Owner may pay the renewal premium and withhold such payment from any monies due the Contractor, OR the contract may be suspended or terminated for cause.

#### 6.2.4 Subcontractors

Contractor shall include all subcontractors as insureds under its policies OR shall be responsible for verifying and maintaining the certificates provided by each subcontractor. Subcontractors shall be subject to all of the requirements stated herein. The Owner reserves the right to request copies of subcontractor's certificates at any time.

If Contractor does not verify subcontractors' insurance as described above, Owner has the right to withhold payments to the Contractor until the requirements have been met.

#### 6.2.5 Worker's Compensation Indemnity

In the event the Contractor is not required to provide or elects not to provide Worker's compensation coverage, the parties hereby agree the Contractor, its Owners, agents and employees will have no cause of action against, and will not assert a claim against, the State of Louisiana, its departments, agencies, agents and employees as an employer, whether pursuant to the Louisiana Worker's Compensation Act or otherwise, under any circumstance. The parties also hereby agree that the State of Louisiana, its departments, agencies, agents and employees shall in no circumstance be, or considered as, the employer or statutory employer of Contractor, its Owners, agents and employees. The parties further agree that Contractor is a wholly independent Contractor and is exclusively responsible for its employees, Owners, and agents. Contractor hereby agrees to protect, defend, indemnify and hold the State of Louisiana, its departments, agencies, agents and employees harmless from any such assertion or claim that may arise from the performance of this contract.

#### 6.2.6 Indemnification/Hold Harmless Agreement

Contractor agrees to protect, defend, indemnify, save, and hold harmless, the State of Louisiana, all State Departments, Agencies, Boards and Commissions, its officers, agents, servants, employees and volunteers, from and against any and all claims, damages, expenses and liability arising out of injury or death to any person or the damage, loss or destruction of any property which may occur, or in any way grow out of, any act or omission of Contractor, its agents, servants and employees, or any and all costs, expenses and/or attorney fees incurred by Contractor as a result of any claims, demands, suits or causes of action, except those claims, demands, suits or causes of action arising out of the negligence of the State of Louisiana, all State De-

partments, Agencies, Boards, Commissions, its officers, agents, servants, employees and volunteers.

Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands, suits or causes of action at its sole expense and agrees to bear all other costs and expenses related thereto, even if the claims, demands, suits, or causes of action are groundless, false or fraudulent.

### 6.3 Performance and Payment Bond

#### 6.3.1 Recordation of Contract and Bond [38:2241A(2)]

The Contractor shall record within thirty (30) days the Contract Between Owner and Contractor, and Performance and Payment Bond with the Clerk of Court in the Parish in which the Work is to be performed. The Contractor shall obtain a Certificate of Recordation from the Clerk of Court and forward this Certificate immediately to the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids. No requests for payment will be processed until receipt of the Certificate of Recordation.

### SP-7 WORK PLAN SUPPLEMENTAL

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

- 7.1 The field equipment, methodology and software to be used for survey data collection, post-processing, and calculations of quantities;
- 7.2 Hydraulic Dredge Data Sheet in Appendix K;
- 7.3 Equipment Data Sheet in Appendix L;
- 7.4 Layout of equipment staging areas;
- 7.5 Layout and schedule for construction of the earthen containment dikes;
- 7.6 Layout and schedule for construction of the internal training dikes if proposed to be constructed by the Contractor;
- 7.7 Dike breach repair procedures and communications protocol;
- 7.8 Layout and schedule for dredging the marsh creation borrow area
- 7.9 Layout and schedule for dredging the water control structure borrow areas and marsh creation borrow area access corridor;
- 7.10 Type, diameter, and length of dredge pipeline;
- 7.11 Layout and schedule for installing and removing the dredge pipeline and installing and removing booster pumps;
- 7.12 Layout for all equipment access routes;

- 7.13 Layout and schedule for fill placement into the marsh creation fill areas;
- 7.14 Layout and schedule for dewatering the marsh creation fill areas;
- 7.15 Layout and schedule for the construction of the water control structures and earthen plugs.

#### SP-8 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 five-thousand four hundred seventy dollars (\$5,470) 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. Weather days will not be considered beyond the Contract Time.

#### SP-9 TRANSPORTATION

The Contractor shall provide a safe and reasonable means of transportation to and from the Boat Launch and Project Site for the Engineer, Resident Project Representative, and the Federal Sponsor throughout the Work. The schedule and pickup location shall be arranged by the Engineer, Resident Project Representative, 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. The Contractor shall provide daily access to a shallow draft boat (4 passenger capacity) to properly inspect the various project features during the duration of construction activities. 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. 3, "General Mobilization and Demobilization (TS-102)".

#### 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 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. 3, "General Mobilization and Demobilization (TS-102)."

#### SP-11 LANDOWNER AND PIPELINE REQUIREMENTS

The Owner has executed temporary easement, servitude, or right-of-way agreements required to perform the Work at the Project Site from the landowners, utilities and pipeline operators (Grantors) listed in the Plans. Copies of the executed agreements are included in the land rights memorandum in Appendix E. The Contractor shall abide by the stipulations set forth by the executed agreements. The Contractor shall notify all grantors at least five (5) days prior to performing the Work or as otherwise stipulated in the executed agreements.

The Contractor shall add all grantors listed in the Landrights Memorandum in Appendix E as additional insured. 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.

No access, excavation, anchors or spuds shall be permitted within one hundred (100) feet of the right-of-way of any pipeline or utility unless specified otherwise in the Contract Documents. No dredging shall be permitted within two hundred (200) feet of any existing pipeline or utility in the marsh creation borrow area unless specified otherwise in the Contract Documents.

#### SP-12 OYSTER LEASE RESTRICTIONS

There are no known existing oyster leases near or within the boundaries of the Project Site.

#### SP-13 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 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 not resume work at location without approval from the Engineer.

#### SP-14 NAVIGATION

The Work shall be performed in accordance with the Navigable Waters and Wetlands Subsection 107.09 of the latest edition of the Louisiana Standard Specification for Roads and Bridges. Navigable waterways shall not be impaired except as allowed by applicable laws or regulations. Excavation of access channels shall not be permitted unless otherwise specified in the Contract Documents. It is the responsibility of the Contractor to select equipment that can navigate from a maintained navigation channel to the Project Site without excavation existing water bottoms unless otherwise specified in the Contract Documents. All equipment shall remain floating at all times during transit to the Project Site. The Contractor shall obtain NOAA Nautical Charts and/or other charts to become familiar with the water bottom depths in the vicinity of the Project Site.

#### SP-15 NOTICE TO MARINERS

The Contractor shall contact the Eighth Coastal Region District of the United States Coast Guard at least 30 days prior to mechanical dredging, mobilization of the hydraulic dredge, and installation of the dredge pipeline to provide all necessary information regarding the layout and schedule for the entire dredging operation. The United States Coast Guard shall publish this information in the local notice to mariners. A copy of the original notice and all updates shall be provided to the Engineer as specified by SP-3.

#### SP-16 AIDS TO NAVIGATION

The Contractor shall contact the Eighth Coastal Region District of the United States Coast Guard and determine the type and location of aids to navigation that are required to be installed or removed in order to safely perform the Work. The types of aids to navigation may include warning signs, buoys, beacons or lights. The Contractor shall also submit a permit application and obtain a permit from the Eighth United States Coast Guard District prior to installation or removal of any aids to navigation. The permit application shall include the type, position, color, and dates for installation or removal of all aids to navigation. New aids to navigation shall not be installed in a manner which conflicts with existing aids to navigation. The Contractor shall not otherwise remove, modify, obstruct, willfully damage, make fast to or interfere with any existing aids to navigation. The Contractor shall provide a copy of the permit and permit application at least seven (7) days prior to mobilization. The costs associated with installing, maintaining, and removing aids to navigation shall be included in Bid Item No. 3, "General Mobilization and Demobilization (TS-102)".

#### SP-17 ADJUSTMENT OF QUANTITIES

The Owner has the right to adjust quantities for contract items 25% higher or 25% lower without an adjustment of the unit price during construction. The contract time may be extended by the Owner if quantities are adjusted higher.

### **END OF PART II - SPECIAL PROVISIONS**



### **PART III TECHNICAL SPECIFICATIONS**

#### **TS-100 HYDRAULIC DREDGE MOBILIZATION AND DEMOBILIZATION**

- 100.1 Scope: The Contractor shall furnish all labor and equipment necessary to mobilize a hydraulic dredge and any necessary booster pumps to the Marsh Creation Borrow Area in order to perform the Work. The Contractor shall demobilize the equipment from the Project Site upon Acceptance of all marsh creation fill areas. This section shall exclude the Work and cost of operating and maintaining the hydraulic dredge and booster pumps, and all items specified in TS-101, TS-102, and TS-400.
- 100.2 Arbitrary Mobilization by Contractor: The Owner shall pay for only one mobilization and demobilization of the hydraulic dredge. Should the Contractor demobilize the hydraulic dredge prior to completing the Work, subsequent remobilization of the dredge shall be performed at no cost to the Owner.
- 100.3 Hydraulic Dredge: The Contractor shall utilize a hydraulic cutter head dredge in the Marsh Creation Borrow Area. No other type of dredge will be allowed. The dredge shall be in satisfactory working condition and subject to inspection by the Engineer or Resident Project Representative at all times.
- 100.3.1 Selection: The Contractor shall select the most appropriate size of hydraulic dredge and booster pump(s) which will efficiently perform the Work within the Contract Time, maintain the integrity of the earthen containment dikes during fill placement and achieve the construction fill elevations of the marsh creation fill areas within the specified tolerances.
- The Contractor shall select a hydraulic dredge that can access the Marsh Creation Borrow Area without conflicting with existing infrastructure or excavating additional access channels other than shown on the Plans. The maximum attainable draft for the hydraulic dredge to access the Marsh Creation Borrow Area shall be confirmed by the Contractor but is estimated to be approximately ten (10) feet. The hydraulic dredge shall remain floating at all times during the Work.
- 100.3.2 Hydraulic Dredge Data Sheet: The Hydraulic Dredge Data Sheet in Appendix K shall be included in the Bid. Submittal of the Hydraulic Dredge Data Sheet shall constitute a certificate that the described equipment is available to, and under control of, the Contractor. The data is pertinent to the evaluation of the proposed dredge and its capability to perform the Work. The Contractor may omit data or information that is considered to be proprietary.
- 100.3.3 Booster Pump: The Equipment Data Sheet in Appendix L shall be included in the Bid for each booster pump that is proposed to perform the Work. The Contractor may omit data or information that is considered to be proprietary.

- 100.4 Ratio of Effort: Sixty percent (60%) of the Contract cost for this bid item will be paid to the Contractor after mobilization of the hydraulic dredge and a minimum of five-hundred (500) cubic yards of material has been dredged from the marsh creation borrow area and placed into the marsh creation fill area as measured by in-line density meter or Process survey. Forty percent (40%) of the Contract cost for this bid item will be paid to the Contractor after the hydraulic dredge is removed from the marsh creation borrow area and after Acceptance of the marsh creation fill areas.
- 100.5 Justification of Costs: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit prices in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Item Nos. 2 and 3 as determined by the Engineer. This determination by the Engineer is not subject to appeal.
- 100.6 Measurement and Payment: Payment shall be made at the Contract Lump Sum price for Bid Item No. 1, "Hydraulic Dredge Mobilization and Demobilization (TS-100)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of Work. The Engineer may require mobilization of the hydraulic dredge at no cost to the Owner if additional fill material is required to attain the specified tolerances for the construction marsh fill elevations in the marsh creation fill areas.

#### TS-101 DREDGE PIPELINE MOBILIZATION, INSTALLATION AND DEMOBILIZATION

- 101.1 Scope: The Contractor shall furnish all of the labor, equipment and materials necessary to mobilize, install, remove and demobilize the dredge pipeline and associated appurtenances which will be utilized to perform the Work. This section shall exclude the Work and cost associated with all items specified in TS-100, TS-102 and TS-400.
- 101.2 Dredge Pipeline: The Contractor shall utilize a pipeline to transfer dredge slurry material from the Marsh Creation Borrow Area to the marsh creation fill areas. The dredge pipeline shall be subject to inspection by the Engineer or Resident Project Representative at all times.
- 101.2.1 Selection: The Contractor shall select the most appropriate type, diameter and length of the dredge pipeline which will efficiently perform the Work.
- 101.2.2 Installation: The dredge pipeline shall be installed from the Marsh Creation Borrow Area to the marsh creation fill areas along the corridors shown on the Plans. Proposed modifications to the corridor shall be submitted in the Work Plan and approved by the Engineer.
- 101.2.2.1 Board Mats: The existing marsh shall be protected from damage from the dredge pipeline and equipment access using board mats as shown on the Plans. The mats shall have sufficient dimensions to allow for dredge pipeline access. Mats shall not exceed one hundred (100) feet in width perpendicular to the dredge pipeline direction. Any damage to the existing marsh shall be repaired by the Contractor at no expense to the Owner.

- 101.2.2.2 Outfalls: Each outfall location of the dredge pipeline shall be placed a sufficient distance away from all earthen containment dikes such that the integrity of the dikes is maintained during fill placement. Impacts to settlement plates and grade stakes shall also be minimized.
- 101.2.2.3 Floating or Trestle-Supported Pipelines: Dredge pipelines that are floating or supported on trestles shall display appropriate lights at night and in periods of restricted visibility in accordance with Title 33 CFR 88.15 regulations.
- 101.2.2.4 Submerged Pipelines: Submerged dredge pipelines shall be secured with anchors that are sufficient to maintain the pipeline on the water bottom at all times. These pipelines shall be marked with fluorescent orange buoys with signs stating "DANGER SUBMERGED PIPELINE" in accordance with local USCG requirements at both ends, changes in the corridor, all pipeline crossings and at one-hundred fifty (150) foot intervals along the alignment of the dredge pipeline. Signs shall also be installed anywhere the charted depth is reduced more than ten (10) percent. The depth to the top of pipe of any submerged pipeline which crosses a navigation channel shall be submitted to the USCG for Notice to Mariners as specified in SP-16.
- 101.2.2.5 Acadian Pipeline Crossing: One (1) verified Acadian Pipeline crosses Cole's Bayou in the vicinity of Marsh Creation Areas 1 and 2. The dredge pipeline shall remain floating at all times across the pipeline as shown on the Plans. The Contractor may submit any alternative option for crossing the pipeline in the Work Plan. However, the Contractor shall obtain written approval from the pipeline operator for any option that could cause impacts (weight, vibrations, etc.) to the pipeline.
- 101.2.2.6 Unknown Pipeline Crossing: One (1) verified Unknown Pipeline crosses the project area in the vicinity of Marsh Creation Area 3. The dredge pipeline shall remain floating at all times across the pipeline as shown on the Plans. The Contractor shall only utilize the pipeline crossing shown on the Plans.
- 101.2.3 Maintenance: The Contractor shall maintain a stable and non-leaking dredge pipeline at all times during dredging and placement of fill. If a leak does occur, dredging shall cease, the Engineer shall be notified, and the leak shall be repaired. If requested by the Engineer, the Contractor will transport the Engineer or Resident Project Representative to the location of the leak for a visual inspection. The Engineer may require the Contractor to survey and remove all material deposited as a result of a pipeline leak at no cost to the Owner.
- 101.2.4 Dredge Pipeline Removal: The Contractor shall re-grade those portions of the water bottom along the dredge pipeline corridor and at all crossings that have been disturbed in excess of  $\pm 1.0$  feet from original grade after removal of the dredge pipeline.

- 101.3 Ratio of Effort: Forty-five percent (45%) of the Contract cost for this bid item will be paid to the Contractor after mobilization of all dredge pipeline to the Project Site. Forty-five percent (45%) of the Contract cost for this bid item will be paid to the Contractor after installation of the dredge pipeline to Marsh Creation Area 1. The remaining ten percent (10%) of the Contract cost for this bid item will be paid to the Contractor after removal of the dredge pipeline and Acceptance of the marsh creation fill areas and As-Built Survey.
- 101.4 Justification of Costs: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit price in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Item Nos. 1 and 3 as determined by the Engineer. This determination by the Engineer is not subject to appeal.
- 101.5 Measurement and Payment: Payment shall be made at the Contract Lump Sum price for Bid Item No. 2, "Dredge Pipeline Mobilization, Installation and Demobilization (TS-101)". Payment shall constitute full compensation for furnishing the labor, equipment, materials and other incidentals related to this item of Work.

#### TS-102 GENERAL MOBILIZATION AND DEMOBILIZATION

- 102.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to mobilize and demobilize personnel, equipment, supplies, incidentals, offices, buildings and other facilities necessary for the Work at the Project Site, obtain bonds, required insurances and other pre-construction expenses necessary to perform the Work. This section shall exclude the Work and cost associated with all items specified in TS-100, TS-101, and TS-400.
- 102.2 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 expense to the Owner.
- 102.3 Equipment: All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications and shall be subject to inspection by the Engineer or Resident Project Representative at all times.
- 102.3.1 Equipment Data Sheet: The Equipment Data Sheet in Appendix L shall be submitted in the Work Plan for all heavy equipment proposed to perform the Work other than the hydraulic dredge (I.E. marsh buggies, tenders, etc.)
- 102.4 Equipment Access: All proposed routes for equipment access are provided in the Plans. Proposed alternative routes shall be provided in the Work Plan. Equipment access shall be limited to open water and the equipment access routes to the greatest extent possible. Any impacts to wetlands or water bottoms located external to the Project Site shall be repaired prior to demobilization at no direct pay. Channel excavation shall only be allowed as specified on the Plans and these Specifications. The Contractor shall not traverse across any pipeline with equipment which could damage the pipeline.

- 102.4.1 Acadian Pipeline Crossing: No equipment shall be allowed to cross the Acadian Pipeline over land. Equipment shall remain floating at all times when crossing the Acadian Pipeline over water.
- 102.4.2 Unknown Pipeline Crossing: No equipment shall be allowed to cross the Unknown Pipeline over land. Equipment shall remain floating at all times when crossing the Unknown Pipeline over water.
- 102.4.3 TransCanada Pipeline Crossing: Equipment shall remain floating at all times when crossing the TransCanada Pipeline.
- 102.4.4 Board Mats: The existing marsh near the marsh creation fill areas shall be protected from damage using board mats as shown on the Plans. The mats shall have sufficient dimensions to allow for equipment to access the marsh creation fill areas. Mat shall not exceed one hundred (100) feet in width perpendicular to the equipment access corridor. Any damage to the existing marsh shall be repaired by the Contractor at no expense to the Owner.
- 102.5 Ratio of Effort: Sixty percent (60%) of the Contract cost for this bid item will be paid to the Contractor after mobilization of all equipment and materials other than those specified in TS-100 and TS-101 to the Project Site. Forty percent (40%) of the Contract cost for this bid item will be paid to the Contractor upon final Acceptance of the marsh creation fill areas, water control structures, and earthen plugs, and after all equipment and unused materials have been removed from the Project Site.
- 102.6 Justification of Costs: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit price in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Items Nos. 1 and 2 as determined by the Engineer. This determination by the Engineer is not subject to appeal.
- 102.7 Measurement and Payment: Payment shall be made at the Contract Lump Sum price for Bid Item No. 3, "General Mobilization and Demobilization (TS-102)". Payment shall constitute full compensation for furnishing the labor, equipment, materials and other incidentals related to this item of the Work.

## TS-210 SURVEYS

- 210.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to perform the Pre-Construction, Process, and As-Built Surveys of the Work in compliance with the Plans and these Specifications. All surveys shall be performed by personnel who are approved by the Engineer and under the direct supervision of a professional engineer or surveyor licensed in the state of Louisiana. The Contractor shall provide the schedule for the surveys and deliverables in the Work Plan.

- 210.2 Notifications to the Engineer: The Contractor shall notify the Engineer a minimum of two (2) working days prior to performing the Pre-Construction, Process and As-Built Surveys. The Contractor shall also notify the Engineer immediately after field data collection for each survey is complete. The Owner may stop the respective portions of the Work if the notifications are not made. The Contractor shall not submit a Claim for this type of Work stoppage.
- 210.3 Reference and Control: Survey data shall reference the North American Datum of 1983 (NAD 83), Louisiana South Zone, U. S. Survey Feet, and the North American Vertical Datum of 1988 (NAVD 88), U. S. Survey Feet Geoid 12A-Epoch2010.00. Horizontal and vertical control shall be established by using the CPRA monument provided in Appendix H. Temporary Bench Marks (TBMs) shall be installed as deemed necessary by the Contractor to perform all surveys.
- 210.4 Method: Surveys shall utilize conventional RTK surveying methods or an appropriate GNSS or GPS Real Time Network such as Gulfnet Virtual Real-Time Network (VRS).
- 210.5 Survey Equipment: The Contractor shall utilize appropriate equipment to survey the Work as follows:
- 210.5.1 Topographic Surveys: Topographic survey equipment shall have a minimum vertical and positional accuracy of one-tenth (0.1) of a foot. A six (6) inch diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking below ground level. In vegetated areas, the survey rod shall rest among living vegetative stems and be supported by soil containing living vegetative roots. Bathymetric and topographic surveys shall overlap by 25 feet at all interfaces between land and water.
- 210.5.2 Bathymetric Surveys: Bathymetric survey equipment shall have a minimum vertical accuracy of one-tenth (0.1) of a foot  $\pm 0.1\%$  of depth. Bathymetric surveys collected on board vessels must be differentially corrected to the referenced datum for tidal fluctuations and vessel pitch, roll and heave. Bathymetric and topographic surveys shall overlap by 25 feet at all interfaces between land and water.
- 210.5.3 Magnetometer Surveys: Magnetometer survey equipment shall have a minimum accuracy of 3 gammas throughout its operational range.
- 210.5.4 Survey Stakes: Survey stakes utilized for topographic stakeout shall consist of forty-eight (48) inch long survey laths and be composed of #1 grade pine wood or approved equal. Survey stakes utilized for bathymetric stakeout shall consist of bamboo cane of sufficient length to remain a minimum of two (2) feet above mean water level. Survey stakes shall be removed after completion of the project unless otherwise directed by the Engineer.
- 210.5.5 Grade Stakes: Refer to TS-220.
- 210.6 Design Survey: The design survey report in Appendix J is for informational purposes only.

- 210.7 Modifications to Survey Layout: All approved modifications to the layout of the Work by the Engineer shall be surveyed and included in the Pre-Construction, Process and As-Built Surveys.
- 210.8 Pre-Construction Survey: The Pre-Construction Survey shall be used to verify the existing conditions at the Project Site, modify the bid items as deemed necessary by the Engineer, and lay out and stake out the Work. The Pre-Construction Survey shall show the existing bathymetry, topography, existing infrastructure and magnetic detections in plan and profile using markers, spot elevations, coordinates, contours, lines and grades. The Pre-Construction Survey shall be consistent with the Construction Survey Layout shown on the Plans and shall include the following items:
- 210.8.1 Quantities: The Pre-Construction Survey shall provide the projected quantities for each bid item. Quantities shall be presented per marsh creation fill area, water control structure, or earthen plug as applicable. The methodology or software that is proposed to be used to calculate quantities shall be provided in the Work Plan.
- 210.8.2 Temporary Bench Marks: The Contractor may install temporary bench marks at any location within the Project Site as necessary to perform the Work. All temporary bench marks shall be repaired and resurveyed if disturbed or damaged during construction.
- 210.8.3 Temporary Aids to Navigation: All temporary aids to navigation shall be surveyed after installation.
- 210.8.4 Existing Infrastructure: All infrastructure (pipelines, power lines, etc.) that is located within one-hundred-fifty (150) feet of the borrow areas, earthen containment dikes, earthen containment dike borrow areas, marsh creation fill areas, dredge pipeline corridors, equipment access corridors, hydraulic dredge access corridor and water control structures shall be surveyed and marked at a minimum of fifty (50) foot intervals along the alignment of the infrastructure. The proposed methods for marking the infrastructure shall be included in the Work Plan. Pipelines shall also be probed for depth of cover (top of pipe to existing ground) at fifty (50) foot intervals.
- 210.8.5 Significant Magnetometer Detections: For anomalies that exhibit amplitudes greater than 50 gammas, the depth and source of the anomalies shall be determined by running a 30 foot closed loop path and by probing. The Contractor shall determine if the sources of all anomalies will interfere with the performance of the Work and provide proposed corrective measures in the Progress Schedule. Failure by the Contractor to identify the source of anomalies and provide corrective measures shall not provide grounds for any Claims against the Owner.
- 210.8.6 Grade Stakes: All grade stakes shall be surveyed after installation. The identification number, existing ground elevation, coordinates and elevation of top of gauge sign shall be recorded.

- 210.8.7 Dredge Pipeline Corridor: A topographic/bathymetric and magnetometer survey shall be performed along the entire corridor of the dredge pipeline prior to installation. These surveys shall extend from the marsh creation borrow area to the marsh creation fill areas. Perpendicular transects shall be surveyed at one thousand (1,000) foot intervals along the centerline corridors as shown on the construction survey layout in the Plans. Bottom elevations and coordinates shall be recorded along the centerline of the corridor at one hundred (100) foot intervals and at all points of inflection. Bottom elevations and coordinates shall be recorded along the perpendicular transects at twenty-five (25) foot intervals and at all points of inflection. The Contractor shall establish stationing along the entire corridor of the trunk and lateral pipeline corridors. Stationing for the trunk pipeline corridor shall begin at the marsh creation borrow area. Stationing for the lateral pipeline corridor shall begin at the intersection with the trunk pipeline corridor.
- 210.8.7.1 Board Mats: At those locations along the dredge pipeline corridor where board mats are to be installed, perpendicular transects shall be surveyed at twenty-five (25) foot intervals along the centerline corridor for the entire length of the board mats. Perpendicular transects shall extend a minimum of ten (10) feet beyond the width of the board mats.
- 210.8.8 Equipment Access Corridors: A topographic/bathymetric and magnetometer survey shall be performed along the centerlines of the equipment access corridors shown on the Plans prior to mobilization of equipment. Perpendicular transects shall be surveyed at one thousand (1,000) foot intervals along the centerline corridors as shown on the construction survey layout in the Plans. Bottom elevations and coordinates shall be recorded at one hundred (100) foot intervals along the centerline and all points of inflection. Bottom elevations and coordinates shall be recorded along the perpendicular transects at twenty-five (25) foot intervals and at all points of inflection.
- 210.8.8.1 Board Mats: At those locations along the equipment access corridors where board mats are to be installed, perpendicular transects shall be surveyed at twenty-five (25) foot intervals along the centerline corridor for the entire length of the board mats. Perpendicular transects shall extend a minimum of ten (10) feet beyond the width of the board mats.
- 210.8.9 Marsh Creation Borrow Area: A bathymetric and magnetometer survey shall be performed on the marsh creation borrow area. Transects shall be consistent with the construction survey layout shown on the Plans. Ground elevations and coordinates shall be recorded at 25 foot intervals along the transects and extend one hundred fifty (150) feet beyond the boundaries of the borrow area. Transects shall extend two hundred (200) feet beyond the southern boundary to capture data along the Unknown Pipeline. The projected quantity available borrow shall be calculated based on this survey and the design dimensions shown on the Plans.
- 210.8.10 Marsh Creation Fill Areas: A topographic/bathymetric and magnetometer survey shall be performed within Marsh Creation Areas 1, 2, and 3. Transects shall be consistent with the construction survey layout shown on the Plans. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the transects and where there is a change in grade greater than  $\pm 0.5$  feet. Transects shall extend fifty (50) feet beyond the boundaries of the marsh creation fill areas.



- 210.8.11 Earthen Containment Dikes: A magnetometer survey shall be performed along the centerline alignment of the borrow areas for all earthen containment dikes. A topographic/bathymetric survey shall also be performed along the centerline alignment of the dikes and dike borrow areas. Ground elevations and coordinates shall be recorded at one-hundred (100) foot intervals along the centerline or where there is a change in grade greater than  $\pm 0.5$  feet and at all points of inflection. The projected quantities for the dikes for each marsh creation fill area shall be calculated based on this survey and the dike dimensions shown in the Plans. Stationing shall be established along the centerline alignment of each dike within each marsh creation fill area.
- 210.8.11.1 Stake Out: Survey stakes shall be placed at one-hundred (100) foot intervals and at all points of inflection along the centerline alignment of the dike, inside toe of the earthen containment dike, and outside toe of the associated borrow area.
- 210.8.11.2 Earthen Containment Dike Realignment: If a spot elevation is deeper than -3.0 ft. NAVD88 anywhere along the alignment, the Contractor shall extend a perpendicular transect from the spot elevation until reaching the -3.0 ft. NAVD88 elevation. Ground elevations and coordinates shall be recorded at ten (10) foot intervals along the transect or where there is a change in grade greater than 0.5 feet. If the Engineer realigns the earthen containment dike and associated borrow area based on this additional survey data, the Contractor shall re-survey the realigned portion of the earthen containment dike and borrow area.
- 210.8.12 Settlement Plates: All settlement plates shall be surveyed immediately after installation in the marsh creation fill areas. The identification number, existing ground elevation, coordinates and elevation of the top of pipe shall be recorded. This survey shall be repeated every thirty (30) days prior to fill placement in each marsh creation area.
- 210.8.13 Instrumented Settlement Plates: All instrumented settlement plates shall be surveyed immediately after installation in Marsh Creation Area 3. The identification number, existing ground elevation, coordinates and elevation of the top of pipe shall be recorded. This survey shall be repeated every thirty (30) days prior to fill placement into Marsh Creation Area 3.
- 210.8.14 Marsh Creation Borrow Area Access Corridor: A magnetometer survey shall be performed along the centerline alignment of the marsh creation borrow area access corridor to the marsh creation borrow area in Little Vermilion Bay. A bathymetric survey shall also be performed on the centerline of the access channel and temporary spoil placement areas. Perpendicular transects shall be surveyed at one thousand (1,000) foot intervals along the centerline alignment as shown on the construction survey layout in the Plans. Ground elevations and coordinates shall be recorded at fifty (50) foot intervals along the centerline alignments and every twenty-five (25) feet along the perpendicular transects. Transects shall extend fifty (50) feet beyond the boundaries of the temporary spoil placement areas and access channel.

- 210.8.14.1 Existing Terraces: In the vicinity of the existing terraces near Freshwater Bayou, perpendicular transects shall be taken at one hundred (100) foot intervals along the centerline alignment as shown on the construction survey layout in the Plans. Ground elevations and coordinates shall be taken at twenty-five (25) foot intervals along the perpendicular transects and shall extend fifty (50) feet beyond the boundaries of the temporary spoil placement areas and access channel.
- 210.8.15 Water Control Structures and Earthen Plugs: A topographic/bathymetric and magnetometer survey shall be performed at Water Control Structures 1 through 9 and at Earthen Plugs 3 and 6 using a ten (10) foot wide evenly spaced grid at each location. These transects shall extend a minimum of twenty-five (25) feet beyond the limits of the water control structure or earthen plug. The ground elevation and coordinates shall be recorded every ten (10) feet or where there is a change in grade greater than  $\pm 0.5$  feet along the transects. The projected quantities for corrugated metal pipe, earthen fill, non-woven geotextile, and articulated concrete block mats shall be calculated based on this survey.
- 210.8.15.1 Water Control Structure and Earthen Plug Borrow Areas: A bathymetric and magnetometer survey shall be performed at the water control structure and earthen plug borrow areas using ten (10) foot wide evenly spaced transects across the width of the borrow area. These transects shall extend twenty-five (25) feet beyond the extents of the borrow areas. The ground elevation and coordinates shall be recorded every ten (10) feet or where there is a change in grade greater than  $\pm 0.5$  feet along the transects. The projected quantities for available borrow excavation shall be calculated based on this survey.
- 210.8.15.2 Intake and Outfall Channels: A bathymetric, topographic, and magnetometer survey shall be performed along the intake and outfall channels at the water control structures using one (1) centerline profile and evenly spaced perpendicular transects every fifteen (15) feet along the channels. The centerline profile and transects shall extend ten (10) feet beyond the extents of the channel. The ground elevation and coordinates shall be recorded every twenty-five (25) feet or where there is a change in grade greater than  $\pm 0.5$  ft along the centerline or transect. The projected quantities for channel excavation shall be calculated based on this survey.
- 210.8.15.3 Stake Out: Survey stakes shall be placed along the centerline of the intake and outfall channels at ten (10) foot intervals and at all points of inflection along the centerline alignment of the channel. The centerline of each corrugated metal pipe shall be staked at the intake and outfall. The top of cut of each water control structure and earthen plug borrow area shall be staked at the corners.
- 210.9 Process Surveys: The Process Surveys shall be used to verify payment, determine Acceptance and modify the bid items as deemed necessary by the Engineer. The Process Surveys shall show the constructed bid items in plan and profile using elevations, coordinates, lines and grades consistent with the Pre-Construction Survey unless stated otherwise. The Process Surveys shall also include the following items:

- 210.9.1 Quantities: The Process Survey shall show the constructed quantities for each bid item. The calculation methodology used to determine the quantities shall be consistent with the Pre-Construction Survey.
- 210.9.2 Marsh Creation Borrow Area: The bathymetry of those portions of the marsh creation borrow area which have been dredged shall be surveyed. If the Contractor remobilizes to any portion of the borrow area which has been previously dredged, that portion of the borrow area shall be resurveyed before and after it is re-dredged. The dredge (pay) quantity shall also be calculated in total and for each marsh creation fill area.
- 210.9.3 Marsh Creation Fill Areas: The topography of each marsh creation fill area shall be surveyed 30 days after fill is placed. The in-place fill quantities for each marsh creation fill area shall also be calculated.
- 210.9.3.1 Dewatering Structures: Coordinates shall be recorded at the locations of each dewatering structure in each marsh creation fill area.
- 210.9.4 Earthen Containment Dikes: The topography of each dike and associated borrow area shall be surveyed after being fully constructed and prior to placement of the fill material into each marsh creation fill area. Ground elevations and coordinates shall be recorded for the inside and outside crests and toes of the dikes and the inside and outside troughs of the associated borrow areas. These measurements shall be repeated at one-hundred (100) foot intervals along the centerline of the dike and at all points of inflection. The total in-place fill quantity and excavated borrow quantity for the dikes around each marsh creation fill area shall also be calculated.

The dikes associated with each marsh creation fill area shall also be surveyed every two weeks beginning with placement of fill material into the marsh creation fill area, and ending with Acceptance of the marsh creation fill area. Ground elevations and coordinates shall be recorded for the inside and outside crests, inside slope at the intersection of fill material, and outside (opposite marsh creation) toe of the dikes. These measurements shall be repeated at one-hundred (100) foot intervals along the centerline of the dike and at all points of inflection.

The Contractor may submit a Process survey for each earthen containment dike within each area for Acceptance.

- 210.9.4.1 Post-Process Surveys: The Engineer may require the Contractor to re-survey the earthen containment dikes and associated borrow areas if any of the following conditions are met:
- 210.9.4.1.1. Dikes are reworked due to exceedance of the specified tolerances
  - 210.9.4.1.2. Maintenance is performed on the dikes after Acceptance
  - 210.9.4.1.3. The time between Acceptance of the dikes and beginning of fill placement into the marsh creation area is sixty (60) calendar days or longer.

The Contractor shall submit updated earthen containment dike and borrow

area quantities for all post-process surveys.

- 210.9.5 Settlement Plates: The marsh fill elevation, slurry elevation and top of pipe for all settlement plates within each marsh creation fill area shall be surveyed daily during fill placement and daily until the marsh creation fill area is accepted.
- 210.9.6 Instrumented Settlement Plates: The marsh fill elevation, slurry elevation and top of pipe for all instrumented settlement plates within Marsh Creation Area 3 shall be surveyed daily during fill placement and until Marsh Creation Area 3 is accepted.
- 210.9.7 Grade Stakes: The fill slurry elevation and top of grade stake elevation shall be observed and recorded at each grade stake on a daily basis during fill placement and until the marsh creation fill area is accepted.
- 210.9.8 Marsh Creation Borrow Area Access Corridor: The bathymetry of the marsh creation borrow area access corridor and temporary spoil placement areas shall be surveyed after the marsh creation borrow area access corridor has been excavated. Transects shall extend a minimum of twenty-five (25) feet beyond the extents of the temporary spoil placement areas.
- 210.9.9 Water Control Structures and Earthen Plugs: The water control structures and earthen plugs shall be surveyed consistent with the Pre-Construction Survey after construction.
  - 210.9.9.1 Water Control Structure and Earthen Plug Borrow Areas: The water control structure and earthen plug borrow areas shall be surveyed after construction. The excavated quantity shall also be calculated.
  - 210.9.9.2 Intake and Outfall Channels: The intake and outfall channels shall be surveyed after construction. The excavated quantities shall also be calculated.
  - 210.9.9.3 Corrugated Metal Pipes: The invert elevations of the intake and outfall for each corrugated metal pipe shall be surveyed.
  - 210.9.9.4 Earthen Berms and Plugs: The inside and outside toes and crowns of the earthen berms and plugs shall be surveyed prior to the installation of geotextile and ACB mats.
- 210.10 As-Built Survey: The As-Built Survey shall be used to verify final payment and Acceptance of all Work. Accepted Process Surveys may be included as part of the As-Built Survey. The As-Built Survey shall show the constructed bid items in plan and profile using elevations, coordinates, lines and grades consistent with the Process Surveys unless stated otherwise. The As-Built Survey shall also include the following items:
  - 210.10.1 Quantities: The As-Built Surveys shall show the constructed quantities for each constructed bid item.

- 210.10.2 Dredge Pipeline Corridor: The bathymetry of the dredge pipeline corridor shall be resurveyed consistent with the Pre-Construction Survey after the dredge pipeline has been removed. Those portions of the corridor which have been reworked due to exceedance of the specified tolerances shall be resurveyed for Acceptance.
- 210.10.2.1 Board Mats: The topography of the dredge pipeline corridor which had board mats shall be resurveyed consistent with the Pre-Construction Survey after the board mats have been removed.
- 210.10.3 Equipment Access Corridors: The topography/bathymetry of the equipment access corridors shall be resurveyed consistent with the Pre-Construction Survey after all equipment has been demobilized.
- 210.10.3.1 Board Mats: The topography of the equipment access corridor which had board mats shall be resurveyed consistent with the Pre-Construction Survey after the board mats have been removed.
- 210.10.4 Marsh Creation Fill Areas: Those portions of the marsh creation fill areas which have been reworked due to exceedance of the specified fill elevation tolerances shall be resurveyed for Acceptance.
- 210.10.5 Earthen Containment Dikes: As-Built Surveys shall be composed of the most recently Accepted Earthen Containment Dike Process Survey for the respective marsh creation fill area.
- 210.10.6 Marsh Creation Borrow Area Access Corridor: The bathymetry of the marsh creation borrow area access corridor and spoil placement areas shall be surveyed after the spoil placement areas are backfilled into the access corridor. Those portions of the marsh creation borrow area access corridor which have been reworked due to exceedance of the specified tolerances shall be resurveyed for Acceptance.
- 210.10.6.1 Existing Terraces: The existing terraces shall be resurveyed consistent with the Pre-Construction Survey after the temporary spoil has been backfilled into the access corridor.
- 210.10.7 Water Control Structures and Earthen Plugs: The water control structures and earthen plugs shall be resurveyed thirty (30) days after construction is complete for Acceptance.
- 210.10.7.1 Water Control Structure and Earthen Plug Borrow Areas: Those portions of the water control structure and earthen plug borrow areas which have been reworked due to exceedance of the specified tolerances shall be resurveyed for Acceptance.
- 210.10.7.2 Intake and Outfall Channels: Those portions of the intake and outfall channels which have been reworked due to exceedance of the specified tolerances shall be resurveyed for Acceptance.
- 210.10.7.3 Corrugated Metal Pipes: Those pipes which have been modified due to exceedance of the specified tolerances shall be resurveyed for Acceptance.

- 210.10.7.4 Earthen Berms and Plugs: The inside and outside toes and crowns of the earthen berms and plugs shall be surveyed. Those portions of the earthen berms and plugs which have been modified due to exceedance of the specified tolerances shall be resurveyed for Acceptance.
- 210.11 Deliverables: The Contractor shall submit all survey data and drawings to the Engineer for review and Acceptance by the dates specified in SP-3. The Owner may stop the respective portions of the Work if the surveys are not submitted by the specified date. The Contractor shall not submit a Claim for an adjustment to either the Contract Time or Price on any bid item for failure to submit the surveys by the specified date.
- 210.11.1 Survey Data: Survey data shall be provided in Microsoft Excel, or approved equal on digital compact disk or a web-based file transfer site. Survey data shall be presented as follows:
- 210.11.1.1 Bathymetry and topography data shall be provided in tables and include separate columns for the transect/alignment number, point number, point description, northing coordinate, easting coordinate and elevation. Bathymetric survey data shall include bar check results, survey scroll of BIN file, and corrected for tidal fluctuations and vessel pitch, roll and heave.
  - 210.11.1.2 Magnetometer detections shall be provided in tables and include the transect (track) number, shot point number, northing coordinate, easting coordinate, sensor height, signature type, amplitude and duration. Elevations and depth of cover shall be provided for all pipelines and magnetic detections higher than 50 gammas via probing. Descriptions shall also be provided for the probable causes of all magnetic detections higher than 50 gammas.
  - 210.11.1.3 The elevation data for the settlement plates shall be provided in tables and line graphs which show marsh fill, containment dike and top of riser pipe elevations versus time.
- 210.11.2 Survey Drawings: Surveys shall be provided in the latest version of AutoCAD and Adobe Acrobat, or approved equal on digital compact disk or a web-based file transfer site. Three (3) hard copies of the As-Built Surveys shall be provided to the Engineer. All survey drawings shall conform to CPRA drafting standards and be presented as follows:
- 210.11.2.1 All sheets shall include the project name, number and seal of a professional engineer or professional land surveyor licensed in the State of Louisiana
  - 210.11.2.2 The location of all secondary survey monuments and temporary benchmarks shall appear in plan view;
  - 210.11.2.3 Survey transects, spot elevations and  $\pm 1.0$  foot contours shall be shown in plan view. Transects shall also be shown in profile and include mean high and mean low water levels;

- 210.11.2.4 Magnetometer anomalies and infrastructure (pipelines, power lines, etc.) shall be shown in plan view. Infrastructure and magnetic anomalies higher than 50 gammas shall also be shown in profile;
  - 210.11.2.5 All plan views shall be overlaid onto the most recent geo-rectified Digital Orthophoto Quarter Quadrangle aerial color photographs;
  - 210.11.2.6 Revisions such as field or change orders shall be noted, shown in red and be easily distinguishable from the original design.
- 210.12 Acceptance: The Contractor shall request for Acceptance after completion of the Pre-Construction, Process and As-Built Surveys. The Engineer shall determine Acceptance of the Work based on these surveys and conformance to the Plans and Specifications. The engineer shall be afforded fourteen (14) working days from the date of receipt to review and determine Acceptance of each survey.
- 210.12.1 Pre-Construction Survey: The Contractor may mobilize equipment but shall not start construction until Acceptance of the Pre-Construction Survey. The Pre-Construction survey for the dikes must gain Acceptance prior to construction of the dikes. The Contractor may submit the dike Pre-Construction survey by marsh creation fill area for Partial Acceptance.
  - 210.12.2 Process Surveys: Payment for bid items shall not be made until Acceptance of the associated Process Surveys. Those portions of the Work which are required to be reworked, repaired or replaced due to non-compliance with the Plans and these Specifications shall be resurveyed for Acceptance.
  - 210.12.3 As-Built Survey: A draft of the As-Built Survey shall be submitted to the Engineer for review prior to the Final Inspection as per SP-3. A final version of the As-Built Survey shall be submitted to the Engineer for Acceptance after the Final Inspection as per SP-3. Final payment for this bid item will not be received until the As-Built Survey has gained Acceptance from the Engineer.
- 210.13 Ratio of Effort: Forty percent (40%) of the Contract cost for this bid item will be paid to the Contractor upon Acceptance of the Pre-Construction Survey. Forty percent (40%) will be paid to the Contractor upon Acceptance of all Process Surveys. The remaining twenty percent (20%) will be paid to the Contractor upon Acceptance of the As-Built Survey.
- 210.14 Measurement and Payment: The Contractor shall submit Applications for Payment after gaining Acceptance. Payment shall be made at the Contract Lump Sum price for Bid Item No. 4, "Surveys (TS-210)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of the Work.

## TS-220 GRADE STAKES

220.1 Scope: Grade stakes shall be installed within the marsh creation fill areas in order to measure the elevation of fill slurry during placement. The Contractor shall furnish all of the materials, labor and equipment necessary to construct, install, maintain and inspect the grade stakes in accordance with the Plans and these Specifications. Construction sequencing of this item shall be included in the Work Plan.

220.2 Materials: Each gauge sign shall be supported by one (1) 2" x 4" untreated pine lumber of sufficient length to be embedded a minimum of six (6) feet below existing grade. The top of the gauge sign shall be fastened flush with the top of the lumber using three (3) #8 galvanized or zinc-coated wood screws and washers. Holes shall be drilled through the lumber and gauge sign before the fasteners are installed.

The gauge sign shall be composed of sheeting applied to a rigid substrate of 4"x 0.120"x 36" fiberglass reinforced thermoset polyester laminate using a pressure sensitive urethane adhesive. The sheeting shall be engineer grade Avery Dennison T1500 that is white in color and reflective. The substrate shall be gray in color, dielectric, non-conductive, acrylic, UV stabilized and possess a tensile strength which exceeds 0.005" aluminum.

The tolerance range for each target fill elevation shall be represented on the gauge sign using green Avery 7TS transparent ink. The background color for the remaining portions of the gauge sign shall be red Avery 7TS transparent ink. Border lines shall be applied at each target lift and tolerance elevation using 1/8" thick Avery 7TS black ink.

220.3 Installation: Grade stakes shall be installed along the transects within the marsh creation fill areas at a maximum of one-thousand (1,000) foot intervals as shown on the Plans prior to placing fill into the marsh creation fill area. The grade stakes shall be installed vertically and embedded at least six feet below existing grade. All gauge signs within each marsh creation fill area shall be oriented in the same direction to aid observation.

220.4 Maintenance: The grade stakes shall be maintained by the Contractor until the marsh creation fill areas receive Acceptance from the Engineer. Grade stakes shall be repaired or replaced if badly damaged or their plumb angle varies by more than 15 degrees from vertical.

220.5 Inspections: An initial inspection of the grade stakes shall be performed no more than 30 days prior to placing dredge material into each marsh creation area. Inspections of the grade stakes shall also be performed daily during fill placement. These inspections shall record the top elevation, distance from the top of the stake to the existing ground (tape down distance), the stake identification number, Northing coordinate and Easting coordinate for each grade stake. A final inspection shall be performed to verify that all stakes have been properly removed. The results of all inspections shall be included in the Daily Progress Reports. The inspections may be witnessed by the Engineer or Resident Project Representative.



- 220.6 Removal: The grade stakes shall be removed prior to the marsh creation fill areas receive final Acceptance from the Engineer. The grade stakes shall either be removed in their entirety or cut off at marsh grade. Impacts to the marsh creation fill areas shall be minimized during removal of the grade stakes.
- 220.7 Ratio of Effort: Fifty percent (50%) of the Contract cost for this bid item will be paid to the Contractor after installation and initial inspection of the grade stakes. The remaining fifty percent (50%) will be paid to the Contractor upon Acceptance of the marsh creation fill areas.
- 220.8 Measurement and Payment: Payment shall be made for the Contract unit price per Each for Bid Item No. 5, "Grade Stakes (TS-220)". Payment shall constitute full compensation for furnished material, labor, equipment and other incidentals related to this item of the Work. No payment shall be made for grade stakes that are rejected or damaged due to fault or negligence by the Contractor.

#### TS-250 SETTLEMENT PLATES

- 250.1 Scope: The Contractor shall furnish all of the materials, labor and equipment necessary to construct, install, survey and maintain the settlement plates within the marsh creation fill areas and earthen containment dikes in accordance with the Plans and these Specifications. Construction sequencing of this item shall be included in the Work Plan.
- 250.2 Materials: The base plate shall be fabricated from a four (4) foot by four (4) foot by one-fourth (1/4) inch thick steel plate. A two-and-seven-eighths (2-7/8) inch diameter hole shall be drilled or cut through the center of the base plate for installation of the riser.
- The riser shall be fabricated from a two-and-one-half (2-1/2) inch nominal diameter Schedule 40 steel pipe. The riser shall be eight (8) feet long for installation in the marsh creation fill areas and nine (9) feet long for installation on the earthen containment dikes. The riser shall be inserted one (1) foot through the center of the base plate and welded using a three-sixteenths (3/16) inch continuous fillet. The top of the housing shall be fitted with a threaded or welded steel cap. Threaded caps shall each be tack-welded to the attached riser in at least two (2) locations equally spaced around the pipe perimeter.
- 250.3 Zinc Coating: A zinc coating shall be applied in a manner and thickness quality conforming to ASTM A 123. In any case where the 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 a red top coat shall be applied over the zinc coat. All painting shall conform to the latest edition of the LA DOTD Standard Specification Section 811 and 1008, or approved equivalent.
- 250.4 Installation: Settlement plates shall be installed inside the marsh creation fill areas and on the earthen containment dikes as shown on the Plans prior to placing fill into the marsh creation fill areas. Leveling of the plate bed shall be accomplished by removing the minimum amount of earth necessary to produce a level foundation. Leveling of the plate bed by the addition of any material will not be permitted.

- 250.5 Maintenance: The Contractor shall maintain all settlement plates until the marsh creation fill areas gain Acceptance. Damaged settlement plates shall be immediately repaired or replaced and resurveyed by the Contractor at no expense to the Owner.
- 250.6 Ratio of Effort: Fifty percent (50%) of the Contract cost for this bid item will be paid to the Contractor after installation of the settlement plates. The remaining fifty percent (50%) will be paid to the Contractor upon Acceptance of the marsh creation fill areas.
- 250.7 Measurement and Payment: Payment shall be made for the Contract unit price per Each for Bid Item No. 6, "Settlement Plates (TS-250)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of the Work. No payment shall be made for settlement plates that are rejected or damaged due to fault or negligence by the Contractor.

#### TS-251 INSTRUMENTED SETTLEMENT PLATES

- 251.1 Scope: The Contractor shall furnish all of the materials, labor and equipment necessary to construct, install, survey and maintain four (4) instrumented settlement plates in accordance with the Plans and these Specifications.
- 251.2 Materials: The base plate for each settlement plate shall be fabricated with a six (6) foot by six (6) foot by one-fourth (1/4) inch thick steel plate. A two and seven-eighths (2-7/8) inch diameter hole shall be drilled or cut through the center of the base plate for installation of the rise pipe and stand pipe.

The riser pipe for each settlement plate shall be two and one-half (2-1/2) inch nominal diameter Schedule 40 steel pipe that is ten (10) feet long. The riser shall be inserted two (2) feet through the hole in the center of the base plate and welded on both sides of the plate using a 3/16" continuous fillet. The stand pipe shall be one and one-half (1-1/2) inch nominal diameter Schedule 40 steel pipe that is twelve (12) feet long.

The housing for the multiplex/node on each settlement plate shall be fabricated from a twelve (12) inch long section of twelve (12) inch diameter Schedule 40 steel pipe with threads on top. The top of the housing shall be fitted with a threaded PVC cap. The bottom of the housing shall be fabricated from twelve (12) inch diameter by three-sixteenths (3/16) inch thick steel plate. A one and one-half (1-1/2) inch diameter hole shall be drilled three (3) inches from the center of the housing plate for installation of the instrumentation cables. The bottom of the housing plate shall be welded to the top of the riser pipe using a three-sixteenths (3/16) inch continuous fillet. Four (4) pad eyes fabricated from three-sixteenths (3/16) inch thick steel plate shall be welded onto the housing as shown on the Plans.

Three (3) three (3) inch diameter perforated PVC Schedule 40 pipe that are eight (8) feet long shall be provided to the Engineer. Perforations shall consist of one-half (1/2) inch holes that are spaced one-hundred-eighty (180) degrees apart on one-half (1/2) foot increments along the axis. Six (6) PVC non-threaded caps and fittings shall be provided to the Engineer. Twenty (20) Mesh T-304 sixteen-thousandths (0.016) inch stainless steel wire cloth shall be wrapped around the outside of the pipe and fastened with plastic wire straps. Sand shall be provided to the Engineer having a gradation equal to 100% retained by the No. 18 sieve (1 mm).

Four (4) two (2) inch diameter PVC pipe that are ten (10) feet long shall be cut into five (5) foot sections and installed over the drive point rods. PVC non-threaded caps and fitting shall be attached to the top of the pipe.

The Engineer shall be allowed to inspect the instrumented settlement plates and verify that the instrumentation can be properly installed a minimum of one (1) month prior to installation.

251.3 Zinc Coating: A zinc coating shall be applied in a manner and thickness quality conforming to ASTM A 123. In any case where the 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 vinyl wash primer followed by a red top coat shall be applied over the zinc coat. All painting shall conform to the latest edition of the LA DOTD Standard Specification Section 811 and 1008, or approved equivalent.

251.4 Instrumentation: The instrumentation shall be delivered to the Engineer a minimum of one (1) month prior to installation of the instrumented settlement plates and shall become the property of the Owner upon delivery. The Engineer shall install the instrumentation concurrent with the installation of the settlement plates in the field by the Contractor. The instrumentation shall include the following:

251.4.1 Three (3) vibrating wire piezometers with eleven (11) foot cables (Geokon Model 4500AL-70KPA), or approved equal);

251.4.2 Four (4) vibrating wire drive point piezometers with twenty-seven (27) foot long cables (Geokon Model 4200DP-1-170KPA, or approved equal);

251.4.3 Four (4) vibrating wire drive point piezometers with forty-two (42) foot cables (Geokon Model 4500DP-1-170KPA, or approved equal);

251.4.4 Thirty-eight (38), five (5) foot long drive point rods with thirty-one (31) male-to-male connectors (Geokon Model 4500Dp-2, or approved equal);

251.4.5 One (1) wireless data acquisition network supervisor with antenna extender (Geokon Model 8800-2-2A, or approved equal);

251.4.6 Four (4) wireless data acquisition sensor nodes with antenna extenders (Geokon Model 8800-1-2A, or approved equal);

251.4.7 Four (4) eight (8) channel multiplexers (Geokon Model 8800-8-1, or approved equal);

251.4.8 Four (4) two (2) foot multiplexer cables (Geokon Model 8032-5v & 05-37512-E, or approved equal).

- 251.5 Installation: The instrumented settlement plates shall be installed at locations approved by the Engineer a minimum of two (2) weeks prior to fill placement in order for the Engineer to install the instrumentation. The stand pipe shall be driven to a depth determined by the Engineer in the field. Leveling of the base plate shall be accomplished by removing the minimum amount of earth necessary to produce a level foundation. Leveling of the base plate by the addition of any material will not be permitted.
- 251.6 Monitoring: The Engineer shall be responsible for programming the data logger to obtain measurements throughout placement of fill until one (1) month after fill placement is complete. The Contractor shall provide boat transportation to the Engineer in order to access the data logger at any time during this monitoring period.
- 251.7 Maintenance: The Contractor shall maintain all settlement plates until Acceptance of the marsh creation fill areas. Damages to settlements plates and associated instrumentation shall be immediately repaired or replaced and resurveyed by the Contractor at no expense to the Owner.
- 251.8 Ratio of Effort: Fifty percent (50%) of the Contract cost for this bid item will be paid to the Contractor after installation of the instrumented settlement plates. The remaining fifty percent (50%) will be paid to the Contractor upon Acceptance of the marsh creation fill areas.
- 251.9 Measurement and Payment: Payment shall be made for the Contract Lump Sum price for Bid Item No. 7, "Instrumented Settlement Plates (TS-251)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of Work. No payment shall be made for instrumented settlement plates that are rejected or damaged due to fault or negligence by the Contractor.

#### TS-300 EARTHEN CONTAINMENT DIKES

- 300.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to construct, and maintain the earthen containment dikes (dikes) in accordance with these Specifications and in conformity to the lines, grades, elevations and tolerances shown on the Plans, or otherwise modified by the Pre-Construction Survey. Construction sequencing of this item shall be included in the Work Plan.
- 300.2 Equipment: All dikes shall be constructed and maintained using mechanical excavation equipment. The Equipment Data Sheet in Appendix L shall be included in the Work Plan for all mechanical excavation equipment proposed to perform the Work. The mechanical dredge equipment shall be in satisfactory operating condition, capable of efficiently performing the Work, and shall be subject to inspection by the Owner or Engineer throughout the performance of the Work.
- 300.3 Construction: The dikes shall be constructed around the full perimeter of Marsh Creation Areas 1, 2, and 3 using in-situ borrow material that is excavated adjacent to the dikes. The borrow material shall be excavated from within the fill area of Marsh Creation Areas 1 and 2 and along the western extent of Marsh Creation Area 3 as shown on the Plans. The eastern portion of the dike along Marsh Creation Area 3 shall be excavated from the outside of the fill area as shown on the Plans. The borrow material shall not be excavated within the minimum offset distance from the toe of the dikes nor below the maximum depth shown on the Plans.

- 300.3.1 Construction Tolerance: The vertical elevation tolerance for the crest height of the dikes shall be plus one foot (+1.0 ft).
- 300.4 Borrow Material: The soil properties of the borrow material may vary across the Project Site. The geotechnical investigation is provided in Appendix I. All unsuitable organic debris (logs, stumps, snags, etc.) greater than two (2) inches in diameter or two (2) feet in length that is encountered in the dike borrow area shall remain and not be utilized to construct the dikes. All unsuitable inorganic debris (tires, scrap, etc.) greater than five (5) pounds that is encountered in the dike borrow shall be disposed off-site in an approved waste disposal facility.
- 300.5 Internal Training Dikes: The Contractor has the discretion to construct internal training dikes as necessary to aid in containment of dredged material within the marsh creation fill areas. The dimensions of the internal training dikes may vary, however, the crown height shall not exceed the containment dikes of the respective marsh creation fill area. There will be no additional payment for costs associated with constructing and maintaining the internal training dikes.
- 300.6 Maintenance: All dikes shall be maintained to the design dimensions by the Contractor until the respective Marsh Creation Area has gained Acceptance. Should a breach or failure of any of the dikes occur before a marsh creation fill area gains Acceptance, the Contractor shall immediately notify the Engineer, cease fill placement into the marsh creation fill area and initiate repairs to the containment dike. All external spills of fill or dike material from the marsh creation fill area shall be immediately returned to the marsh creation fill area by the Contractor at no pay. The Contractor shall include a detailed procedure and communication protocol for the monitoring, repair and reporting of dike breaches in the Work Plan.
- 300.7 Acceptance: The Contractor shall request for Acceptance after construction and Process surveys of the dikes and prior to placement of fill material into the associated marsh creation fill area. Acceptance shall be determined from the Process surveys and compliance with the lines, grades, elevations, and tolerances shown on the Plans. The Engineer may require the addition or removal of material that is excavated or placed beyond the specified tolerances at no direct pay.
- 300.8 Ratio of Effort: Ninety percent (90%) of the Contract cost for this bid item will be paid to the Contractor after construction of the dikes. The remaining ten percent (10%) will be paid to the Contractor after Acceptance of the associated marsh creation fill area and the As-Built Survey of the dikes.
- 300.9 Measurement and Payment: Payment will be made at the Contract unit price per Linear Foot for Bid Item No. 8, "Earthen Containment Dikes (TS-300)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of the Work. The Contractor may request partial payment on a monthly basis based on the linear feet of dike constructed.

## TS-310 EARTHWORK

- 310.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to perform earthwork at each of the water control structures and earthen plugs in accordance with these Specifications and in conformity to the lines, grades, elevations and tolerances shown on the Plans. Construction sequencing of this item in reference to each water control structure and earthen plug shall be provided in the Work Plan.
- 310.2 Equipment: Earthwork shall be performed using mechanical excavation equipment. The Equipment Data Sheet in Appendix L shall be included in the Work Plan for all mechanical excavation equipment proposed to perform the Work. The mechanical dredge equipment shall be in satisfactory operating condition, capable of efficiently performing the Work, and shall be subject to inspection by the Owner or Engineer throughout the performance of the Work.
- 310.3 Clearing and Grubbing: Organic and inorganic debris that exists within the extents of the water control structures and earthen plugs shall be cleared, grubbed and disposed off-site in an approved waste disposal facility. Burning of debris is prohibited.
- 310.3.1 Debris: All deleterious inorganic debris greater than five (5) pounds that is encountered during excavation shall be disposed off-site in an approved waste disposal facility. All deleterious organic debris greater than two (2) inches in diameter or two (2) feet in length that is encountered during excavation shall also be disposed off-site in an approved waste disposal facility.
- 310.4 Temporary Dewatering Structures: The Contractor has the option to construct temporary dewatering structures to assist in performing the earthwork in the dry at the water control structures and earthen plugs. The Contractor shall submit shop drawings in the Work Plan for approval by the Engineer.
- 310.5 Water Control Structures: Earthen berms shall be constructed at the locations of the water control structures as shown on the Plans.
- 310.5.1 Borrow: For water control structures 4, 5, and 7, in-situ material excavated from the water control structure borrow areas shown on the Plans shall be used to construct the earthen berm. The borrow areas shall be excavated of sufficient depth to obtain material that is granular with low organic content. The excavated material may be temporarily stockpiled in the re-handling areas shown on the Plans or on either of the existing breach for drying and reuse. Borrow material for water control structures 1-3, 6, and 8-9 shall be excavated from the culvert trenches and intake and outfall channels.
- 310.5.1.1 Excavation Limits: Excavation shall occur within the limits of the borrow areas and trenches as shown on the Plans.
- 310.5.2 Intake and Outfall Channels: Intake and outfall channels at the water control structures shall be excavated to the dimensions shown on the Plans. The excavated material may be temporarily stockpiled on either side of the culvert trench for reuse.

- 310.5.3 Culvert Trench: For water control structures 1, 2, 3, 6, 8, and 9, the Contractor shall excavate trenches along the alignments of the culverts to the dimensions shown on the Plans. The excavated material may be temporarily stockpiled on either side of the trench for reuse.
- 310.5.4 Installation of the Culverts and Valves: Culverts and Valves shall be consecutively installed during the earthwork within the culvert trench as per TS-510.7 and TS-520.3, respectively.
- 310.5.5 Placement and Shaping: After installation of the culverts and valves the Contractor shall refurbish and shape the earthen berms to the lines, grades, and elevations shown in the Plans. The berm material shall be placed evenly within the existing trench and around the sides and haunches of the corrugated metal pipe in one (1) foot lifts and thoroughly compacted with mechanical or vibratory compaction equipment. Culverts shall have a minimum of one (1) foot of earthen cover at the crest of the earthen berm. The geometry of the refurbished portion of the earthen berm shall taper to the existing adjacent earthen berm within a maximum distance of ten (10) feet. All unused material shall be spread along the marsh side of the earthen berm on either side of the culvert(s) not to exceed one (1) foot in thickness. The earthen berms shall be reshaped if the Process surveys determine non-compliance with the construction tolerance.
- 310.5.5.1 Construction Tolerance: The vertical elevation tolerance for the crest of the earthen berm shall be plus one-half foot (+0.5 ft).
- 310.5.6 Installation of Articulated Concrete Block Mats: Articulated Concrete Block Mats shall be installed over the constructed berms as per TS-750.3.
- 310.6 Earthen Plugs: Earthen plugs shall be constructed in the breaches of the existing earthen berm at the plug locations 3 and 6 as shown on the Plans.
- 310.6.1 Borrow: The Contractor shall excavate in-situ borrow material from the earthen plug borrow areas shown on the Plans. The borrow areas shall be excavated of sufficient depth to obtain material that is granular with low organic content. The excavated material may be temporarily stockpiled on either side of the existing breach for drying and reuse.
- 310.6.1.1 Excavation Limits: Excavation shall occur within the limits of the borrow area as shown on the Plans.
- 310.6.2 Placement and Shaping: The earthen plugs material shall be placed evenly within the existing breaches in one (1) foot lifts and thoroughly compacted with mechanical or vibratory compaction equipment. Material shall be placed to the grades, lines and elevations shown on the Plans. The geometry of the earthen plug shall taper to the existing adjacent earthen berm within a maximum distance of ten (10) feet. All unused material shall be spread along the marsh side of the earthen berm on either side of the earthen plug not to exceed one (1) foot in thickness. The earthen plugs shall be reshaped if the Process surveys determine non-compliance with the construction tolerance.

- 310.6.2.1 Construction Tolerance: The vertical elevation tolerance for the crest of the earthen plug shall be plus one-half foot (+0.5 ft).
- 310.6.3 Seeding and Watering: The extents of the earthwork at the earthen plugs shall be seeded after construction of the earthen plugs is complete. A minimum of 50 lbs/acre common Bermuda grass shall be applied in a hulled condition between March and September, or un-hulled between October to February. The seeds shall be sowed by broadcast spreaders or mechanical hand seeders. The seeds shall be watered weekly using a potable water source for a minimum of four (4) weeks.
- 310.7 Acceptance: The Contractor shall request for Acceptance after the earthwork at all water control structures and earthen plugs has been completed. The earthwork shall gain Acceptance if the Process surveys show compliance with the lines, grades, elevations, and tolerances shown on the Plans. The Engineer may require the addition or removal of material excavated or backfilled beyond the specified tolerances.
- 310.8 Measurement and Payment: Payment will be made at the Contract Lump Sum price for Bid Item No. 9, "Earthwork (TS-310)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of the Work. No separate payment shall be made for construction of temporary dewatering structures.

#### TS-330 MARSH CREATION BORROW AREA ACCESS CORRIDOR

- 330.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to excavate, maintain and backfill material from the marsh creation borrow area access corridor to marsh creation borrow area in Little Vermilion Bay in accordance with these Specifications and in conformity too the lines, grades, elevations and tolerances shown on the Plans. Construction sequencing of this item shall be included in the Work Plan.
- 330.2 Equipment: The marsh creation borrow area access corridor shall be excavated using mechanical (bucket) excavation equipment. The Equipment Data Sheet in Appendix L shall be included in the Work Plan for all mechanical excavation equipment proposed to perform the Work. The mechanical excavation equipment shall be in satisfactory operating condition, capable of efficiently performing the Work, and shall be subject to inspection by the Owner or Engineer throughout the performance of the Work.
- 330.3 Channel Excavation: Channel excavation shall occur within the limits shown on the Plans. The Contractor is not required to fully excavate to the limits. The Contractor shall pay for all damages and repairs associated with excavation beyond those limits. All deleterious organic or inorganic debris greater than five (5) pounds that is encountered during excavation shall be disposed off-site in an approved waste disposal facility.
- 330.4 Material Placement: Material excavated from the marsh creation borrow area access corridor shall be temporarily deposited in the stockpile areas shown on the Plans. Temporary aids to navigation may be required per USCG requirements.



- 330.5 Maintenance: The marsh creation borrow area access corridor shall be maintained as needed in order to transport the hydraulic dredge to and from the marsh creation borrow area. Maintenance dredging shall be performed at no cost to the Owner.
- 330.6 Backfilling: The temporary stockpile areas shall be backfilled into the access corridor to original grade after demobilization of the hydraulic dredge and all the marsh creation fill areas have gained Acceptance. All misplaced material shall be immediately returned to the designated areas at no pay.
- 330.6.1 Construction Tolerance: After being backfilled, the vertical elevation tolerance for the finished grade of the marsh creation borrow area access corridor and disposal areas shall be plus or minus one-half foot ( $\pm 0.5$  ft) from Pre-Construction grade.
- 330.7 Acceptance: The Contractor shall request for final Acceptance after the marsh creation borrow area access corridor has been backfilled. The corridor shall gain Acceptance if the Process surveys show compliance with the lines, grades, elevations, and tolerances shown on the Plans. The Engineer may require the addition or removal of material dredged or placed beyond the specified tolerances.
- 330.8 Ratio of Effort: Fifty percent (50%) of the Contract cost for this bid item will be paid to the Contractor after excavation of the marsh creation borrow area access corridor. The remaining fifty percent (50%) will be paid to the Contractor after backfilling and the As-Built Survey of the marsh creation borrow area access corridor.
- 330.9 Measurement and Payment: Payment shall be made at the Contract Lump Sum price for Bid Item No. 10, "Marsh Creation Borrow Area Access Corridor (TS-330)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of the Work.

#### TS-400 HYDRAULIC DREDGING AND MARSH FILL

- 400.1 Scope: The Contractor shall furnish all of the materials, labor and equipment necessary to hydraulically dredge the marsh creation borrow area and place the material into the marsh creation fill areas in accordance with these Specifications and in conformity to the lines, grades, elevations and tolerances shown on the Plans. The borrow material must be dredged, conveyed, and placed in such a manner to ensure that negative impacts caused by the project are minimized. This section shall include the operation and maintenance of the hydraulic dredge and any booster pump(s). Construction sequencing of this item shall be included in the Work Plan.
- 400.2 Hydraulic Dredging: The Contractor shall dredge the Marsh Creation Borrow Area using the hydraulic dredge as specified in TS-100 and transfer the dredged material to the marsh creation fill areas using the dredge pipe as specified in TS-101.
- 400.2.1 Borrow Material: The material to be dredged from the borrow area may consist of gravel, sand, silt, clay, muck or shell. Soil boring logs for the marsh creation borrow area are provided in Appendix I. Additional materials such as logs, stumps, snags, tires, scrap and other debris which are encountered shall be removed and properly disposed of by the Contractor.

- 400.2.2 Dredging Limits: Dredging shall occur within the limits of the marsh creation borrow area as shown on the Plans. The Contractor's dredge anchors shall remain within the dredge anchor limits shown on the Plans. The Contractor shall immediately notify the Engineer if an infraction of borrow area limits does occur. The Contractor shall also pay all permit fines and other expenses related to dredging beyond the limits of the marsh creation borrow area.
- 400.2.3 Dredge Location Control: The Contractor is required to utilize a differential global positioning system (DGPS) to accurately and continuously track and record the position and depth of the dredge and cutter head while dredging the marsh creation borrow area. The position of the dredge and cutter head shall be recorded in Louisiana South State Plane Coordinate System, NAD 1983 with an accuracy of fifteen (15) feet. The Engineer or Project Representative shall be allowed to board the dredge and observe dredging operations from the bridge. The Contractor is required to calibrate the DGPS equipment per manufacturer's specifications. The position data and calibration records shall be included in the Daily Progress Reports. The proposed type of positioning equipment shall be included in the Work Plan.
- 400.3 Marsh Creation: The Contractor shall place the material dredged from the marsh creation borrow area into Marsh Creation Areas 1, 2, and 3.
- 400.3.1 Placement of Dredged Material: Dredged material shall be placed into the marsh creation fill areas after construction and Acceptance of the earthen containment dikes. Construction marsh fill elevations and vertical tolerances are as follows:

Marsh Creation Fill Areas	Construction Marsh Fill Elevation (Ft. NAVD88)	Vertical Tolerance (Feet)
1	+2.0 Maximum	-0.5 from Maximum
2	+2.0 Maximum	-0.5 from Maximum
3	+2.5 Maximum	-0.5 from Maximum

The dredge flow rate and slurry density shall be regulated to ensure that the construction marsh fill elevations comply with the specified tolerances, the integrity of the earthen containment dikes is maintained, and that no slurry material is discharged from the marsh creation fill areas. The Contractor shall be responsible for the restoration of any damages to adjacent wetlands or water bodies.

- 400.3.2 Dewatering: The Contractor shall dewater the marsh creation fill areas to the marsh nourishment areas shown on the Plans in order to achieve the construction marsh fill elevations within the specified tolerances. Dewatering structures such as weirs or spill boxes shall be utilized to discharge the decanted water into the nourishment areas shown on the Plans. Decanted water shall not be discharged directly into adjacent water bodies (Little Vermilion Bay, Freshwater Bayou, Cole's Bayou, McIlhenny Canal, etc.). The hydraulic grade and loss of fine dredged material may be further reduced using materials such as internal training dikes, weirs, hay bales or silt fences. The proposed locations and shop drawings of the dewatering structures shall be provided in the Work Plan.

- 400.3.3 Sequence: Dredge material shall be placed in the marsh creation fill areas at any sequence. However, the Contractor shall produce a process survey of those areas of the marsh creation borrow area that have been dredged before placement into different marsh creation fill areas.
- 400.4 Acceptance: The Contractor shall request for Acceptance from the Engineer after construction and Process surveys for the marsh creation fill areas. Acceptance shall be determined from the Process surveys and compliance with the lines, grades, elevations, and tolerances shown on the Plans. The Engineer may require the addition or removal of material dredged or placed beyond the specified tolerances.
- 400.5 Ratio of Effort: Eighty percent (80%) of the Contract cost for this bid item will be paid to the Contractor after Acceptance of the marsh creation fill areas. The remaining twenty percent (20%) will be paid to the Contractor after Acceptance of the As-Built Survey of the marsh creation fill areas.
- 400.6 Measurement and Payment: Payment shall be made at the Contract unit price per Cubic Yard (Dredged from the marsh creation borrow area / Payment on the Cut) for Bid Item No. 11, "Hydraulic Dredging and Marsh Fill (TS-400)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of the Work. The Contractor may request partial payment on a monthly basis based on the cubic yards dredged from the marsh creation borrow area.

#### TS-510 CORRUGATED METAL PIPE

- 510.1 Scope: The Contractor shall furnish all of the materials, labor and equipment necessary to install the corrugated metal pipe (CMP) on all of the water control structures as shown in the Plans. Shop drawings and construction sequencing of this item in reference to the water control structure shall be provided in the Work Plan.
- 510.2 Materials: The CMP shall conform to Section 1007.01 of the Louisiana Standard Specifications for Roads and Bridges, latest edition. The CMP shall be Type 1 (Full circular cross section) with a nominal inside diameter of forty-two (42) inches. The pipe shall be fabricated from 12 gauge (0.1084 in) steel. The profile of the corrugations shall be sized at two and two-thirds (2-2/3) inches in length and one-half (0.5) inch in depth.
- 510.3 Galvanization: The CMP shall be protected with a zinc coating (Galvanized) as specified by Section 1007.01 of the Louisiana Standard Specifications for Roads and Bridges, latest edition.
- 510.4 Coupling Bands: Coupling bands may be installed as necessary to achieve the length of CMP shown on the Plans. Coupling bands shall conform to Section 1007.09 of the Louisiana Standard Specifications for Roads and Bridges, latest edition. Coupling bands shall be used at all joints in the CMP. The material of the coupling bands shall meet or exceed the specification for the CMP.
- 510.4.1 Elbows: All elbows shall match the dimensions shown on the Plans. The material of the elbows shall meet or exceed the specifications for the CMP.

- 510.5 Shipment and Storage: The CMP shall be adequately protected from damage during shipment and storage. Each CMP shall be labeled or tagged with the manufacturer's name, product identification, shipping lot, dimensions, weight, and date of manufacture.
- 510.6 Rejection: The Owner reserves the right to reject any CMP that does not comply with this specification or shows poor workmanship.
- 510.7 Installation: The CMP shall be installed at the locations and invert elevations shown on the Plans. Temporary struts shall be installed as necessary to prevent deflection of the CMP during soil backfill and compaction.
- 510.8 End Treatment: The intake and outfall for all water control structures shall have a plain end on the CMP.
- 510.9 Measurement and Payment: Payment shall be made at the contract unit price per Linear Foot for Bid Item No. 12, "Corrugated Metal Pipe (TS-510)" installed. No payment shall be made for CMP that is rejected or damaged due to fault or negligence by the Contractor.

#### TS-520 INLINE CHECK VALVE

- 520.1 Scope: The Contractor shall furnish all of the materials, labor and equipment necessary to install an inline check valve on each water control structure as shown in the Plans. Manufacturer's Specifications and construction sequencing of this item in reference to each water control structure shall be provided in the Work Plan.
- 520.2 Materials: The inline check valve shall be capable of being entirely recessed inside of the corrugated metal pipe. The entire valve shall be of unibody construction and fabricated from neoprene elastomer with wire or ply reinforcement. The external diameter shall be forty-two (42) inches and the maximum length shall be eighty (80) inches. The minimum head necessary to open or close the valve shall be one (1) inch.
- 520.3 Installation: The inline check valve shall be installed inside the corrugated metal pipe at the locations shown on the Plans and as per the Manufacturer's recommendations. The valve shall be fastened inside of the pipe using a minimum of two (2) 304 stainless steel expansion clamps. The turnbuckles on the expansion clamps shall be oriented forty-five (45) degrees from top center. Corrugations in the CMP around the inline check valve shall be filled with hydraulic cement or approved equal and create a seal between the valve and the CMP as specified by the manufacturer.
- 520.4 Measurement and Payment: Payment shall be made at the contract unit price per Each for Bid Item No. 13, "Inline Check Valve (TS-520)" installed. Payment shall constitute full compensation for furnishing the labor, equipment, and other incidentals related to this item of Work. No payment shall be made for inline check valves that are rejected or damaged due to fault or negligence by the Contractor.

## TS-640 NON-WOVEN GEOTEXTILE

- 640.1 Scope: The Contractor shall furnish all of the materials, labor, and equipment necessary to obtain and install the non-woven geotextile along centerline coordinates 10-11 of the earthen containment dike at Marsh Creation Area 1 and over the earthen berms at the water control structure locations in accordance with the Plans and these Specifications. Manufacturer's specifications and construction sequencing of this item shall be submitted in the Work Plan.
- 640.2 Materials: The non-woven geotextile shall meet or exceed the geotextile physical property requirements specified in the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition, Section 1019.01, Table 1019-1 for Class D geotextile. The material shall be a non-woven geotextile consisting only of long chain polymeric filaments or yarns formed into a stable network such that the filaments or yarns retain their position relative to each other during handling, placement, and throughout the design service life. At least eighty-five percent (85%), by weight of the material shall be polypropylenes, polyesters, polyamides, polyethylene, or polyolefins. The geotextile shall be free of any treatment or coating which might adversely alter the geotextile's hydraulic or physical properties after installation. When required, the geotextile shall contain stabilizers and/or inhibitors added to the base material to make filaments resistant to deterioration due to ultraviolet light and/or heat exposure. The edges of the geotextile shall be selvage. The geotextile shall be free from defects or tears. Thread used for factory or field sewing shall be of contrasting color to the geotextile and made of high strength polypropylene, polyester, or polyamide thread.
- 640.3 Installation: The non-woven geotextile shall be installed over the earthen containment dike at Freshwater Bayou in Marsh Creation Area 1 and over the earthen berms at the water control structures to the lines and grades shown on the Plans. All geotextile shall be installed under the articulated concrete block mats as shown on the Plans. The geotextile shall be field cut to fit the skewed entrance and exit diameters of each of the pipes at each water control structure location. The Contractor shall prepare the surface to receive the non-woven geotextile such that it is relatively smooth and free of obstructions, depressions, debris, and soft or low density pockets of material which could cause damage to the geotextile. Prior to installation, any geotextile with defects, rips, holes, flaws, deterioration or damage shall be rejected. The geotextile shall be protected at all times to assure the original chemical and physical properties remain unchanged. Installation of the geotextile shall be consecutive with placement of the articulated concrete mats. All wrinkles and sags shall be stretched out immediately before the articulated concrete mats are placed on the geotextile. Any geotextile rejected or damaged shall be replaced by the Contractor at no additional cost to the Owner.
- 640.3.1 Seams and End Laps: Each non-woven geotextile panel shall consist of multiple geotextile strips factory sewn for as large a panel area as manageable. The panels must cover the width of the earthen berms and containment dike shown on the Plans. Adjacent panels shall be overlapped a minimum of five (5) feet.
- 640.4 Shipment and Storage: Rolls of non-woven geotextile shall be shipped, transported and maintained in a protective cover prior to placement. Each roll shall be labeled or tagged with the manufacturer's name, date of manufacture, batch number, and name of product.

- 640.5 Acceptance: The Contractor shall furnish a signed mill certificate or affidavit to the Engineer at least thirty (30) days prior to installation. The mill certificate or affidavit shall attest the geotextile and seams complies with the requirement of these specifications. The Contractor shall also provide a three (3) foot by three (3) foot sample of the non-woven geotextile to the Engineer.
- 640.6 Ratio of Effort: Forty-five percent (45%) of the Contract cost for this bid item will be paid to the Contractor after installation of the non-woven geotextile on the containment dike at Marsh Creation Area 1. Forty-five percent (45%) of the Contract cost for this bid item will be paid to the Contractor after installation of the non-woven geotextile at all earthen berms. The remaining ten percent (10%) will be paid to the Contractor after Acceptance of Marsh Creation Area 1 and all earthen berms.
- 640.7 Measurement and Payment: Payment shall be made at the Contract Unit Price per Square Yard for Bid Item No. 14, "Non-Woven Geotextile (TS-640)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of Work.

#### TS-750 ARTICULATED CONCRETE MATS

- 750.1 Scope: The Contractor shall furnish all of the materials, labor and equipment necessary to install articulated concrete block (ACB) mats at all of the water control structures and along centerline coordinates 10-11 of the earthen containment dike on Marsh Creation Area 1 in accordance with the Plans and these Specifications. Manufacturer's specifications and construction sequencing of this item in reference to the water control structure shall be provided in the Work Plan.
- 750.2 Materials: Each ACB mat shall consist of individual concrete elements that are interlinked to form overall dimensions of eight (8) feet in width, twenty (20) feet in length, and a minimum of four (4) inches in nominal thickness. The open area of the entire articulated concrete mat shall not exceed twenty percent (20%).
- 750.2.1 Concrete Elements: Each ACB concrete element shall be cast as an open cell and have minimum dimensions of twelve (12) inches in width, twelve (12) inches in length, and a minimum of four (4) inches in nominal thickness. The dimensional tolerance of each concrete element shall be  $\pm$  one-quarter (1/4) of an inch. The concrete shall have a minimum compressive strength of 4,000 psi and minimum density of 125 pounds per cubic foot. The edges of the concrete elements shall be tapered enough to allow for a minimum articulation angle of forty-five (45) degrees in all directions.
- 750.2.2 Interlinks: The interlinks shall be embedded during the casting of the concrete elements and effectively bind all adjacent elements. The interlinks shall be composed of either polyester cable, copolymer rope, or steel cable. The interlinks shall have good resistance to chemicals, ultra-violet light, high salinity, rot and corrosion. The minimum tensile strength of each interlink shall be a minimum of 150% of the weight.

- 750.3 Installation: The ACBs shall be installed over the non-woven geotextile at the earthen containment dike and earthen berms as shown on the Plans, or as directed by the Engineer. The ACBs shall be connected or fastened together using cable clamps, or approved equal. The interlinks or connections of the ACBs shall be field cut to fit the diameter of each culvert at each water control structure location ensuring complete coverage under the pipe ends at the inlets and outlets as field conditions allow. The non-woven geotextile shall be protected from damage during placement of the articulated concrete mats. The ACBs shall be placed on top of the non-woven geotextile on the earthen containment dike and water control structures.
- 750.4 Maintenance: The Contractor shall maintain the ACBs in good condition until Acceptance of the Work. The Contractor shall repair or replace any ACBs at no pay if they become damaged or moved from their original location.
- 750.4.1 Rejection: The Owner reserves the right to reject any ACB mat that does not comply with these Specifications. All ACB mats shall be free of defects that would interfere with the proper placing of the unit. Surface cracks incidental to the usual methods of manufacture, or surface chipping resulting from customary methods of handling in shipment and delivery, shall not be deemed grounds for rejection. An ACB mat shall be rejected if any of the interlinks between the concrete elements have been severed or more than ten (10) percent of any element is not intact.
- 750.5 Acceptance: The Contractor shall submit a request for Acceptance after construction and Process surveys of Marsh Creation Area 1 and all water control structures. Acceptance shall be determined from the process surveys and compliance with the lines, grades, elevations, and tolerances shown on the Plans. The Engineer may require the addition or removal of ACBs that are not properly installed.
- 750.6 Ratio of Effort: Forty-five percent (45%) of the Contract cost for this bid item will be paid to the Contractor after installation of the ACBs on the containment dike at Marsh Creation Area 1. Forty-five percent (45%) of the Contract cost for this bid item will be paid to the Contractor after installation of the ACBs at all earthen berms. The remaining ten percent (10%) will be paid to the Contractor after Acceptance of Marsh Creation Area 1 and all earthen berms.
- 750.7 Measurement and Payment: Payment shall be made at the Contract Unit Price per Square Yard for Bid Item No. 15, "Articulated Concrete Mats (TS-750)". Payment shall constitute full compensation for furnishing the labor, equipment, and other incidentals related to this item of Work.

#### TS-950 TREATED TIMBER PILES

- 950.1 Scope: The work consists of furnishing and driving all new treated timber piles to the lines and depths as shown on the drawings.
- 950.2 Material: The piles shall be round Southern Yellow Pine or Douglas Fir. The tips shall have a minimum 25 inch circumference and 8 inch diameter.

All piles shall be pressure treated to a minimum of 20 pounds per cubic foot net retention with a creosote-coal tar solution conforming AWWA P2. Wood treatment and quality assurance shall comply with Section 1014 of the Louisiana Standard Specifications for Roads and Bridges, as published by the Louisiana Department of Transportation and Development (2006 Edition), or approved equivalent.

- 950.3 Pile Lengths: Piles shall be driven to the specified lengths shown on the Plans.
- 950.4 Site Preparation: All excavation in the area shall be completed before the piles are driven.
- 950.5 Protection of Pile Heads: The heads of all piles shall be protected during driving by suitable caps, rings, heads, blocks, mandrels, and other devices which shall be provided by the Contractor as needed for the type of pile and shall conform to the recommendations of the pile manufacturer. Collars, bands, or other approved devices to protect timber piles against splitting or brooming shall be provided when necessary, or as required by the Engineer.
- 950.6 Installation: A description of the proposed pile driving system, which includes the pile driving equipment and method of installation, shall be submitted as part of the Work Plan for approval by the Engineer. The Contractor shall notify the Engineer before pile driving operation commences. Such notice shall be far enough in advance, a minimum of 24 hours, to provide the Engineer adequate time to be present for the driving operations. Piles shall be driven only in the presence of the Engineer or resident project representative. Piles shall be furnished and driven to the depths shown on the Plans.
- 950.7 Equipment:
- 950.7.1 Piles shall be driven with mechanical equipment such as excavators or approved equal.
- 950.7.2 The use of steam, air, diesel power, or vibratory hammers shall not be allowed.
- 950.7.3 The piles shall be driven in a manner not to exceed the maximum allowable pile compressive driving stress of 3,600 psi.
- 950.7.4 Piles shall be driven to the position and line specified on the Plans. Each pile shall be driven continuously and without interruption to the specified depth.
- 950.8 Driving Tolerance: Piles shall be driven at locations shown on the Plans or as directed in writing. The final pile head at cut-off elevation shall be plus 1 inch of the final grade shown in the Plans.
- 950.9 Cutting off Piles: Piles shall be driven and the damaged end cut off to the lines and grade as shown on the Plans. Cut-off ends shall be disposed of offsite.
- 950.10 Defective Piles: Any piles damaged in driving, driven out of proper location, driven less than the minimum specified depth, or inaccurately cut off shall be corrected by the following method, as approved by the Engineer:
- 950.10.1 The defective pile shall be pulled and replaced.



- 950.11 Measurement and Payment: Payment shall be made at the Contract unit price per Each Pile for Bid Item No. 16, "Treated Timber Piles (TS-950)". Quantity shall be measured per pile driven. Payment shall constitute full compensation for furnishing the labor, equipment, and other incidentals related to this item of Work. No payment is made for furnishing or driving piles to replace piles lost or damaged before the completion of the Contract while in stockpile or during handling and driving.

#### TS-955 TREATED TIMBER

- 955.1 Scope: This work consists of furnishing lumber of the sizes and grade specified and of furnishing timber of the stress-grade, sizes and dimensions for the different uses specified, treated, and of preparing, framing, assembling and erecting the same, including painting where specified, and all hardware. Unless otherwise specified, all timber shall be treated.

- 955.2 Materials: Species and grade of structural timber and lumber shall comply with AASHTO M 168 and the following requirements.

Timber shall be Southern Yellow Pine of Grade No. 1 Dense SR Timbers referring to the latest Standard Grading Rules for Southern Pine Lumber, as published by the Southern Pine Inspection Bureau (SPIB) or Douglas Fir of the equivalent grade, provided the same species is used throughout each structure.

All timber shall be of the dimensions shown on the Plans and shall be pressure treated to a minimum of 20 pounds per cubic foot net retention with a creosote-coal tar solution conforming AWWA P2. Wood treatment and quality assurance shall comply with Section 1014 of the Louisiana Standard Specifications for Roads and Bridges, as published by the Louisiana Department of Transportation and Development (2006 Edition).

- 955.3 Storage of Materials: Lumber and timber stored on the site shall be kept in orderly stacks. Material shall be open stacked on supports above ground, and shall be so stacked and stripped as to permit free circulation of air between tiers and courses. When directed, protection from weather by suitable covering will be required.

- 955.4 Timber:

- 955.4.1 Workmanship: Nails and spikes shall be driven with just sufficient force to set the heads flush with the surface of the wood. Deeper hammer marks in wood surfaces shall be considered evidence of poor workmanship and sufficient cause for removal of the workman causing them.

- 955.4.2 Surfacing: Lumber and timber shall be S4S.

- 955.4.3 Handling: Treated timber shall be handled with rope slings, without dropping or breaking of outer fibers, bruising, or penetrating the surface with tools.

- 955.4.4 Framing and Boring: Cutting, framing and boring of treated timber shall be done before treatment insofar as practical. When treated timber is to be placed in water infested by marine borers, untreated cuts, borings or other joint framings below high-water elevation shall be avoided.

- 955.4.5 Cuts and Abrasions: Cuts and abrasions in creosoted timbers, after having been carefully trimmed, shall be covered with two applications of creosote complying with AWPA M4 and covered with hot roofing pitch. Roofing pitch shall comply with ASTM D4586.
- 955.4.6 Bolt Holes: Holes bored in pressure-treated material shall be filled with preservative. Unused bore holes and spike holes shall be poured full of preservatives and plugged with tight-fitting treated plugs.
- 955.4.7 Temporary Attachment: When, with the approval of the Engineer, forms or temporary braces are attached to treated timber with nails or spikes, holes shall be filled by driving galvanized nails or spikes flush with the surface or plugged as required for bolt holes.
- 955.5 Holes for Bolts: Holes for bolts shall be bored perpendicular to the face of the timber and shall be 1/16 inch less in diameter than bolt.
- 955.6 Bolts and Washers: A washer of the size and type specified shall be used under bolt heads and nuts which would otherwise come in contact with wood. Stacked washers will not be permitted. Bolts shall not project more than 1 inch beyond the nut on work securely tightened. Nuts of bolts shall be locked after they have been tightened.
- 955.7 Framing: Lumber and timber shall be accurately cut and framed to a close fit in such manner that joints will have even bearing over the contact surfaces. No shimming will be permitted in making joints nor will open joints be accepted. Mating pieces shall be tightly bound or clamped in position prior to drilling bolt holes.
- 955.8 Brackets: The middle timber joist under the inline check valve shall be braced with a minimum of two (2) galvanized double-shear joist hangers with screws per connection.
- 955.9 Measurement and Payment: Payment shall be made at the Contract unit price per thousand board-feet (MFBM) of timber shown on the Plans for Bid Item No. 17, "Treated Timber (TS-955)". Quantities for timber payment shall be the design quantities and adjustments thereto. The design quantities are based on the number of MFBM of timber in the completed work. Design quantities shall be adjusted if the Engineer makes changes to adjust to field conditions, if plan errors are proven, or if design changes are necessary. Payment shall constitute full compensation for furnishing the labor, equipment, and other incidentals related to this item of Work.

### **END OF PART III – TECHNICAL SPECIFICATIONS**

## **APPENDIX A: SUBCONTRACTOR REPORT**

**CURRENT INVOICE NO.** \_\_\_\_\_  
**PURCHASE ORDER NO.** \_\_\_\_\_

**APPENDIX A, ATTACHMENT A1**

## COASTAL CONSTRUCTION AND VEGETATIVE PROJECTS

## SUBCONTRACTOR REPORT

PRIME CONTRACTOR \_\_\_\_\_

[illegible]

**APPENDIX B: REQUEST FOR INFORMATION FORM**

Cole's Bayou Marsh Restoration Project (TV-63)  
Request for Information (RFI)

DATE:

RFI Number:

Summary of RFI by Contractor
Signature:

Response to RFI by Engineer
Signature:

**APPENDIX C: CHANGE ORDER FORM**

## CHANGE ORDER NO. \_\_

**OWNER:** State of Louisiana, Coastal Protection & Restoration Authority  
**CONTRACTOR** \_\_\_\_\_  
**PROJECT:** Cole's Bayou Marsh Restoration Project (TV-63)  
**FILE NO:** \_\_\_\_\_  
**SOLICITATION NO:** \_\_\_\_\_  
**ENGINEER:** Melvin Guidry

---

The following changes are hereby proposed to be made to the Contract Documents:

•

**Description:** See attached summary.

**Attachments (list documents supporting change):**

•

Change in Contract Price		Change in Contract Time	
Original Contract Price		Original Contract Time (calendar days)	
Net Increase /(Decrease) from previous Change Orders		Net Increase /Decrease from previous Change Orders (days)	
Contract Price prior to this Change Order		Contract Time prior to this Change Order (calendar days)	
Net Increase/(Decrease) of this Change Order		Net Increase (Decrease) of this Change Order (days)	
Contract Price with this Change Order		Contract Time with this Change Order (calendar days)	

**RECOMMENDED:**

By: \_\_\_\_\_  
Engineer  
Date: \_\_\_\_\_

**RECOMMENDED:**

By: \_\_\_\_\_  
CPRA Construction Manager  
Date: \_\_\_\_\_

**ACCEPTED:**

By: \_\_\_\_\_  
Contractor  
Date: \_\_\_\_\_



**COLE'S BAYOU MARSH RESTORATION PROJECT (TV-63)**

**SUMMARY OF CHANGE ORDER NO:\_\_\_\_\_**

ITEM NO.	DESCRIPTION	UNIT	ORIGINAL QUANTITY	ADJUSTED QUANTITY	UNIT PRICE	AMOUNT OVERRUN	AMOUNT UNDERRUN
Net Increase of this Change Order							

**Justification:**

- 

No additional contract time is requested to accomplish the work for the change order.

**APPENDIX D: RECOMMENDATION OF ACCEPTANCE FORM**

ATTACHMENT A4

❖ NOT FOR RECORDATION PURPOSES ❖

## RECOMMENDATION OF ACCEPTANCE

TO: Coastal Protection and Restoration Authority  
150 Terrace Avenue, Suite 100  
Baton Rouge, LA 70802

FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*Design Firm Name and Address*

DATE: \_\_\_\_\_

PROJECT NAME & NUMBER: \_\_\_\_\_

SITE CODE: \_\_\_\_\_ STATE ID: \_\_\_\_\_ CFMS: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_  
\_\_\_\_\_

ORIGINAL CONTRACT AMOUNT: \$ \_\_\_\_\_

FINAL CONTRACT AMOUNT: \$ \_\_\_\_\_

DATE OF ACCEPTANCE: \_\_\_\_\_

CONTRACT DATE OF COMPLETION: \_\_\_\_\_

NUMBER OF DAYS (OVERRUN) (UNDERRUN) (As of Acceptance Date) \_\_\_\_\_

LIQUIDATED DAMAGES PER DAY STIPULATED IN CONTRACT \$ \_\_\_\_\_

VALUE OF PUNCH LIST \$ \_\_\_\_\_ (*Attach  
punch list*)

Signed: \_\_\_\_\_  
DESIGNER

**FOR USE OF PROJECT MANAGER:**

Signed: \_\_\_\_\_  
PROJECT MANAGER

❖ NOT FOR RECORDATION PURPOSES ❖

**APPENDIX E: LANDRIGHTS MEMORANDUM**



# State of Louisiana

JOHN BEL EDWARDS  
GOVERNOR

January 22, 2018

## Memorandum

To: Brad Miller, CPRA Project Manager

From: Ben Barnes, CPRA Land Section

RE: Landrights Completion Memo  
Coles Bayou Marsh Creation and Hydrologic Restoration Project TV-63

The CPRA Land Division has completed landrights necessary to proceed to construction contracting on the above referenced project. The following agreements and information is being provided to you.

<input checked="" type="checkbox"/> <i>Servitude Agreement(s)</i>	<input type="checkbox"/> <i>Mineral Operations Agreement(s)</i>
<input type="checkbox"/> <i>Servitude Amendment (Integrated Coastal Protection)</i>	<input type="checkbox"/> <i>Grant of Particular Use</i>
<input type="checkbox"/> <i>Pipeline Notices of Construction</i>	<input type="checkbox"/> <i>State Land Office Letter of No Objection</i>
<input type="checkbox"/> <i>Oil/Gas Operator Agreement(s)</i>	<input type="checkbox"/> <i>Assignment of Rights to Federal Sponsor</i>
<input type="checkbox"/> <i>Memorandum(s) of Agreement</i>	<input type="checkbox"/> <i>Landrights Certification Letter</i>
<input type="checkbox"/> <i>CWPPRA Section 303(e) approval</i>	<input type="checkbox"/> <i>Other: Corp of Engineers Consent</i>
<input type="checkbox"/> <i>Right(s) of Entry for Construction</i>	<input type="checkbox"/> <i>Other:</i>

Please note the following information that will need to be included in the contract specifications and/or for future monitoring, operations and maintenance site visits:

### I. Landowner Notification Requirements

Contractor agrees to give reasonable notice to all land owner(s) and pipeline owner(s) prior to initiation of access to the Project for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.

### II. General Provisions

The Contractor shall add all landowner(s) as additional insureds on any policies carried by the contractor, including completed operations coverage. 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.

### **III. Additional Provisions**

In addition to obligations of Contractor set forth in the contract documents: Contractor shall provide to the CPRA TV-63 Land Rights Manager listed below within thirty (30) calendar days after the bid contract's notice to proceed is issued: certificate of insurance listing all landowners provided above as additional insured; and proof of delivery of project construction notification letters sent to all landowner(s) and pipeline owner(s)/operator(s). Contractor shall adhere to all applicable provisions, terms and conditions, restrictions, and the like in Easements, Servitudes and Right-of-Way Agreements between CPRA and the below-listed landowners within Appendix C of the contract documents.

Ben Barnes  
CPRA TV-63 Land Rights Manager  
[Benjamin.Barnes@la.gov](mailto:Benjamin.Barnes@la.gov)

### **V. Pipeline Provisions**

- A. The Contractor shall notify pipeline companies at least seventy-two (72) hours in advance of any construction Work. All pipelines located within 150 feet of the dike alignments, marsh fill areas, borrow area, excavation area, and sediment pipeline corridor shall be probed and their locations marked, prior to excavation and/or installation of the sediment pipeline, for the duration of construction activities. No excavation shall be permitted within 50 feet of any pipeline. It is the Contractor's responsibility to locate all pipelines for purposes of determining areas where excavation is not permitted.
- C. 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 areas to ensure that any lines in the area are identified and will not be impacted.

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

**Landowner:**

E. A. McIlhenny Enterprises, Inc.  
Highway 329, Avery Island  
Louisiana 70513-0125

**Contact:** Randy Moertle and Associates, Inc.  
1008 Mar Dr.  
Lockport, LA 70374  
Mobile: (985) 856-3630  
Email: rmoertle@bellsouth.net

**Pipeline Owner:**

Acadian Gas Pipeline  
Attn: Leonard Thurmond  
Encroachment Analyst  
9420 West Sam Houston Parkway North  
Houston, Texas 77064  
(281) 887-3322  
Email: lthurmond@eprod.com



---

Ben Barnes, PMP  
CPRA Land Section



Diane Meaux Broussard  
Clerk of Court  
100 N. State Street  
ABBEVILLE LA 70510  
PHONE: (337) 898-1992 FAX: (337) 898-9803

**First VENDOR**

E A MCILHENNY ENTERPRISES INC

**First VENDEE**

LOUISIANA STATE OF COASTAL PROT & RES AUTHORITY

Book: CO

Instrument Number: 2017007938

Instrument Type: R/W

Recording Pages: 8

**Recorded Information**

I hereby certify that the attached document was filed for registry and recorded in the Clerk of Court's office for Vermilion Parish, LA

  
Clerk of Court

On (Recorded Date): 09/05/2017

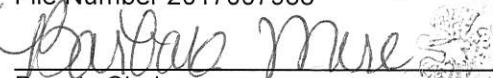
At (Recorded Time): 8:46AM

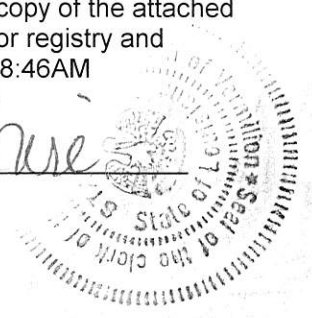
Doc ID: 1010301



CLERK OF COURT  
DIANE MEAUX BROUSSARD  
VERMILION PARISH, LA

I certify that this is a true copy of the attached document that was filed for registry and Recorded 09/05/2017 at 8:46AM  
File Number 2017007938

  
Deputy Clerk





**TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT**

**COLE'S BAYOU MARSH CREATION & HYDROLOGIC RESTORATION  
PROJECT TV-63**

**VERMILION PARISH, LOUISIANA**

**STATE OF LOUISIANA**

**PARISH OF VERMILION**

THIS AGREEMENT, made and entered into this 3rd day of February, 20 17, by and between: **E. A. MCILHENNY ENTERPRISES, INCORPORATED**, a Louisiana corporation, with the business address of Highway 329, Avery Island, Louisiana 70513-0125, herein represented by Tony Simmons, its President, hereinafter called the "GRANTOR", as owner of the below described property; and

The STATE OF LOUISIANA herein represented by and appearing as follows through:

The **COASTAL PROTECTION AND RESTORATION AUTHORITY** ("CPRA"), as authorized and directed by the policy of the Coastal Protection and Restoration Authority Board, herein represented by and appearing through the Executive Director of CPRA, Michael Ellis, domiciled in East Baton Rouge Parish, Louisiana, with offices located at 150 Terrace Avenue, Baton Rouge, Louisiana, 70802, and whose mailing address is P.O. Box 44027, Baton Rouge, Louisiana, 70804-4027, appearing pursuant to the provisions of La. R.S. 49:214.1, *et seq.*, as amended by Act 523 of the 2009 Regular Session and as amended by Act 604 of the 2012 Regular Session of the Louisiana Legislature;

The above mentioned hereinafter collectively referred to as "STATE".

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR'S property interests resulting from the hereinafter described project, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called "the Agreement"), together with the right to enter in, on, and over, GRANTOR'S property interests, for integrated coastal protection purposes as defined in La. R.S. 49.214.2(11) as part of the Cole's Bayou Marsh Creation & Hydrologic Restoration Project TV-63 (hereinafter called the "Project") located in, on, or over GRANTOR'S property interests. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called "said Lands"), to-wit:

Sections 13 & 14 East of Freshwater Bayou Canal, and Sections 23, 24, 25, and 26, T15S-R2E; and Projected Section 18A, and Projected Sections 19A & 30A West of Belle Isle Canal and Deep Water Bayou, T15S-R3E; Vermilion Parish, Louisiana, and further described and shown as Subject Lands on Exhibit A, attached hereto and made a part hereof.

GRANTOR hereby warrants that GRANTOR understands the Project and accepts any and all impacts to said Lands resulting from construction and implementation of the Project.

I. This Agreement grants the rights to enter said Lands, (further identified on Exhibits A and B, attached hereto), to perform construction, operation, modification, monitoring, and maintenance and such other activities described on Exhibit C, (attached hereto), necessary to complete the Project.

II. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.

III. To the extent permitted by Louisiana law, STATE shall, indemnify, and hold GRANTOR harmless against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys' fees. However, nothing herein shall be construed as indemnifying or holding GRANTOR or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR as additional insured on any policies carried by the contractor, including completed operations coverage. The STATE acknowledges, declares and stipulates that GRANTOR has provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10 C, as amended by Act No. 734 of the 2010 Regular Session of the Louisiana Legislature. This clause shall survive the term of this agreement.

IV. STATE shall be responsible for repair in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, but such repair shall be to that condition which existed immediately prior to STATE's activities. STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.

V. STATE acknowledges that La. R.S. 49:214.5.5 provides that no rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures through the Coastal Protection and Restoration Fund or other sources of funding in accordance with the provision of La. R.S. 49:214.6.2. The STATE further agrees that in the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in or over private property solely on the basis of the expenditure of funds through the Coastal Protection and Restoration Fund or other sources of funding in accordance with the provision of La. R.S. 49:214.6.2, that the State shall indemnify and hold harmless the owner of such property for any costs, expense, or loss related to such proceeding, including court costs and attorney fees. To the extent permitted by La. R.S. 49:214.5.5, the servitude and right-of-way rights granted herein shall be considered real rights and covenants running with the land.

VI. It is understood GRANTOR shall retain the limits of its title and all property rights (subject to the rights of STATE herein) in and to said Lands, and all minerals in, on and under said Lands are not affected in any way hereby. However, no structures and/or appurtenances constructed hereunder pursuant to the Project on said Lands shall be adjusted, removed and/or interfered with by GRANTOR, or anyone holding rights by, through or under GRANTOR.

VII. Subject to the above, in its exercise of the rights herein granted, STATE agrees not to unreasonably interfere with (a) oil and gas operations, (b) agricultural operations, and (c) hunting, trapping and alligator egg operations, (d) fishing, crabbing, or shrimping, now occurring, or authorized to occur, on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said Lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of conducting oil, gas or other mineral operations on any of said Lands, for the exploration, discovery, production, storage, transportation and disposition of oil, gas, sulphur or other minerals, under oil, gas and mineral leases or otherwise, and for the purpose of farming, grazing, hunting and trapping fur-bearing animals, alligator egg operations, fishing, crabbing, or shrimping thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the lawful activities of STATE pursuant to this Agreement.

VIII. GRANTOR does not warrant title. GRANTOR specifically does not warrant or represent the correctness of any survey, or any of the plats attached hereto which purport to show the location of said Lands. If at any time any questions or litigation should arise as to the ownership of any part of the property covered hereby, or as to any boundary or limit of any part of the separate and various Lands covered by this Agreement, this Agreement shall not be construed to be, or permitted to serve as, evidence or as a basis of waiver of any legal rights against any party hereto, or prevent any party hereto from establishing its ownership, or having the boundaries or limits of its property determined, in any lawful manner, anything herein contained to the contrary notwithstanding.

IX. STATE may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands.

X. This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of twenty (20) years unless sooner released by STATE.

XI. This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors in interest, transferees and assigns.

XII. This Agreement may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same. To facilitate recordation of this agreement, the parties hereto agree that individual signature and acknowledgment pages from the various counterparts may be merged and combined with signature and acknowledgment pages from other counterparts.

XIII. This Agreement does not confer or waive any rights except as provided herein.

(Remainder of page intentionally left blank)

IN WITNESS WHEREOF, GRANTOR has executed this Agreement in the presence of the undersigned witnesses on the date below:

**WITNESSES:**

Patricia Adams  
Print: Patricia Adams  
Nanette Darkz  
Print: Nanette Darkz

**GRANTOR: E. A. MCILHENNY  
ENTERPRISES, INCORPORATED**

By: [Signature]  
Print: Tony Simmons  
Title: President  
Date: December 15, 2016

**CORPORATE ACKNOWLEDGMENT**

**STATE OF LOUISIANA**

**PARISH OF** Iberia

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish/County and State aforesaid, on this 15th day of December, 2016, personally came and appeared Tony Simmons, to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he/she is President, of E. A. McIlhenny Enterprises, Inc., that as such duly authorized officer, by and with authority of the Board of Directors of said corporation, he/she signed, and executed the foregoing instrument, as the free and voluntary act and deed of said corporation, for and on behalf of said corporation, and for the object and purposes therein set forth.

[Signature]  
Print: Cheryl D. Inzerella  
**NOTARY PUBLIC**

Notary or Bar # 56452  
My commission expires: @ death  
(SEAL)



IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

**WITNESSES:**

**COASTAL PROTECTION AND  
RESTORATION AUTHORITY**

Joann D. Hicks

Print: Joann D. Hicks

Shirley T. Long

Print: Shirley T. Long

By: Michael Ellis  
**MICHAEL ELLIS**

Title: Executive Director

Date: 2/3/17

**ACKNOWLEDGMENT**

**STATE OF LOUISIANA**

**PARISH OF EAST BATON ROUGE**

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 3rd day of February, 20 17, personally came and appeared Michael Ellis, me known, who declared that he is the Executive Director, of the Coastal Protection and Restoration Authority, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.

David A. Peterson

Print Name: David A. Peterson  
NOTARY PUBLIC

Notary or Bar # 22541  
My commission expires: with life  
(SEAL)



**OFFICIAL SEAL**  
David A. Peterson  
BAR ROLL #22591  
STATE OF LOUISIANA  
My Commission is for Life

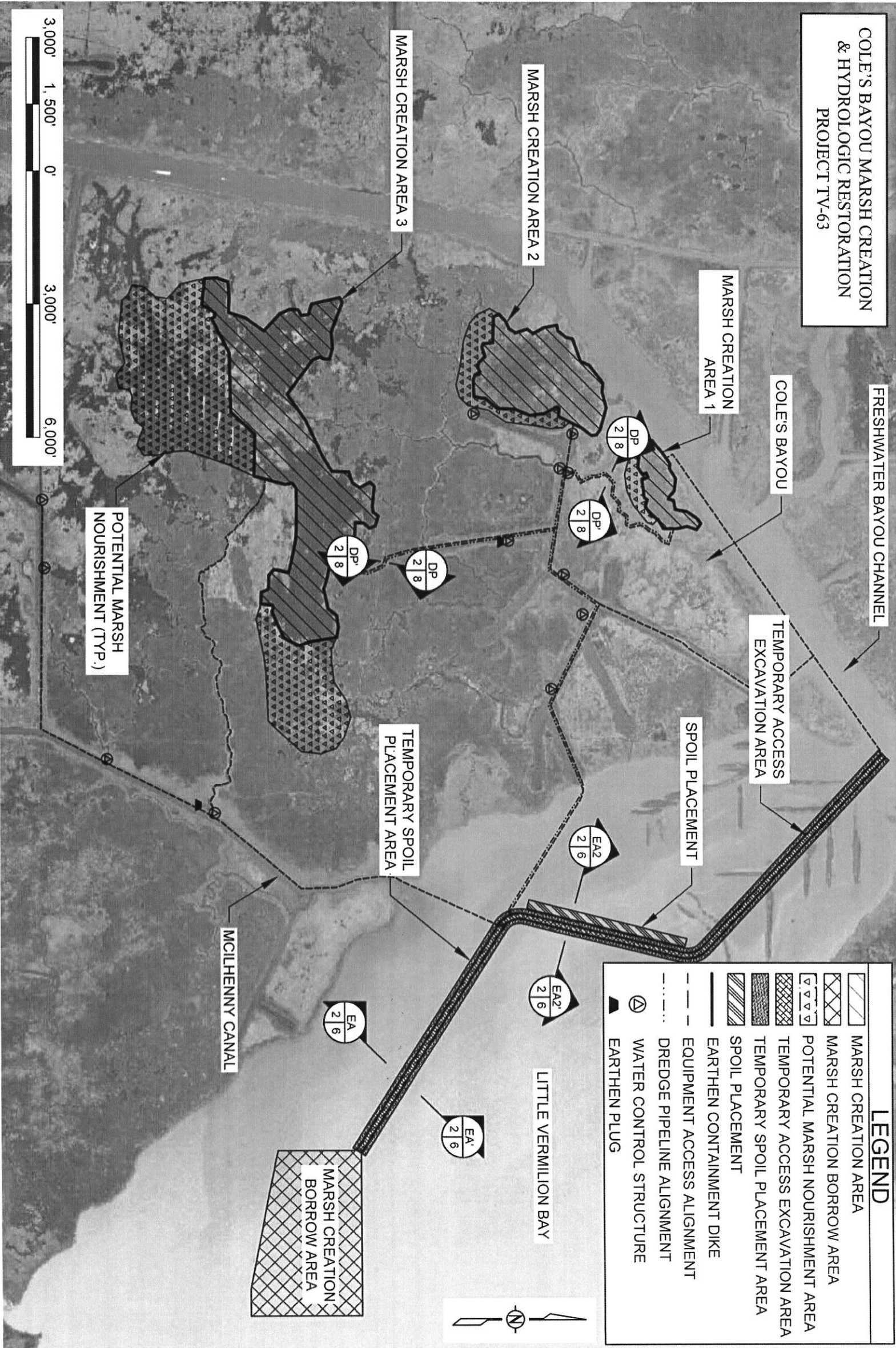


EXHIBIT A





EXHIBIT B



## Exhibit C

Attached to and made a part of the certain Temporary Easement, servitude and Right-of-Way Agreement by and between E. A. McIlhenny Enterprises, Incorporated and the Coastal Protection and Restoration Authority, dated the 3rd day of February, 2017.

### Project Activities and Features

- a. The right to construct (including the necessary excavation and/or filling), operate, maintain and monitor water control structures including all appurtenances thereto, in, over and across the said Lands as shown on Exhibit B;
- b. The right to plug, close or fill selected channels, canals, ditches, streams or waterbodies located on said Lands as shown on Exhibit B;
- c. The right to deposit dredged sediment and/or fill material on, over and across said Lands by either natural or mechanical means, including the right to alter land and/or water contours and undertake management practices to enhance or extend the beneficial use of dredged or sediment deposition for wetland creation, restoration and enhancement;
- d. The right to borrow, excavate, grade, and remove soil, vegetation and associated materials from the said Lands as shown;
- e. The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;
- f. The right to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;
- g. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;
- h. The right to enter and traverse said Lands to access Project features located on adjacent Lands;
- i. The right, to permanently overflow, flood and submerge the said Lands, *including the right to deposit dredged or sediment material on, over and across said Lands* in connection with the operation and maintenance of the Project, and the continuing right to clear and remove any brush, debris and natural obstructions on said Lands which may be detrimental to the Project as determined by OCPR, its successors and assigns, provided that no excavation shall be conducted and no landfill placed on said Lands without *GRANTOR'S* approval as to the said location and method of excavation and/or placement of landfill; and
- j. The right to make modifications to the above, but only insofar as changes pertain to materials for Project features and minor changes to project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project.



**APPENDIX F: PERMITS OBTAINED BY OWNER**



**State of Louisiana**  
**DEPARTMENT OF NATURAL RESOURCES**  
**OFFICE OF COASTAL MANAGEMENT**

April 12, 2016

Sydney Dobson, Agent  
Coastal Protection and Restoration Authority  
450 Laurel Street  
Baton Rouge, LA 70801

RE: **C20160024**, Coastal Zone Consistency  
**National Marine Fisheries Service**  
Direct Federal Action  
Cole's Bayou Marsh Restoration (TV-63)  
**Vermilion Parish, Louisiana**

Dear Mr. Dobson:

The above referenced project has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the application, is consistent with the LCRP. If you have any questions concerning this determination, please contact Carol Crapanzano of the Consistency Section at (225) 342-9425 or 1-800-267-4019.

Sincerely yours,

**/S/ Don Haydel**

Acting Administrator  
Interagency Affairs/Field Services Division

DH/SK

cc: John Foret, NMFS  
Sara Fortuna, COE  
Dave Butler, LDWF  
Darin Thomassee, OCM



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT  
P.O. BOX 60267  
NEW ORLEANS, LOUISIANA 70160-0267

Operations Division  
Western Evaluation Section

APR 22 2016

RECEIVED

2016 APR 29 P 3:30

CPRA

SUBJECT: MVN-2016-00292 WKK

Louisiana Coastal Protection and Restoration Authority  
ATTN: Mr. Andrew Beall  
450 Laurel Street  
Baton Rouge, Louisiana 70801

Dear Mr. Beall:

The proposed work, to conduct dredging operations within a 193-acre borrow area, construct an approximate 16,803-foot long equipment access channel from Little Vermillion Bay to Freshwater Bayou Channel, install 12 water control structures with 1-3 42-inch diameter corrugated metal pipes, six 48-inch diameter culverts with sluice and flap gates, two 48-inch diameter culverts with flap gates, and construct two earthen plugs at the existing breaches, all to create 418 acres of brackish marsh, nourish 344 acres of existing brackish marsh, and increase freshwater and sediment flow into interior wetlands to improve hydrology (Cole's Bayou Marsh Restoration-TV-63), located east of Freshwater Bayou Canal, approximately 17.0 miles south of Abbeville, Vermillion Parish, Louisiana, as shown on the enclosed drawings, is authorized under **Category II** of the **Programmatic General Permit** provided that all conditions of the permit are met.

Prior to commencing work on your project, you must obtain approvals from state and local agencies as required by law and by terms of this permit. These approvals include, but are not limited to, a permit, consistency determination, or determination of "no direct or significant impact (NDSI) on coastal waters" from the Louisiana Department of Natural Resources, Office of Coastal Management and a water quality certification from the Louisiana Department of Environmental Quality, Water Quality Certifications Section.

The following special conditions are made part of this authorization:

a. Our Real Estate Office has indicated that your project is located in an area over which the federal government holds real estate interests. No work may be performed under this permit until a real estate instrument is issued by our Real Estate Office. If you require further information regarding real estate matters, call (504) 862-1605. The real estate instrument will be initiated by our Real Estate Office without further action required on your part.

b. The permittee shall adhere to the attached special conditions for the West Indian Manatee.

c. In accordance with the (Cole's Bayou Marsh Restoration Project TV-63), excavated borrow materials shall be deposited at elevations conducive to the reestablishment and nourishment of marsh habitat. Unless otherwise authorized herein, the permittee will restore any wetland areas inadvertently impacted during construction and access, immediately following project completion. Remediation actions may include but are not limited to re-contouring ruts and ground disturbance, the removal of surplus fills, construction materials, and debris, and/or re-planting of native vegetation, if natural habitat regeneration is not expected to occur.

This approval to perform work is valid for 5 years from the date of this letter.

Permittee is aware that this office may reevaluate its decision on this permit at any time the circumstances warrant.

Should you have any further questions concerning this matter, please contact Sara Fortuna of this office at (504) 862-2284.

Sincerely,






*Donnell S. Baulais*

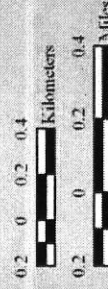
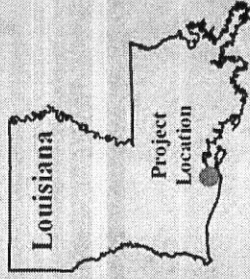
*for:* Martin S. Mayer  
Chief, Regulatory Branch

Enclosure



# Cole's Bayou Restoration (TV-063)

-  1, 48" culvert with sluice and flap gates \*
-  2, 48" culverts with flap gates \*
-  Channel Improvements \*
-  Marsh Creation \*
-  Project Boundary
- \*denotes proposed features



Map Produced by:  
U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Assessment Branch  
Baton Rouge, La.

Background Imagery:  
2010 NAIP Photography

Map Date: January 31, 2012  
Map ID: USGS-NWRC 2012-11-0010  
Data accurate as of: August 17, 2011



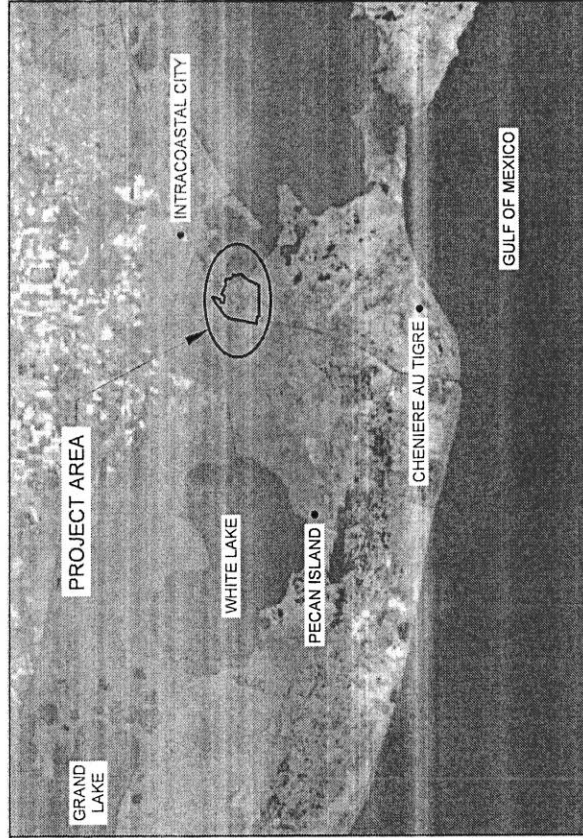
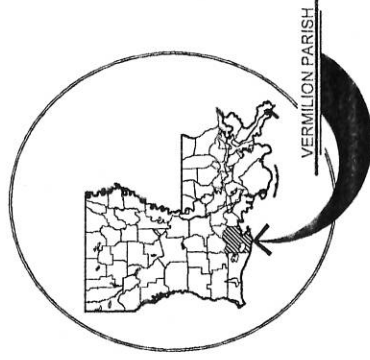
INDEX TO SHEETS

SHEET NO. DESCRIPTION

- 1 TITLE SHEET
- 2 PROJECT LAYOUT
- 3 BORROW AREA PLAN VIEW
- 4-5 MARSH CREATION PLAN VIEW
- 6 TEMPORARY EQUIPMENT ACCESS
- 7 TYPICAL SECTION
- 8 BORROW AREA
- 9 TYPICAL SECTIONS
- 10 DREDGE PIPELINE CROSSING
- 11 TYPICAL SECTION
- 12 MARSH CREATION
- 13 TYPICAL SECTIONS
- 14 WATER CONTROL STRUCTURES

STATE OF LOUISIANA  
COASTAL PROTECTION AND RESTORATION AUTHORITY

COLE'S BAYOU  
MARSH RESTORATION PROJECT  
TV-63  
VERMILION PARISH



CONSTRUCTION PERMIT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	TITLE SHEET
	DESIGNED BY: AMANDA TAYLOR, E.I.	APPROVED BY: SHANNON HAYNES, P.E.		
DRAWN BY: SHANE FAUST	STATE PROJECT NUMBER: TV-63		DATE: FEBRUARY 2016	SHEET 1 OF 49



**NOTES:**

- THE BORROW AREA VOLUME EXCEEDS THE FILL VOLUME TO ACCOUNT FOR THE FOLLOWING:
- PROJECT LOSSES DURING CONSTRUCTION (A 2:1 CUT TO FILL RATIO IS AN INDUSTRY STANDARD).
  - IF ADDITIONAL PROJECT FUNDING BECOMES AVAILABLE, THE ADDITIONAL BORROW MATERIAL CAN BE USED TO NOURISH THE MARSH NOURISHMENT AREAS SHOWN. FLEXIBILITY IN CHOICE OF CONSTRUCTION EQUIPMENT AND THUS A CHEAPER UNIT COST.

FRESHWATER BAYOU CHANNEL

COLE'S BAYOU

MARSH CREATION AREA 1

MARSH CREATION AREA 2

MARSH CREATION AREA 3

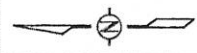
**ACCESS EXCAVATION AREA CENTERLINE COORDINATES**

	LATITUDE	LONGITUDE
1	29° 45' 08.90"	92° 12' 22.86"
2	29° 44' 27.37"	92° 11' 31.26"
3	29° 43' 46.32"	92° 11' 40.45"
4	29° 43' 2.76"	92° 10' 40.17"

3,000' 1,500' 0' 3,000' 6,000'

**LEGEND**

- MARSH CREATION AREA
- MARSH CREATION BORROW AREA
- POTENTIAL MARSH NOURISHMENT AREA
- TEMPORARY ACCESS EXCAVATION AREA
- TEMPORARY SPOIL PLACEMENT AREA
- SPOIL PLACEMENT
- EARTHEN CONTAINMENT DIKE
- EQUIPMENT ACCESS ALIGNMENT
- DREDGE PIPELINE ALIGNMENT
- WATER CONTROL STRUCTURE
- EARTHEN PLUG



LITTLE VERMILION BAY

MCILHENNY CANAL

EARTHEN PLUG (SEE SHEET 31)

POTENTIAL MARSH NOURISHMENT (TYP.)

MARSH CREATION BORROW AREA

**ESTIMATED QUANTITIES**

SITE	VOLUME (CY)	AREA (ACRES)
BORROW AREA	2,855,221	193
MARSH CREATION AREA 1	79,557	28
MARSH CREATION AREA 2	342,362	108
MARSH CREATION AREA 3	1,406,162	282

APPLICATION BY:

COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

**COASTAL PROTECTION AND RESTORATION AUTHORITY**  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU  
MARSH RESTORATION

PROJECT LAYOUT

DATE: FEBRUARY 2016

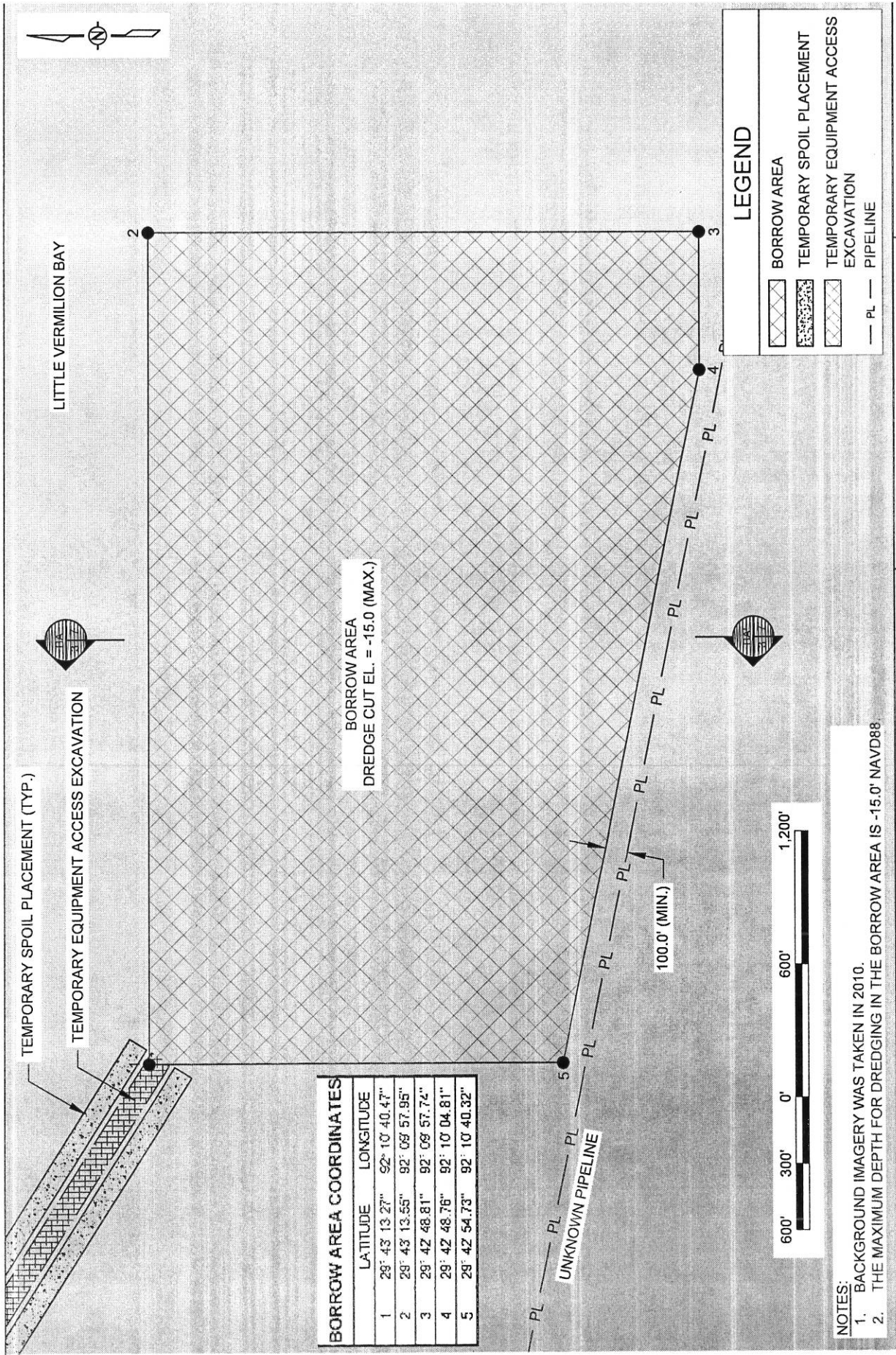
STATE PROJECT NUMBER: TV-63

DRAWN BY: SHANE FAUST

DESIGNED BY: AMANDA TAYLOR, E.I.

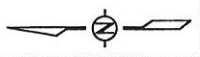
FEDERAL PROJECT NUMBER: TV-63

SHEET 2 OF 49



COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	BORROW AREA PLAN VIEW
	DESIGNED BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
DRAWN BY: SHANE FAUST	FEDERAL PROJECT NUMBER: TV-63			
SHEET 3 OF 47				





CENTERLINE COORDINATES

	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
1	29° 44' 17.04"	92° 13' 42.93"	20	29° 43' 56.15"	92° 13' 48.95"
2	29° 44' 20.99"	92° 13' 37.09"	21	29° 43' 53.10"	92° 13' 49.58"
3	29° 44' 22.27"	92° 13' 33.35"	22	29° 43' 49.78"	92° 13' 49.11"
4	29° 44' 21.99"	92° 13' 30.13"	23	29° 43' 42.48"	92° 13' 50.80"
5	29° 44' 21.85"	92° 13' 27.77"	24	29° 43' 37.38"	92° 13' 53.73"
6	29° 44' 22.19"	92° 13' 25.38"	25	29° 43' 37.17"	92° 13' 58.01"
7	29° 44' 24.84"	92° 13' 24.84"	26	29° 43' 38.17"	92° 14' 01.20"
8	29° 44' 27.91"	92° 13' 21.90"	27	29° 43' 39.83"	92° 14' 03.97"
9	29° 44' 26.98"	92° 13' 20.36"	28	29° 43' 39.29"	92° 14' 07.28"
10	29° 44' 24.90"	92° 13' 21.09"	29	29° 43' 41.46"	92° 14' 07.47"
11	29° 44' 19.60"	92° 13' 20.51"	30	29° 43' 41.80"	92° 14' 14.04"
12	29° 44' 16.92"	92° 13' 23.93"	31	29° 43' 44.30"	92° 14' 12.97"
13	29° 44' 15.35"	92° 13' 28.32"	32	29° 43' 46.55"	92° 14' 10.10"
14	29° 44' 14.90"	92° 13' 32.98"	33	29° 43' 49.14"	92° 14' 11.02"
15	29° 44' 13.88"	92° 13' 36.06"	34	29° 43' 55.89"	92° 14' 12.11"
16	29° 44' 14.16"	92° 13' 39.48"	35	29° 43' 59.18"	92° 14' 08.70"
17	29° 44' 14.98"	92° 13' 41.91"	36	29° 44' 01.03"	92° 14' 02.93"
18	29° 44' 06.79"	92° 13' 51.24"	37	29° 44' 06.02"	92° 13' 57.50"
19	29° 44' 03.55"	92° 13' 44.06"			

MARSH CREATION  
AREA 1

FRESHWATER BAYOU CHANNEL

COLE'S BAYOU

MARSH CREATION  
AREA 2

LEGEND

- MARSH CREATION AREA
- EARTHEN CONTAINMENT DIKE
- PL PIPELINE

NOTES:

- BACKGROUND IMAGERY WAS TAKEN IN 2013.
- NOT ALL FEATURES WERE SHOWN FOR CLARITY PURPOSES.

APPLICATION BY:  
COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

COASTAL PROTECTION AND  
RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU  
MARSH RESTORATION

MARSH CREATION 1 & 2  
PLAN VIEW

DRAWN BY: SHANE FAUST

DESIGNED BY: AMANDA TAYLOR, E.I.

APPROVED BY: SHANNON HAYNES, P.E.

STATE PROJECT NUMBER: TV-63

DATE: FEBRUARY 2016

FEDERAL PROJECT NUMBER: TV-63

SHEET 4 OF 49

# EARTHEN CONTAINMENT DIKE COORDINATES

	LATITUDE	LONGITUDE
1	29° 42' 37.52"	92° 14' 23.29"
2	29° 42' 42.65"	92° 14' 22.45"
3	29° 42' 42.83"	92° 14' 14.62"
4	29° 42' 46.52"	92° 14' 13.23"
5	29° 42' 50.67"	92° 14' 09.96"
6	29° 42' 54.23"	92° 14' 14.38"
7	29° 42' 58.19"	92° 14' 15.46"
8	29° 43' 01.21"	92° 14' 16.97"
9	29° 43' 07.45"	92° 14' 18.66"
10	29° 43' 05.58"	92° 14' 09.79"
11	29° 43' 05.29"	92° 14' 02.88"
12	29° 43' 01.59"	92° 14' 02.75"
13	29° 42' 55.92"	92° 13' 53.87"
14	29° 43' 05.96"	92° 13' 34.33"
15	29° 43' 09.74"	92° 13' 34.24"
16	29° 43' 14.45"	92° 13' 31.70"
17	29° 43' 16.34"	92° 13' 22.98"
18	29° 43' 14.379"	92° 13' 19.89"
19	29° 43' 11.13"	92° 13' 18.08"
20	29° 43' 08.66"	92° 13' 12.51"
21	29° 43' 04.32"	92° 13' 04.26"
22	29° 43' 05.30"	92° 12' 59.31"
23	29° 43' 07.26"	92° 12' 57.44"
24	29° 43' 07.29"	92° 12' 52.01"
25	29° 42' 59.15"	92° 12' 49.78"

# EARTHEN CONTAINMENT DIKE COORDINATES

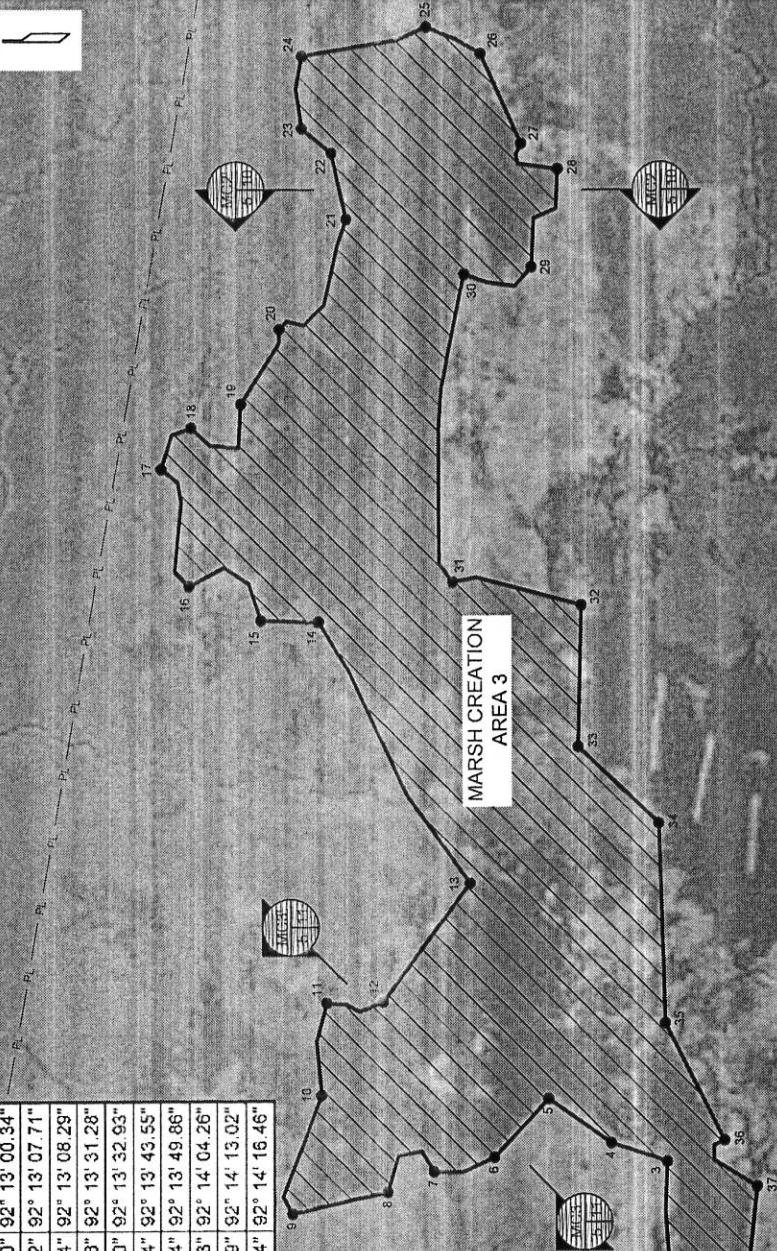
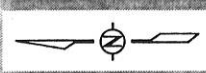
26	29° 42' 55.55"	92° 12' 51.74"
27	29° 42' 52.85"	92° 12' 58.47"
28	29° 42' 50.40"	92° 13' 00.34"
29	29° 42' 52.12"	92° 13' 07.71"
30	29° 42' 56.54"	92° 13' 08.29"
31	29° 42' 57.18"	92° 13' 31.28"
32	29° 42' 48.70"	92° 13' 32.93"
33	29° 42' 48.84"	92° 13' 43.55"
34	29° 42' 43.24"	92° 13' 49.86"
35	29° 42' 43.03"	92° 14' 04.26"
36	29° 42' 39.09"	92° 14' 13.02"
37	29° 42' 36.94"	92° 14' 16.46"

FRESHWATER BAYOU CHANNEL



## NOTES:

1. BACKGROUND IMAGERY WAS TAKEN IN 2013.
2. NOT ALL FEATURES WERE SHOWN FOR CLARITY PURPOSES.



## LEGEND

- MARSH CREATION AREA
- EARTHEN CONTAINMENT DIKE
- PL PIPELINE

APPLICATION BY:  
COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

COASTAL PROTECTION AND  
RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU  
MARSH RESTORATION

MARSH CREATION 3  
PLAN VIEW

DRAWN BY: SHANE FAUST

DESIGNED BY: AMANDA TAYLOR, E.I.

APPROVED BY: SHANNON HAYNES, P.E.

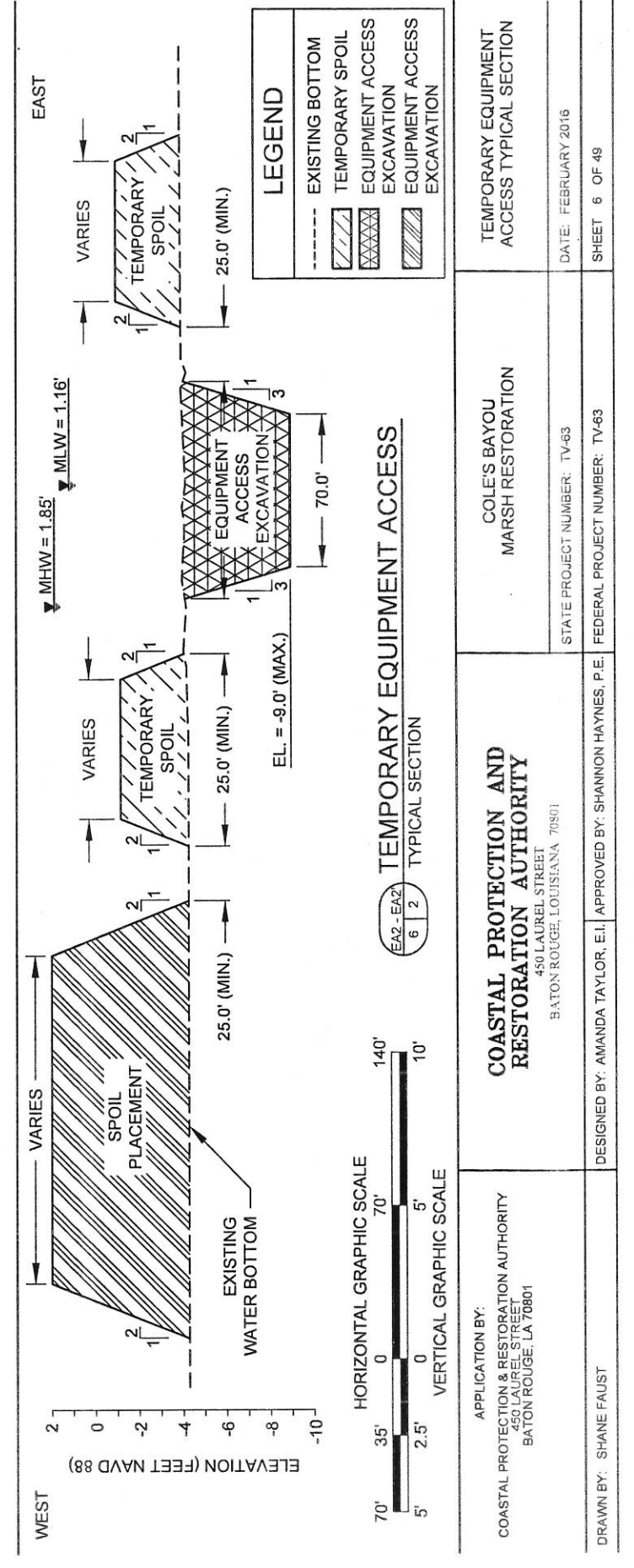
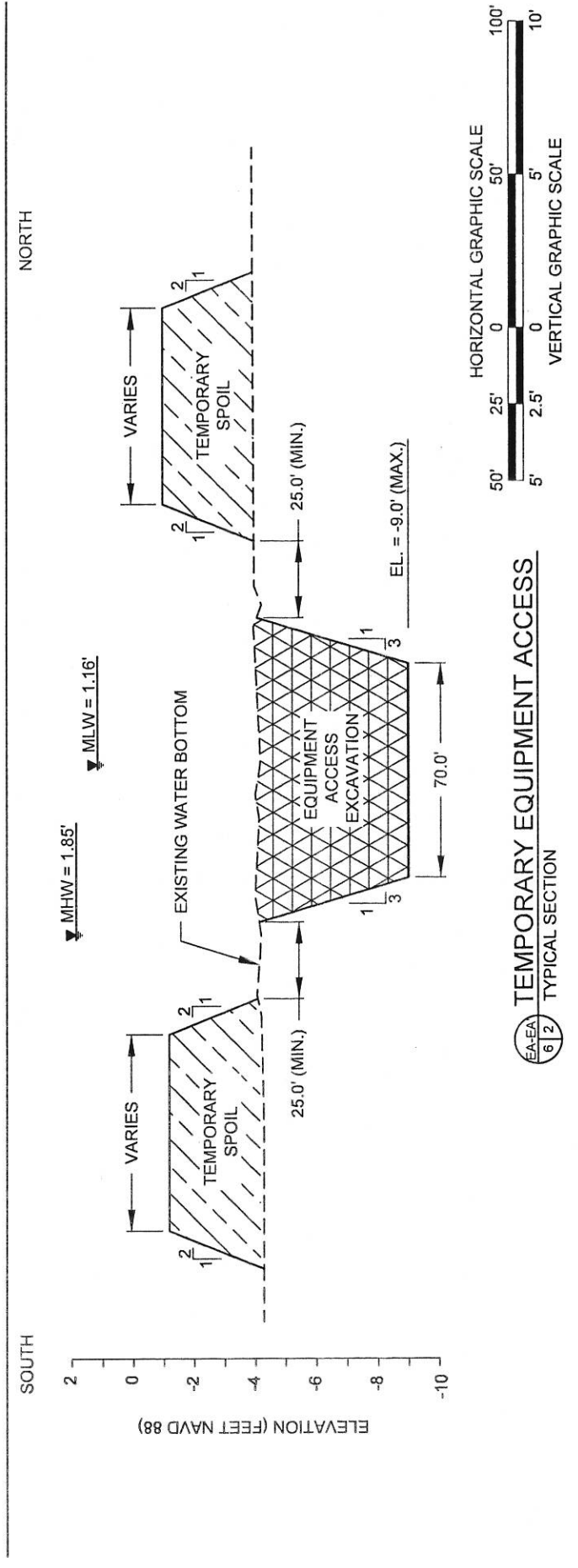
STATE PROJECT NUMBER: TV-63

DATE: FEBRUARY 2016

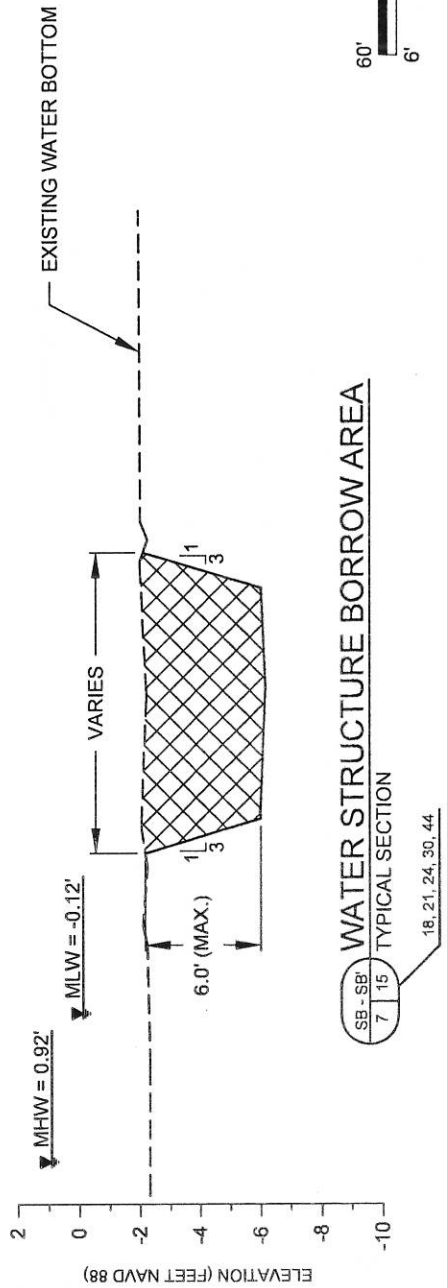
FEDERAL PROJECT NUMBER: TV-63

SHEET 5 OF 49



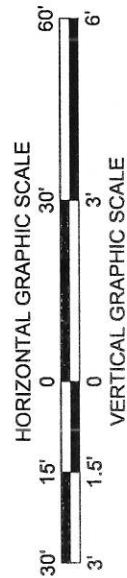
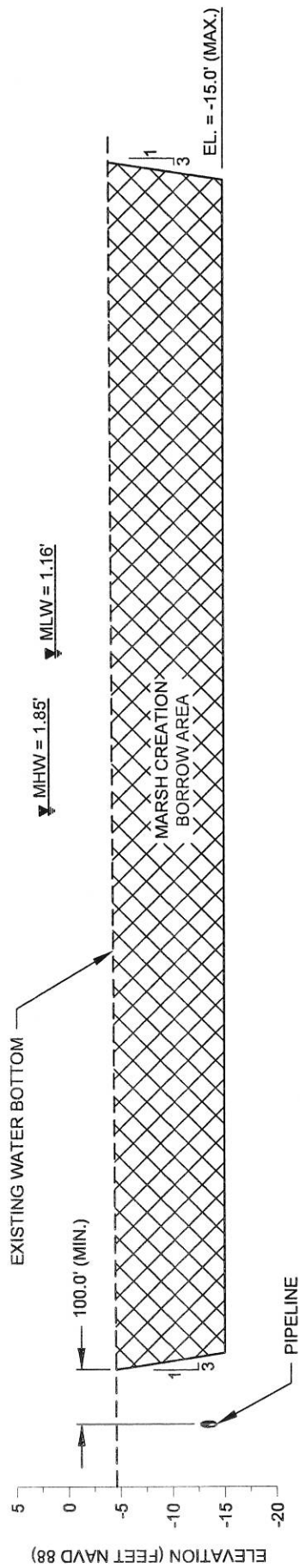


APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	TEMPORARY EQUIPMENT ACCESS TYPICAL SECTION
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	APPROVED BY: SHANNON HAYNES, P.E.	
	STATE PROJECT NUMBER: TV-63	FEDERAL PROJECT NUMBER: TV-63	
	DATE: FEBRUARY 2016		
			SHEET 6 OF 49

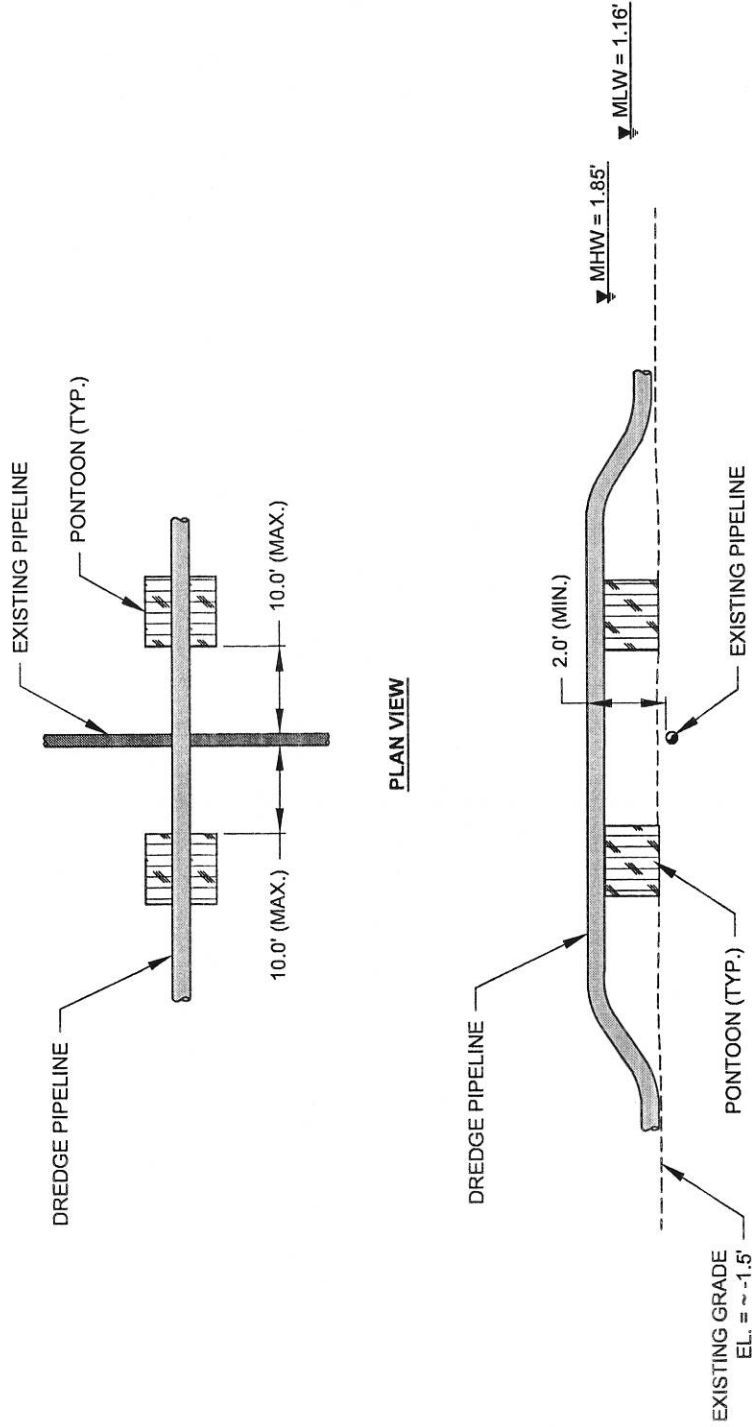


SOUTH

NORTH



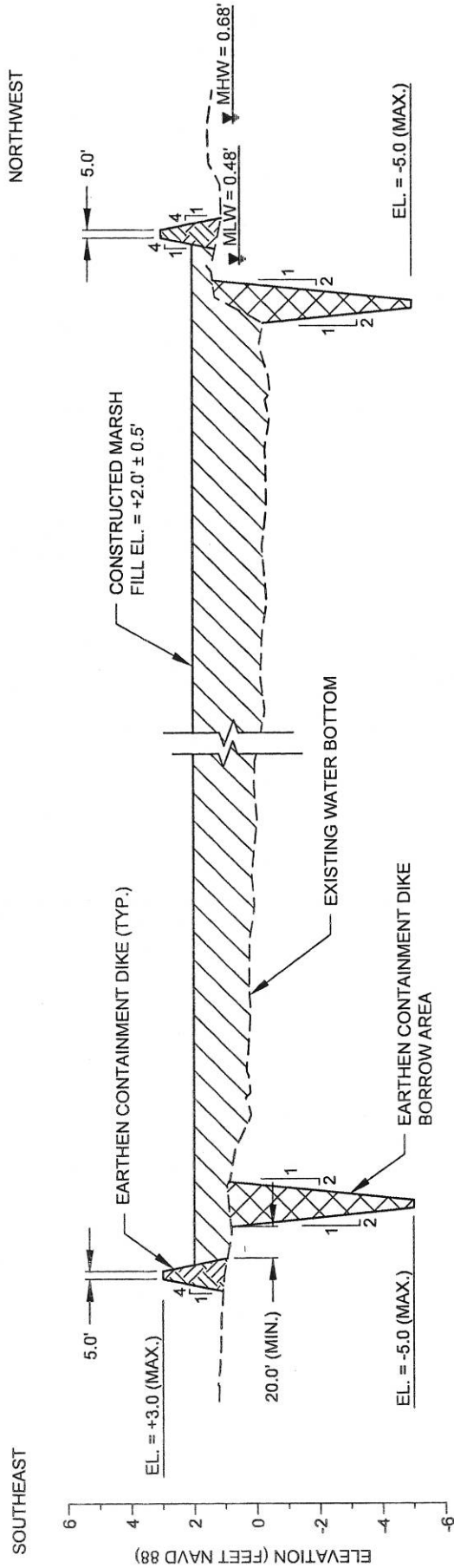
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	BORROW AREA TYPICAL SECTIONS
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 7 OF 49



LEGEND	
---	EXISTING BOTTOM
▬	EXISTING PIPELINE
▨	DREDGE PIPELINE
▧	PONTOON

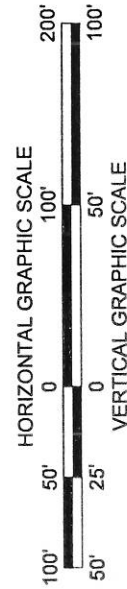
**DREDGE PIPELINE CROSSING**  
TYPICAL SECTION - NTS

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COLE'S BAYOU MARSH RESTORATION		DREDGE PIPELINE CROSSING TYPICAL SECTION
	DESIGNED BY: AMANDA TAYLOR, E.I. DRAWN BY: SHANE FAUST	BATON ROUGE, LOUISIANA 70801 STATE PROJECT NUMBER: TV-63 DATE: FEBRUARY 2016	APPROVED BY: SHANNON HAYNES, P.E. FEDERAL PROJECT NUMBER: TV-63 SHEET 8 OF 49

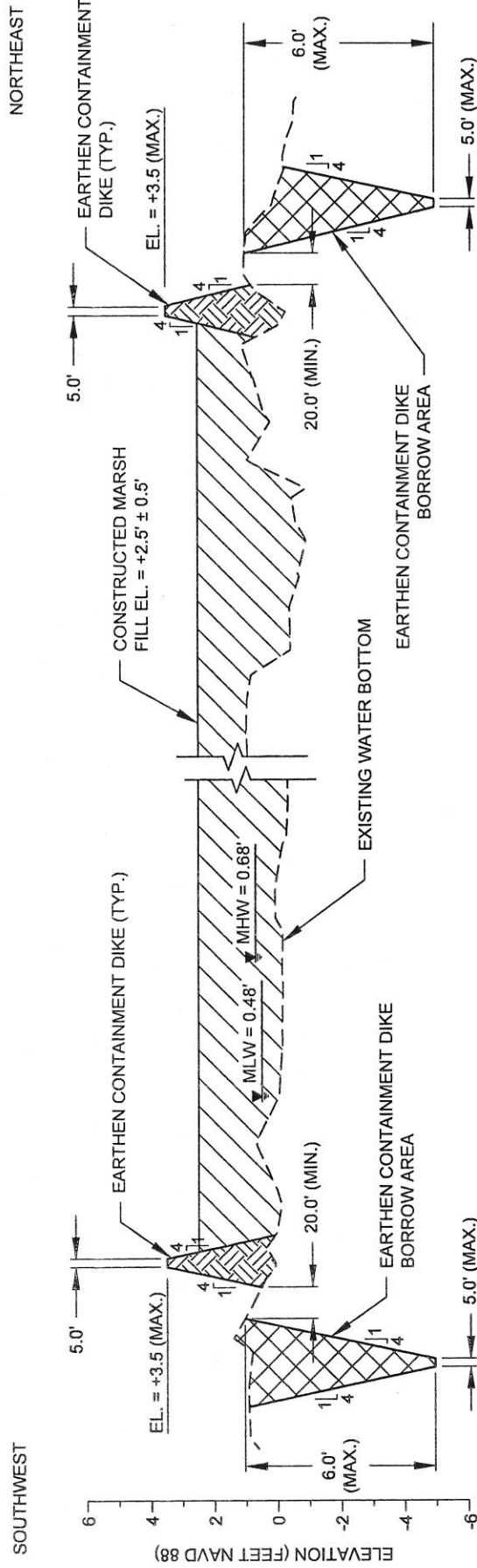


**MARSH CREATION**  
TYPICAL SECTION

LEGEND	
---	EXISTING BOTTOM
	EARTHEN CONTAINMENT DIKE
	MARSH FILL
	EARTHEN CONTAINMENT DIKE BORROW AREA



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COLE'S BAYOU MARSH RESTORATION		MARSH CREATION 1 & 2 TYPICAL SECTION
	DESIGNED BY: AMANDA TAYLOR, E.I. DRAWN BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E. 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	STATE PROJECT NUMBER: TV-63 DATE: FEBRUARY 2016 FEDERAL PROJECT NUMBER: TV-63 SHEET 9 OF 49

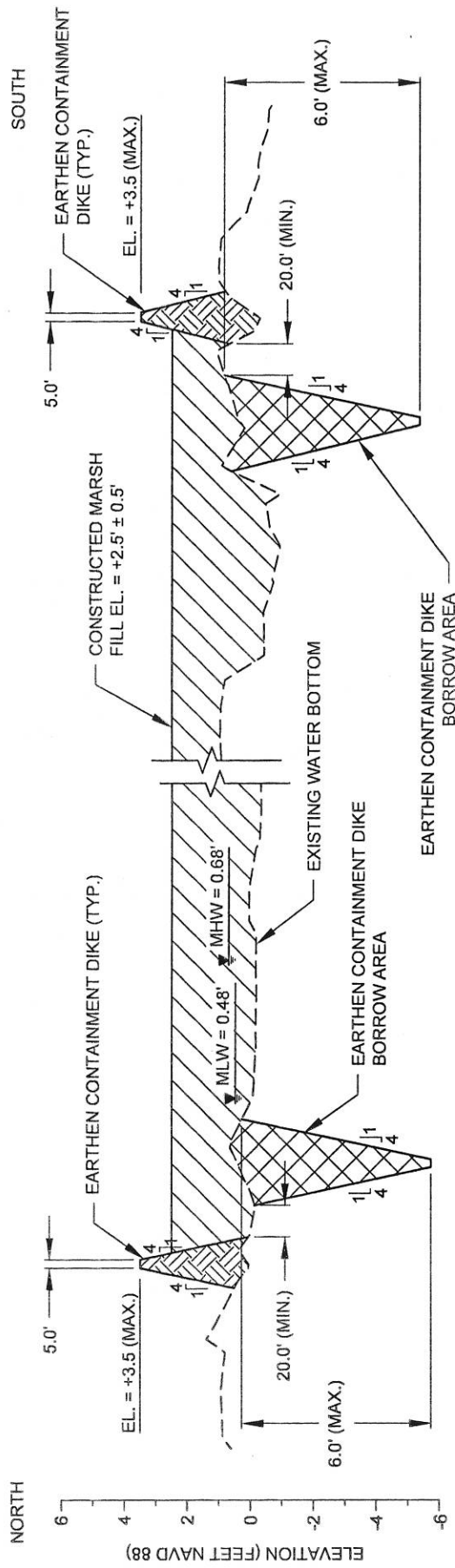


**MARSH CREATION**  
TYPICAL SECTION

LEGEND	
---	EXISTING BOTTOM
	EARTHEN CONTAINMENT DIKE
	MARSH FILL
	EARTHEN CONTAINMENT DIKE BORROW AREA

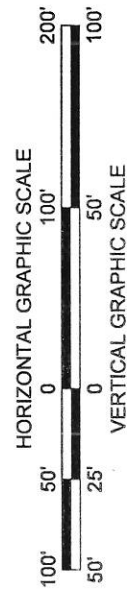


APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COLE'S BAYOU MARSH RESTORATION	MARSH CREATION 3 TYPICAL SECTION
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	STATE PROJECT NUMBER: TV-63
		DATE: FEBRUARY 2016 SHEET 10 OF 49



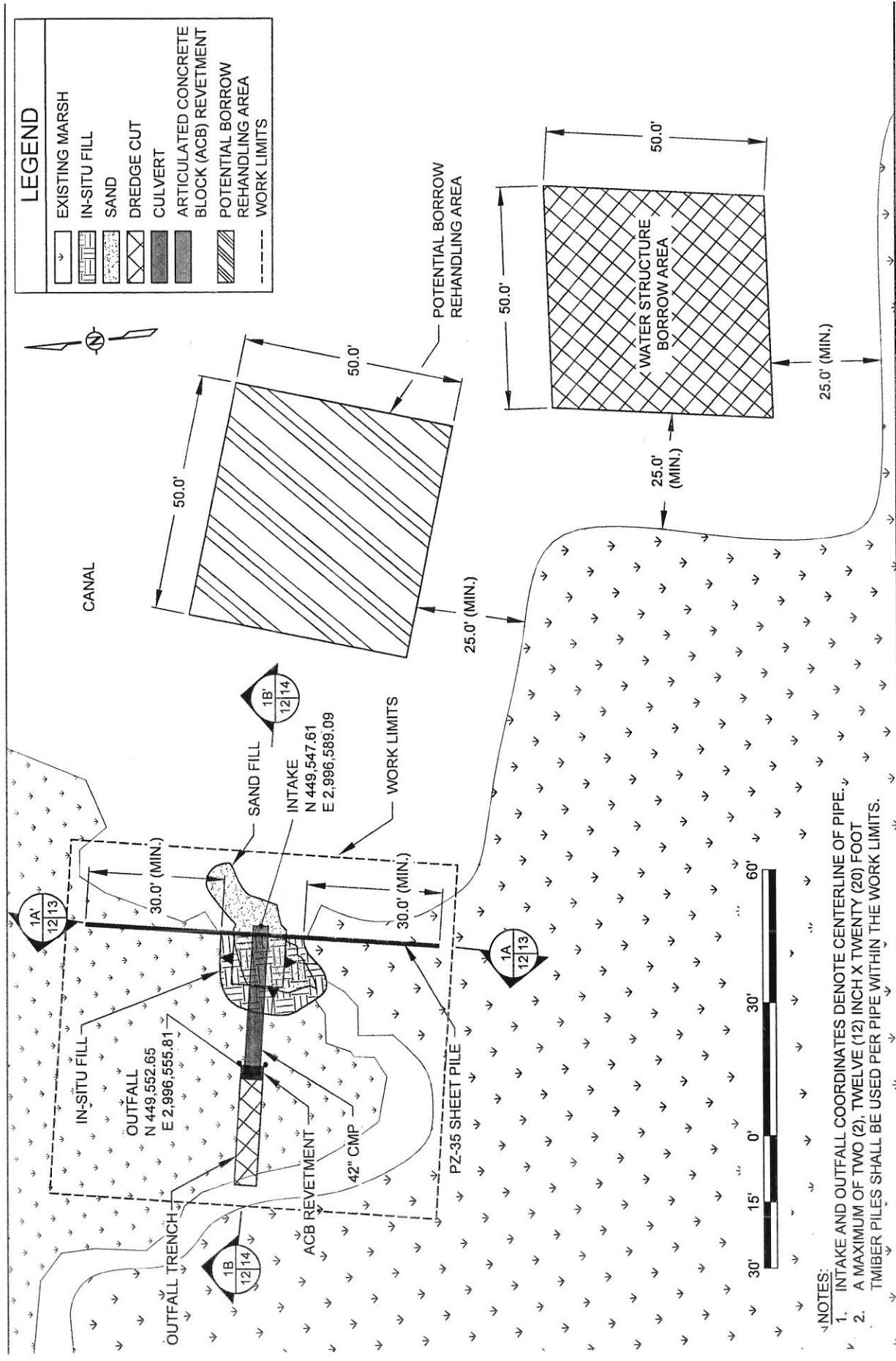
**MARSH CREATION**  
TYPICAL SECTION

LEGEND	
---	EXISTING BOTTOM
	EARTHEN CONTAINMENT DIKE
	MARSH FILL
	EARTHEN CONTAINMENT DIKE BORROW AREA



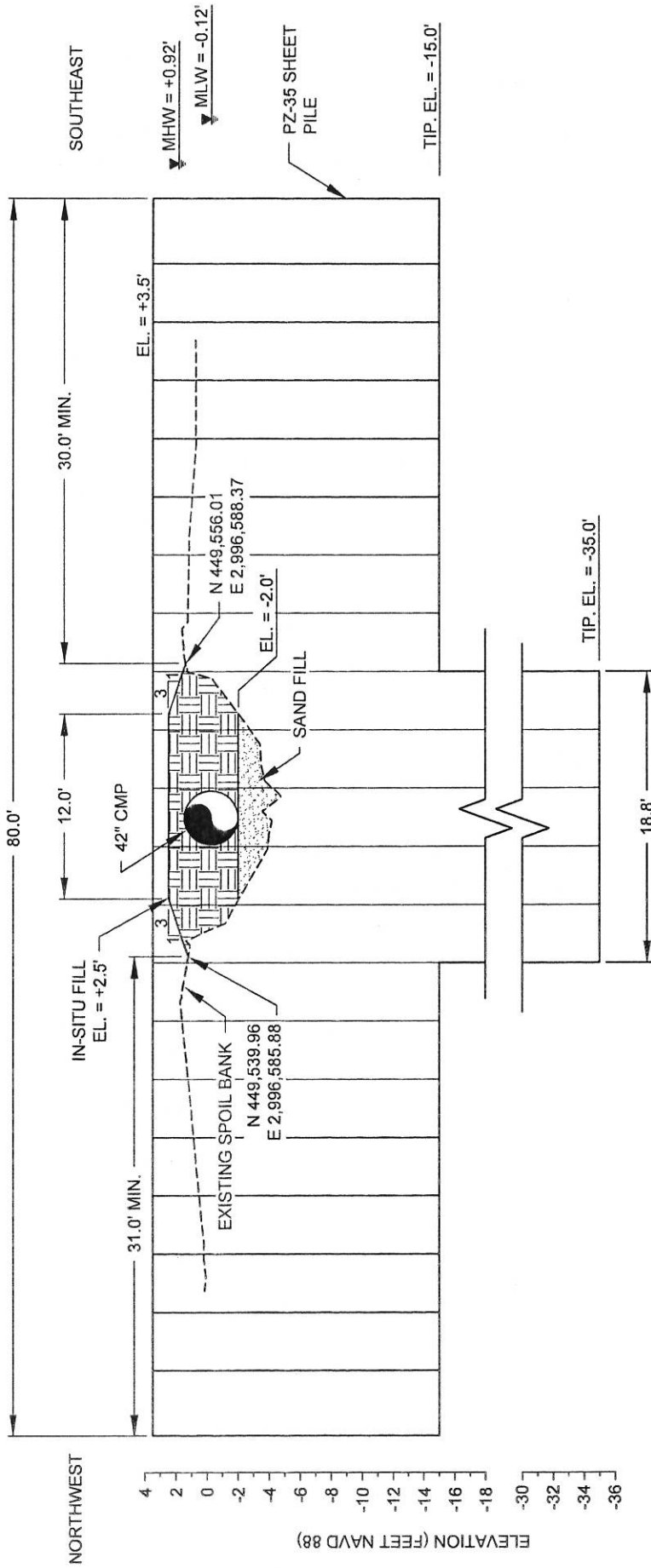
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COLE'S BAYOU MARSH RESTORATION	MARSH CREATION 3 TYPICAL SECTION
DRAWN BY: SHANE FAUST	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
		FEDERAL PROJECT NUMBER: TV-63 SHEET 11 OF 49





- NOTES:
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPE.
  2. A MAXIMUM OF TWO (2), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 1 PLAN VIEW
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63 DATE: FEBRUARY 2016 SHEET 12 OF 49









SECTION  
1A-1A  
1312 TYPICAL



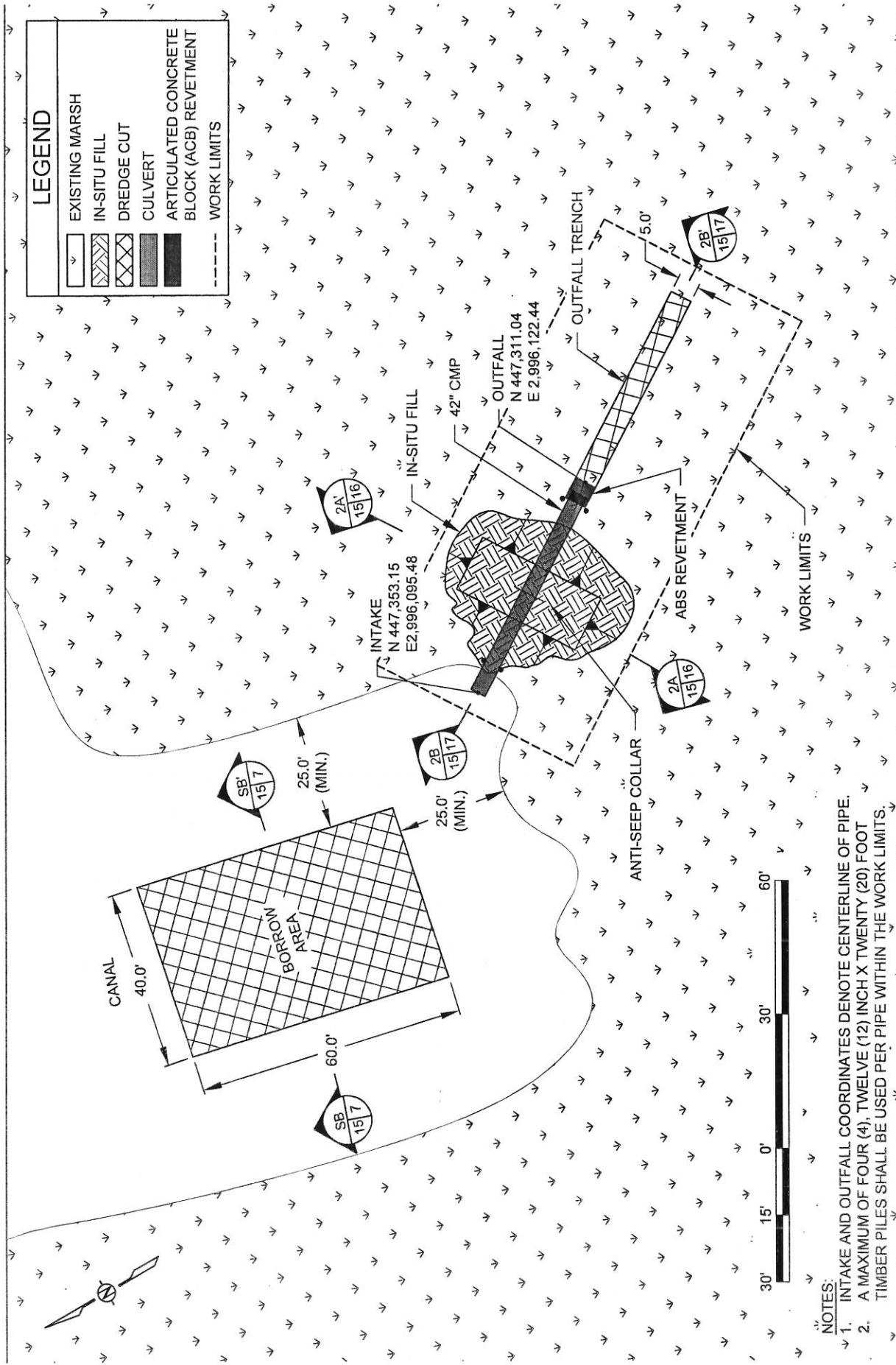
LEGEND	
	IN-SITU FILL
	SAND FILL
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 1 SECTION VIEW
	DESIGNED BY: SHANE FAUST	APPROVED BY: AMANDA TAYLOR, E.I.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 13 OF 49



LEGEND	
	IN-SITU FILL
	SAND FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	EXISTING BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 1 PROFILE VIEW
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I. APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 14 OF 49



# LEGEND

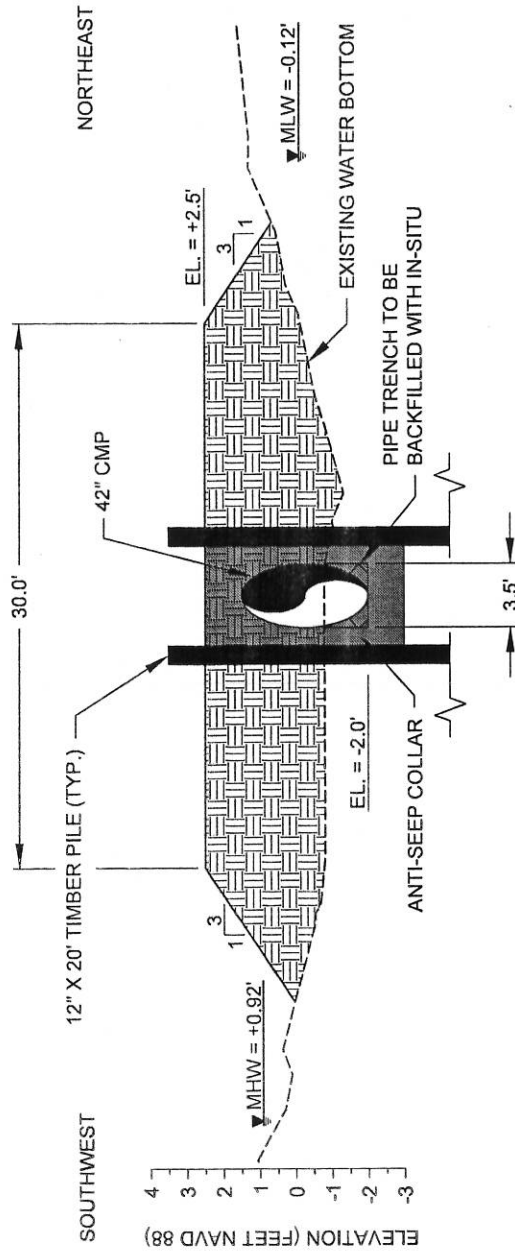
- EXISTING MARSH
- IN-SITU FILL
- DREDGE CUT
- CULVERT
- ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
- WORK LIMITS

- NOTES:
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPE.
  2. A MAXIMUM OF FOUR (4), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

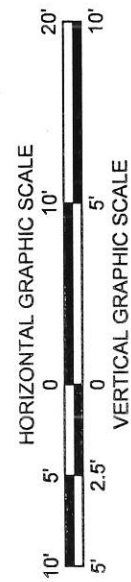
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION  STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	WATER CONTROL STRUCTURE 2 PLAN VIEW  DATE: FEBRUARY 2016 SHEET 15 OF 49
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DRAWN BY: SHANE FAUST

DESIGNED BY: AMANDA TAYLOR, E.I., APPROVED BY: SHANNON HAYNES, P.E.



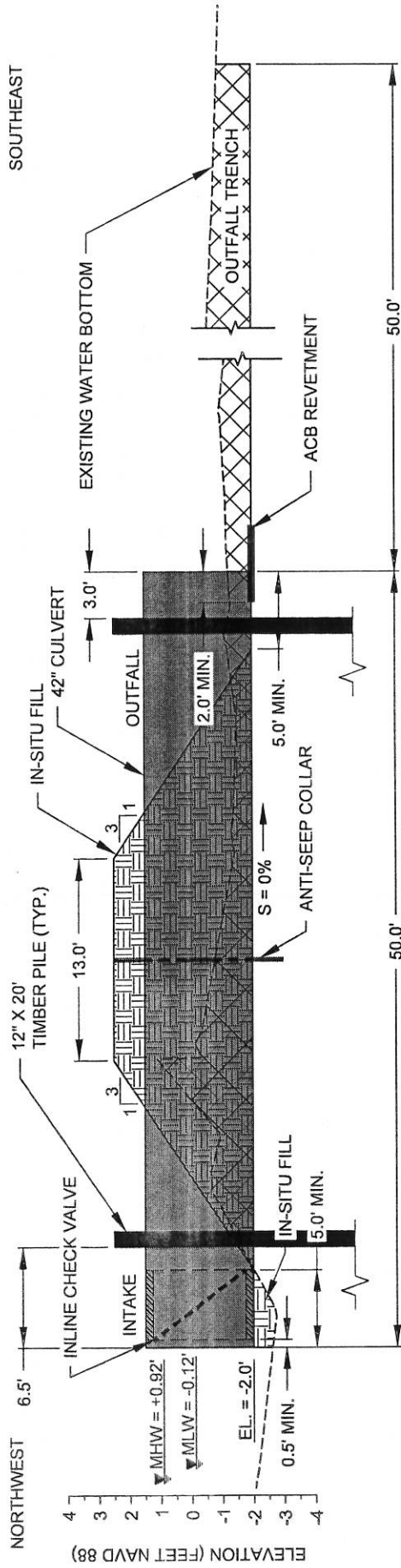
SECTION  
2A-2A  
16/15  
TYPICAL



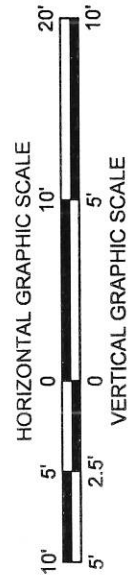
NOTE:  
THE INLINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

LEGEND	
	IN-SITU FILL
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 2 SECTION VIEW
	DESIGNED BY: AMANDA TAYLOR, E.I. DRAWN BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E. STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 16 OF 49	



**PROFILE**  
TYPICAL SECTION

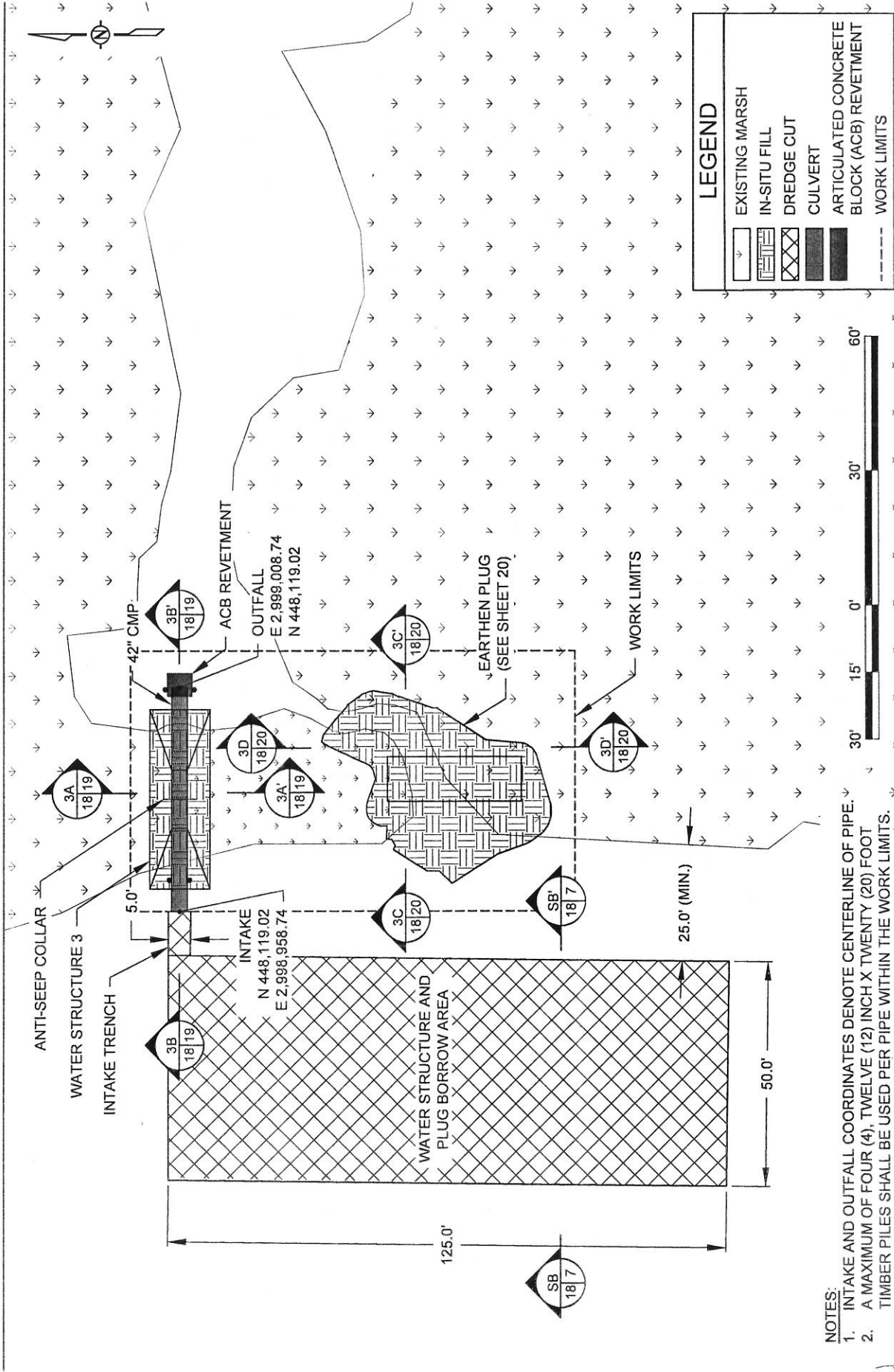


**NOTE:**  
THE INLINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

LEGEND	
[Pattern]	IN-SITU FILL
[Pattern]	DREDGE CUT
[Pattern]	CULVERT
[Pattern]	ARTICULATED CONCRETE
[Pattern]	BLOCK (ACB) REVETMENT
[Pattern]	EXISTING BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 2 PROFILE VIEW
			DATE: FEBRUARY 2016 SHEET 17 OF 49





APPLICATION BY:  
COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

COASTAL PROTECTION AND  
RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU  
MARSH RESTORATION

WATER CONTROL  
STRUCTURE 3  
PLAN VIEW

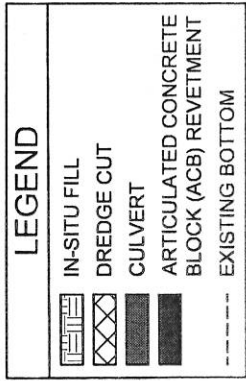
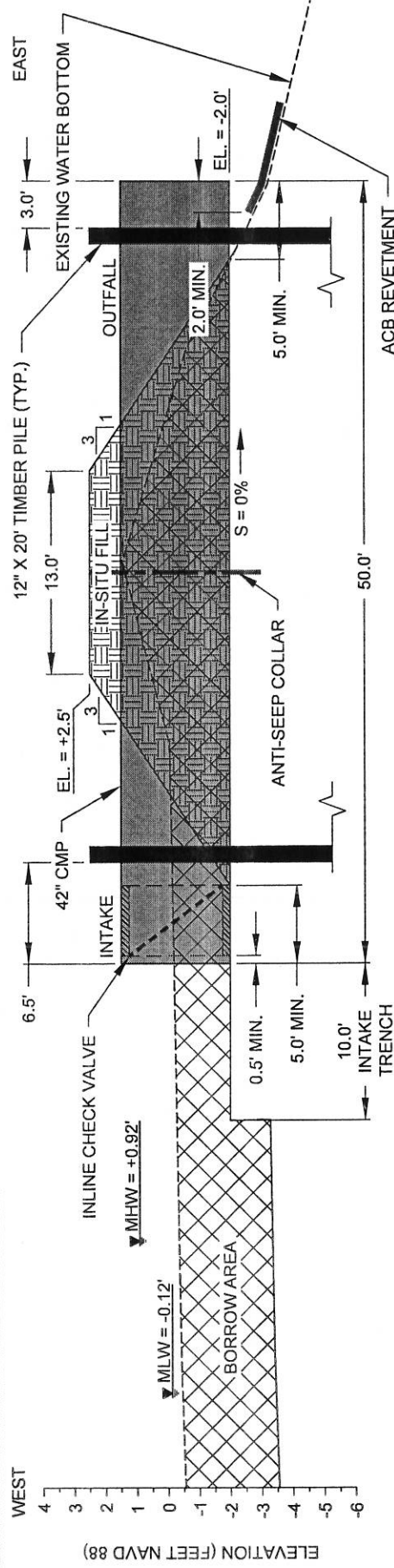
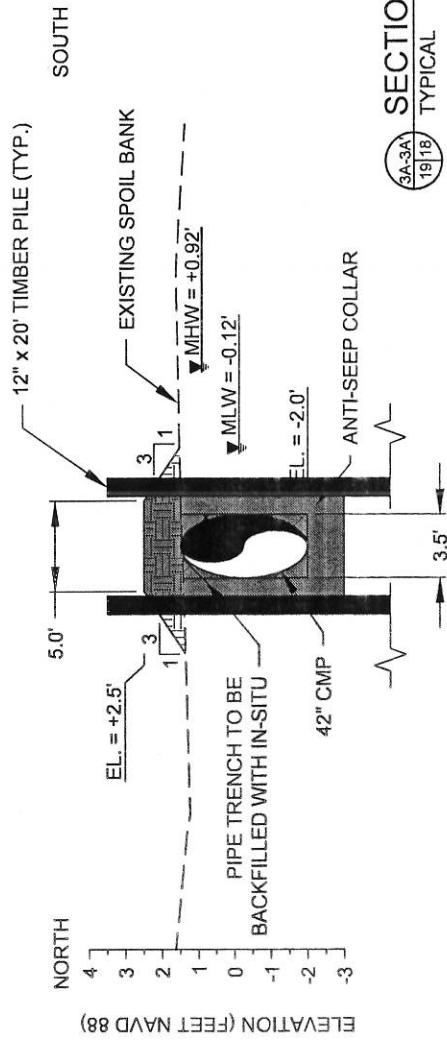
DRAWN BY: SHANE FAUST

DESIGNED BY: AMANDA TAYLOR, E.I., APPROVED BY: SHANNON HAYNES, P.E.

STATE PROJECT NUMBER: TV-63

DATE: FEBRUARY 2016

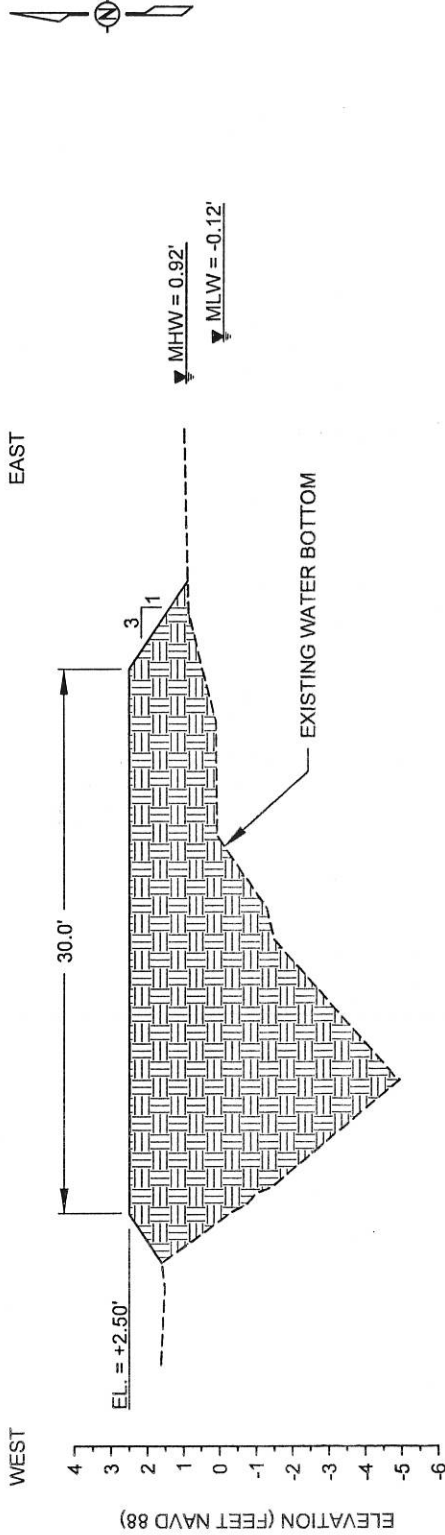
SHEET 18 OF 49



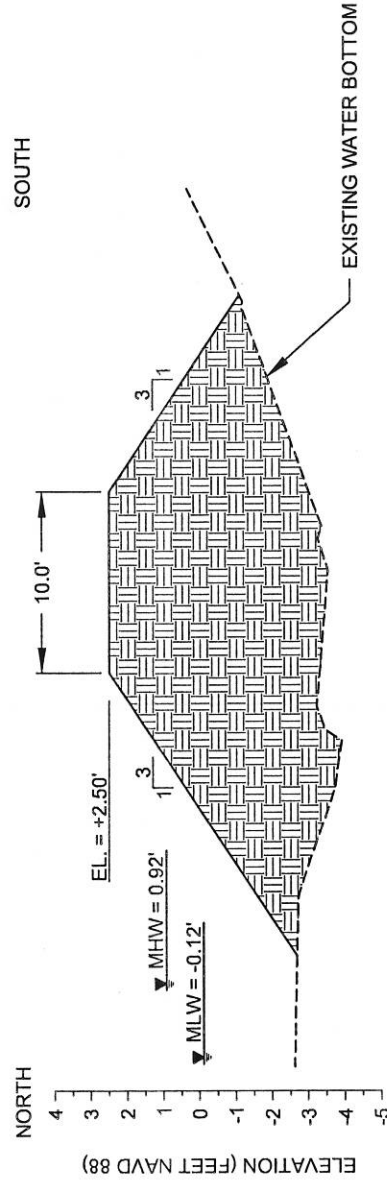
NOTE:  
THE INLINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION  STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	WATER CONTROL STRUCTURE 3 SECTION VIEW  DATE: FEBRUARY 2016 SHEET 19 OF 49
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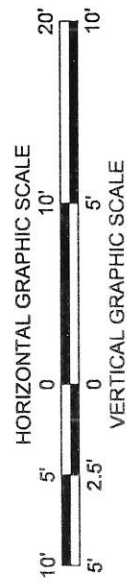




**EARTHEN PLUG**  
TYPICAL SECTION

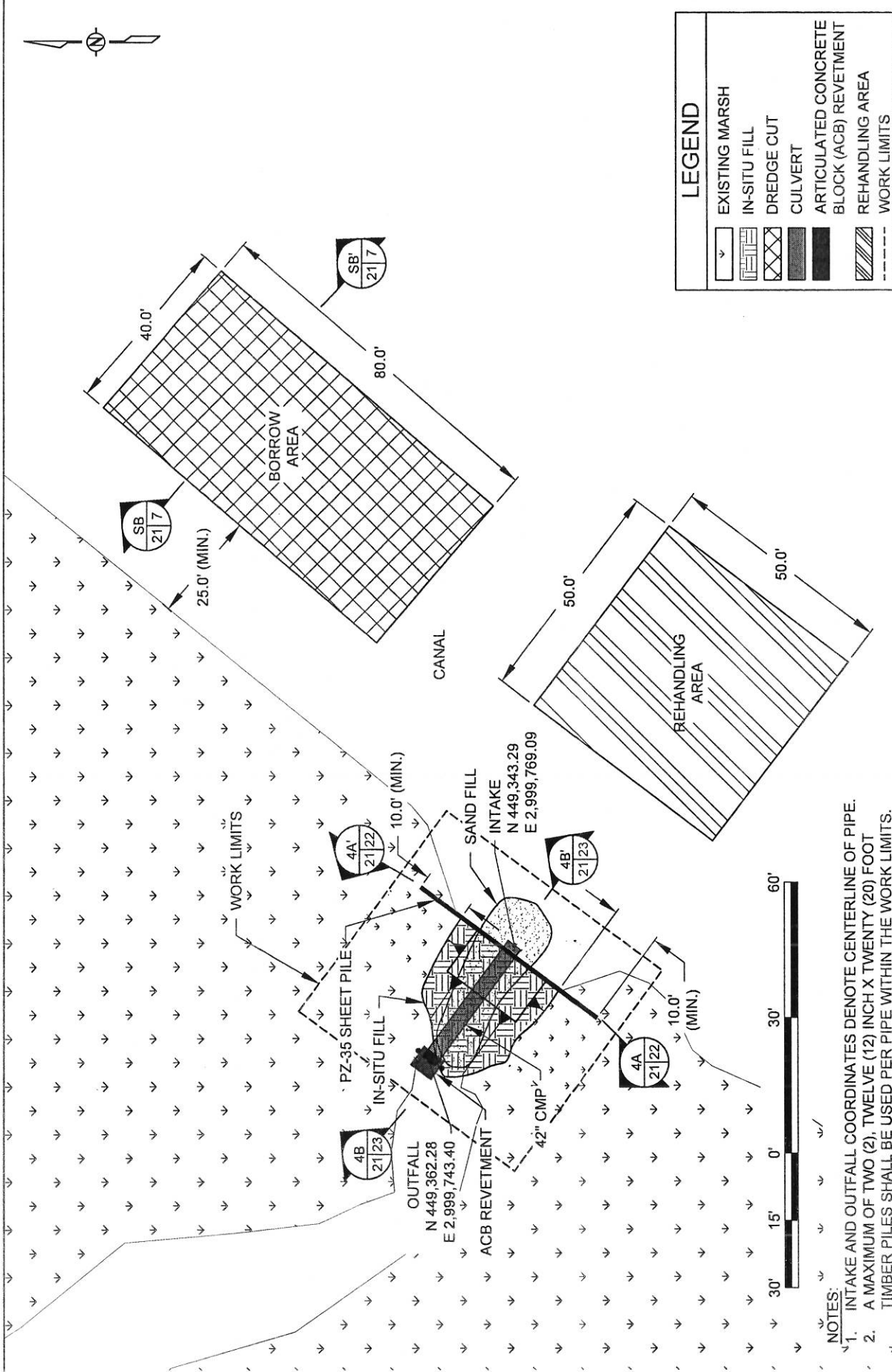


**EARTHEN PLUG**  
PROFILE



LEGEND
IN-SITU FILL
EXISTING BOTTOM

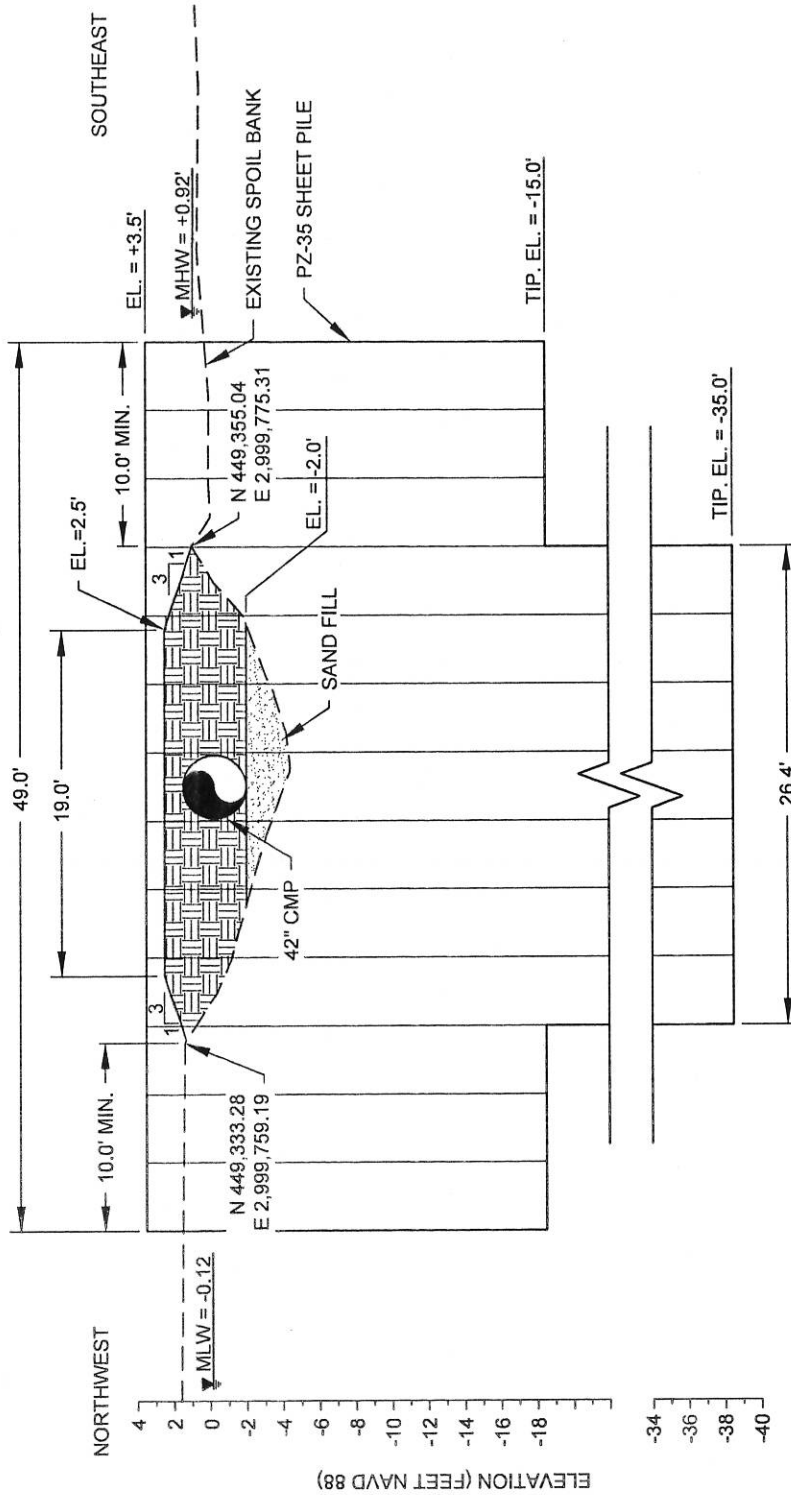
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	EARTHEN PLUG SECTION & PROFILE
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I., APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
		FEDERAL PROJECT NUMBER: TV-63	SHEET 20 OF 49



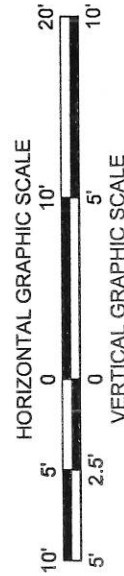
- NOTES:**
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPE.
  2. A MAXIMUM OF TWO (2), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

LEGEND	
	EXISTING MARSH
	IN-SITU FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	REHANDLING AREA
	WORK LIMITS

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 4 PLAN VIEW
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I. APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016	SHEET 21 OF 49
		FEDERAL PROJECT NUMBER: TV-63		

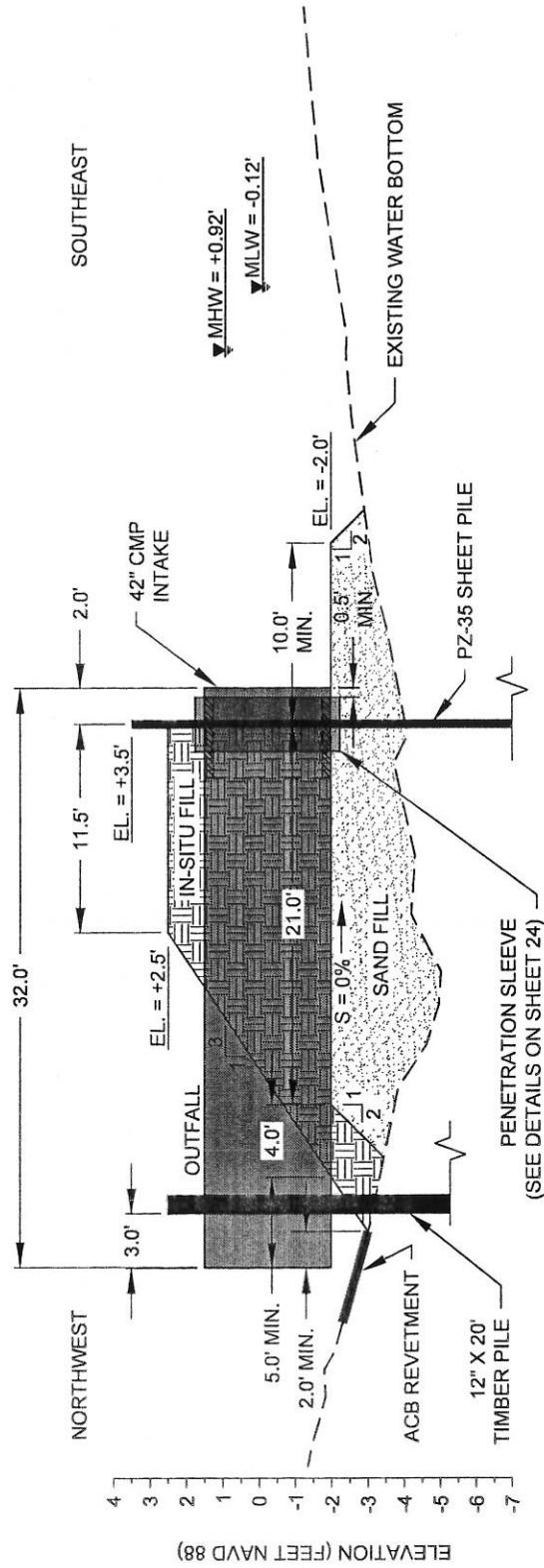


SECTION  
4A-4A  
22/21  
TYPICAL



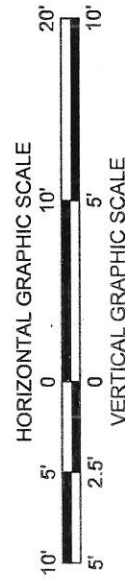
LEGEND	
	IN-SITU FILL
	SAND FILL
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 4 SECTION VIEW
	DESIGNED BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 22 OF 49



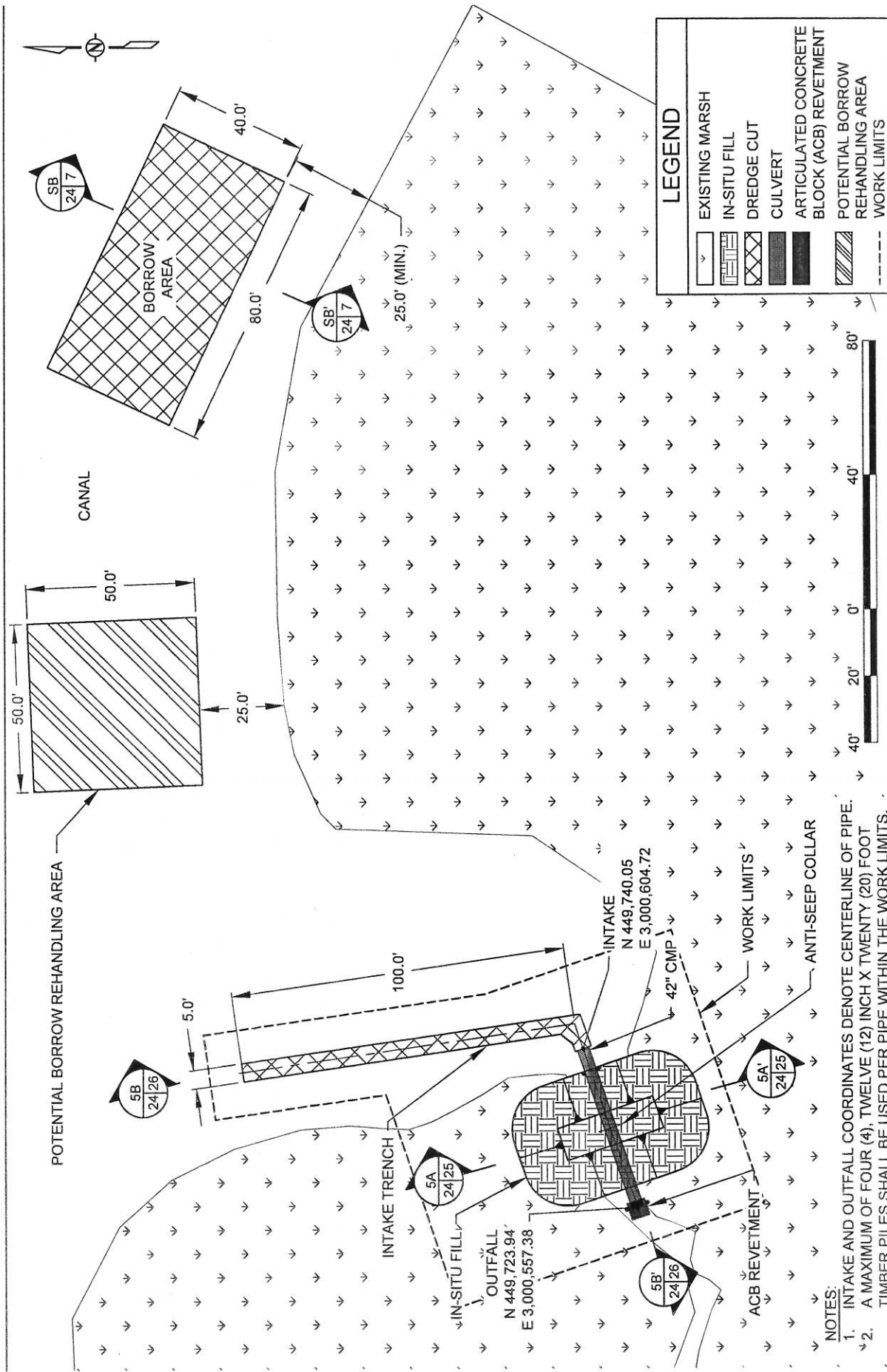
4B-4B  
23/21

PROFILE  
TYPICAL SECTION



LEGEND	
	IN-SITU FILL
	SAND FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	EXISTING BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 3 PROFILE VIEW
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
		FEDERAL PROJECT NUMBER: TV-63	SHEET 23 OF 49



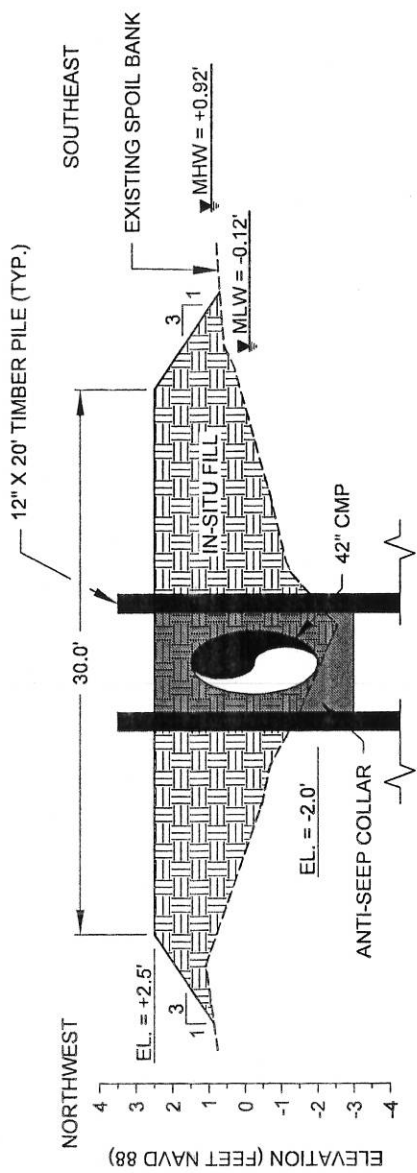
NOTES:  
 1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPE.  
 2. A MAXIMUM OF FOUR (4), TWELVE (12) INCH X TWENTY (20) FOOT  
 TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 5 PLAN VIEW DATE: FEBRUARY 2016 SHEET 24 OF 49
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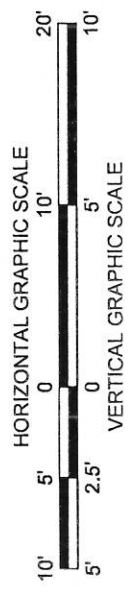
DESIGNED BY: AMANDA TAYLOR, E.I.  
 APPROVED BY: SHANNON HAYNES, P.E.

STATE PROJECT NUMBER: TV-63  
 FEDERAL PROJECT NUMBER: TV-63

DRAWN BY: SHANE FAUST

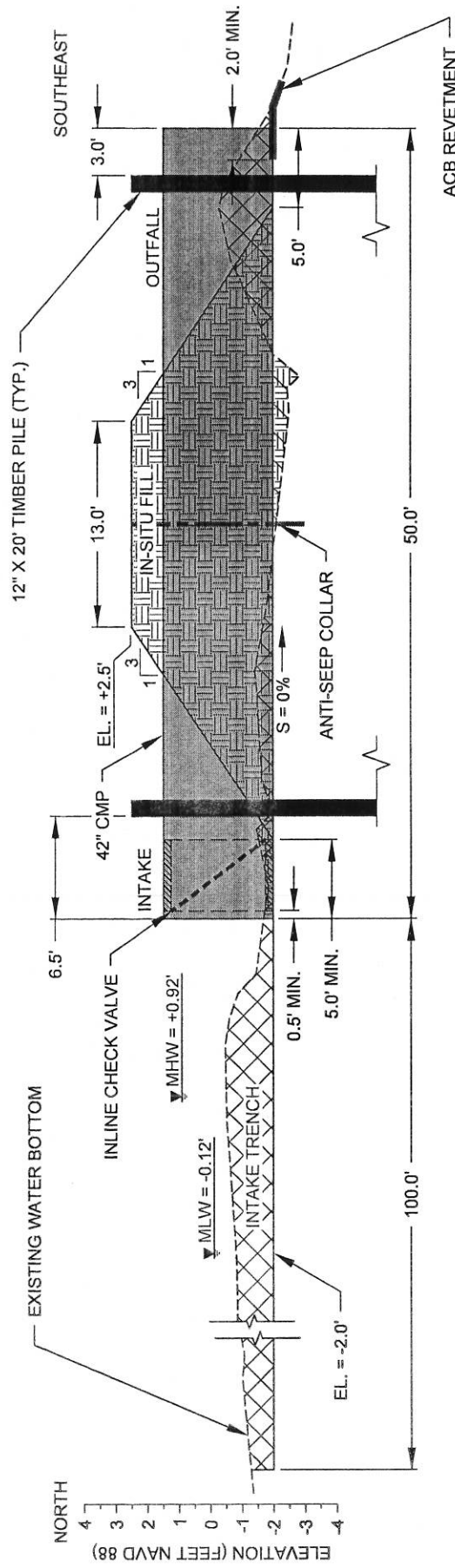


SECTION  
TYPICAL

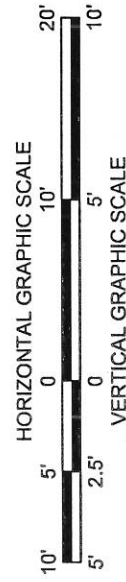


LEGEND	
	IN-SITU FILL
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 4 SECTION VIEW
			DATE: FEBRUARY 2016 SHEET 25 OF 49



**PROFILE**  
TYPICAL SECTION



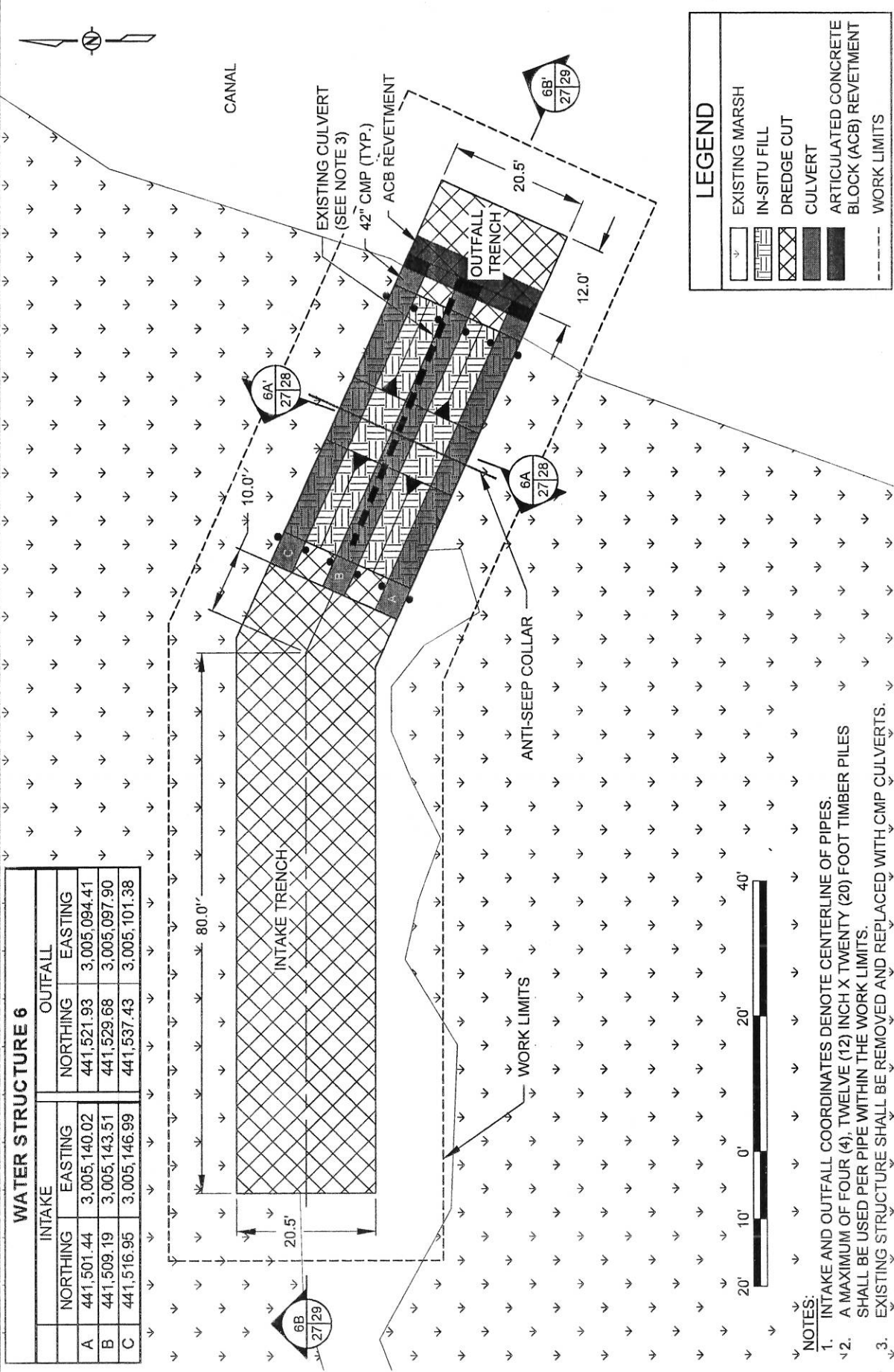
**NOTE:**  
THE INLINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

LEGEND	
[Pattern]	IN-SITU FILL
[Pattern]	DREDGE CUT
[Pattern]	CULVERT
[Pattern]	ARTICULATED CONCRETE
[Pattern]	BLOCK (ACB) REVETMENT
[Pattern]	EXISTING BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 5 PROFILE VIEW
			DATE: FEBRUARY 2016 SHEET 26 OF 49



WATER STRUCTURE 6			
	INTAKE		OUTFALL
	NORTHING	EASTING	NORTHING EASTING
A	441,501.44	3,005,140.02	441,521.93 3,005,094.41
B	441,509.19	3,005,143.51	441,529.68 3,005,097.90
C	441,516.95	3,005,146.99	441,537.43 3,005,101.38



- NOTES:
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPES.
  2. A MAXIMUM OF FOUR (4), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.
  3. EXISTING STRUCTURE SHALL BE REMOVED AND REPLACED WITH CMP CULVERTS.

APPLICATION BY:  
COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

COASTAL PROTECTION AND  
RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU  
MARSH RESTORATION

WATER CONTROL  
STRUCTURE 6  
PLAN VIEW

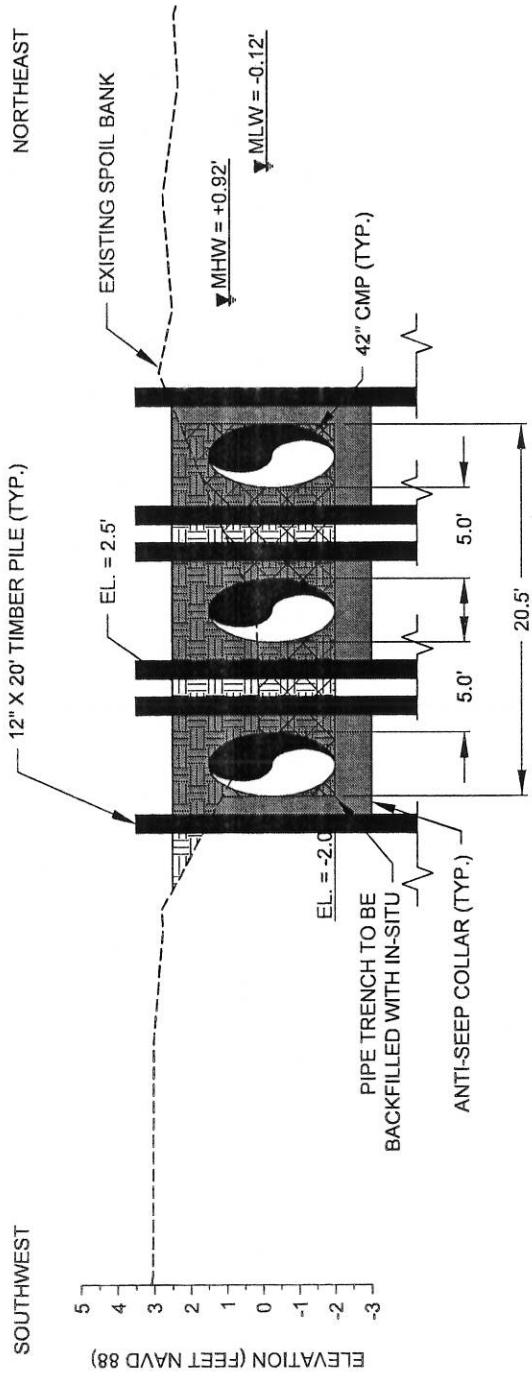
DRAWN BY: SHANE FAUST

DESIGNED BY: AMANDA TAYLOR, E.I., APPROVED BY: SHANNON HAYNES, P.E.

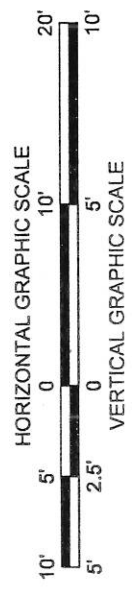
STATE PROJECT NUMBER: TV-63  
FEDERAL PROJECT NUMBER: TV-63

DATE: FEBRUARY 2016  
SHEET 27 OF 49



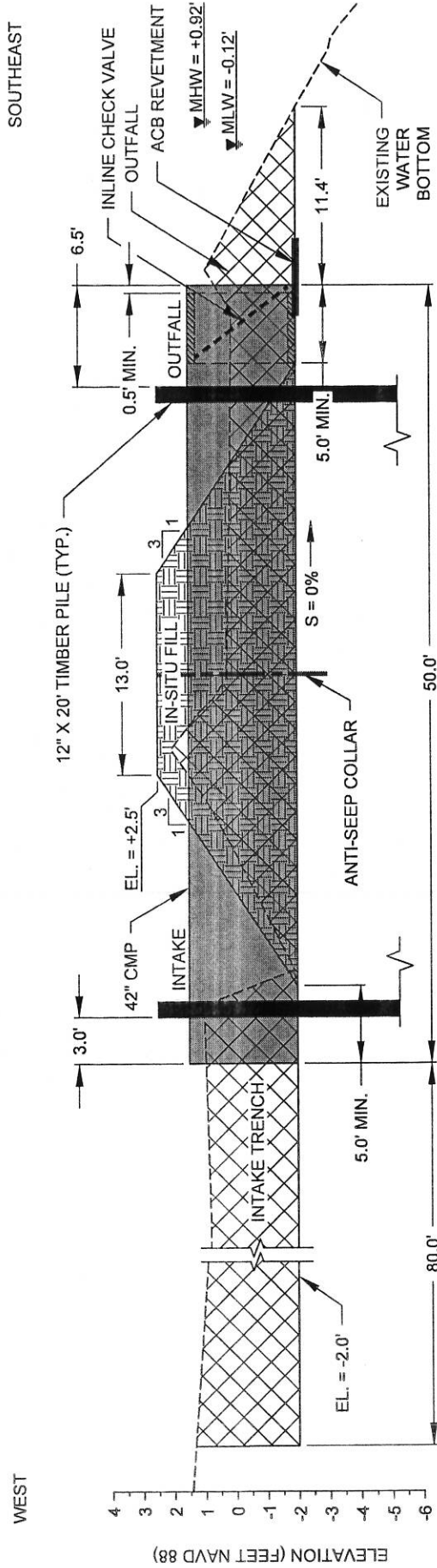


SECTION  
6A-6A1  
28/27  
TYPICAL



LEGEND	
	IN-SITU FILL
	EXISTING BOTTOM
	CULVERT

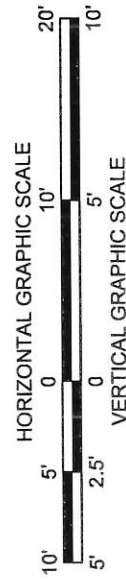
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 6 SECTION VIEW
			DATE: FEBRUARY 2016 SHEET 28 OF 49



6B-6B  
29/27

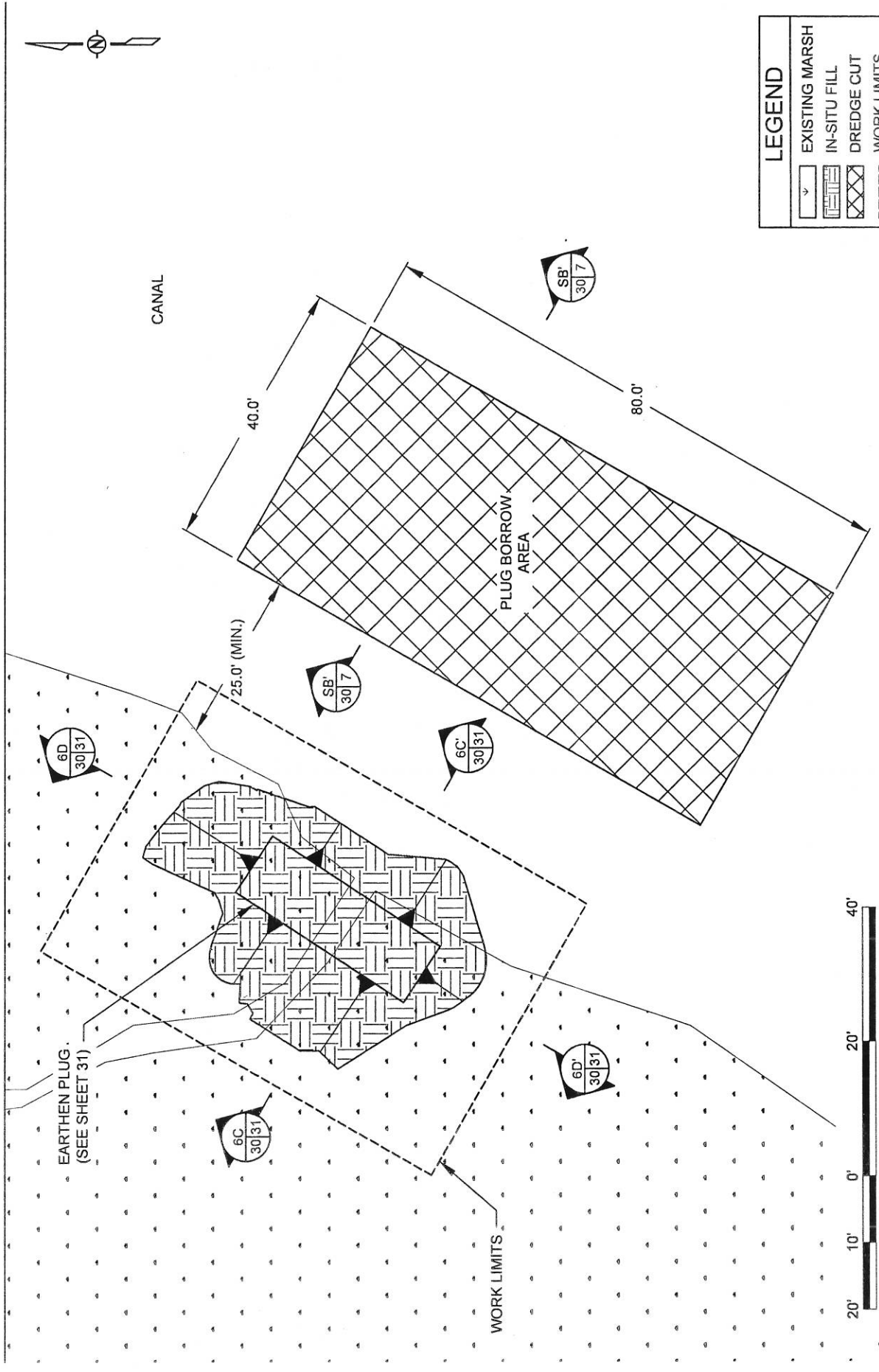
PROFILE  
TYPICAL SECTION

LEGEND	
	IN-SITU FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	EXISTING BOTTOM



NOTE:  
THE INLINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 6 PROFILE VIEW
DESIGNED BY: SHANE FAUST	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 29 OF 49



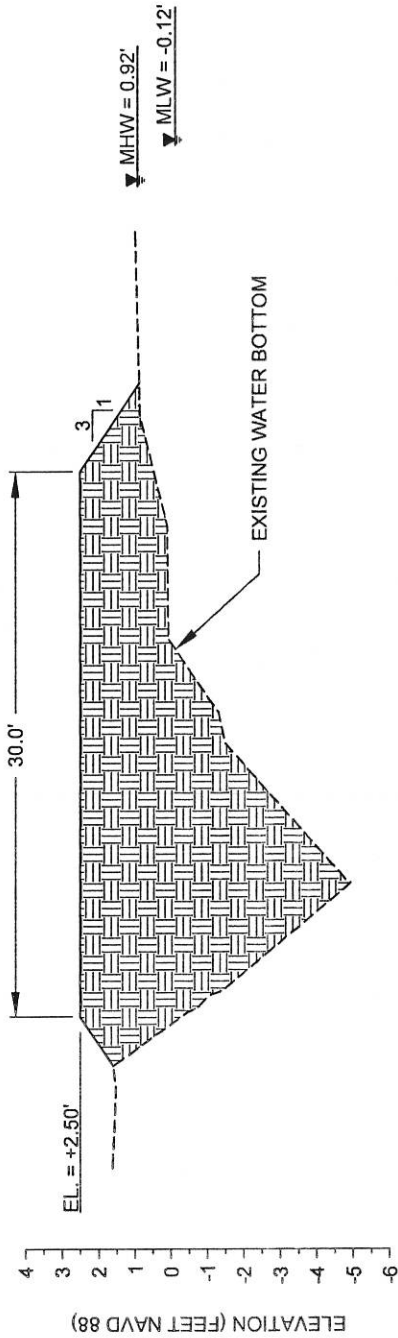
LEGEND	
	EXISTING MARSH
	IN-SITU FILL
	DREDGE CUT
	WORK LIMITS



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	EARTHEN PLUG PLAN VIEW
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.		STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
	APPROVED BY: SHANNON HAYNES, P.E.		FEDERAL PROJECT NUMBER: TV-63	SHEET 30 OF 49

NORTHWEST

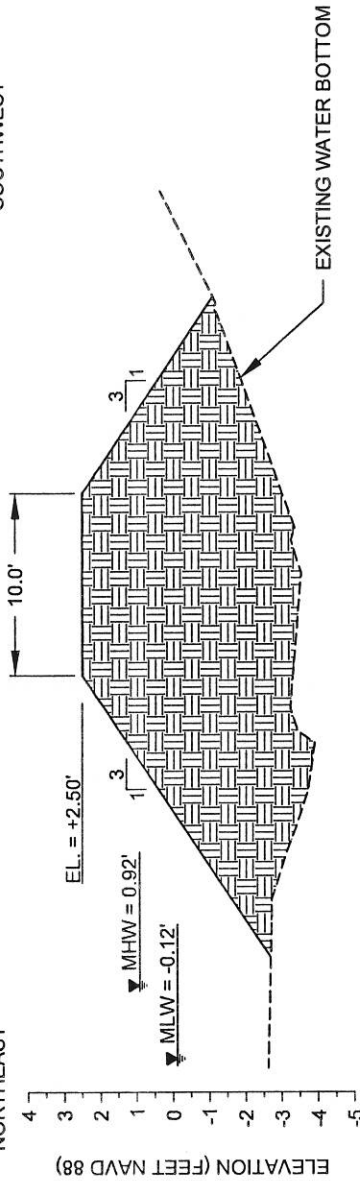
SOUTHEAST



**EARTHEN PLUG**  
TYPICAL SECTION

NORTHEAST

SOUTHWEST



**EARTHEN PLUG**  
PROFILE

HORIZONTAL GRAPHIC SCALE



LEGEND	
	IN-SITU FILL
	EXISTING BOTTOM

APPLICATION BY:  
COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

**COASTAL PROTECTION AND  
RESTORATION AUTHORITY**  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU  
MARSH RESTORATION

EARTHEN PLUG  
SECTION & PROFILE

DRAWN BY: SHANE FAUST

DESIGNED BY: AMANDA TAYLOR, E.I., APPROVED BY: SHANNON HAYNES, P.E.

STATE PROJECT NUMBER: TV-63

DATE: FEBRUARY 2016

FEDERAL PROJECT NUMBER: TV-63

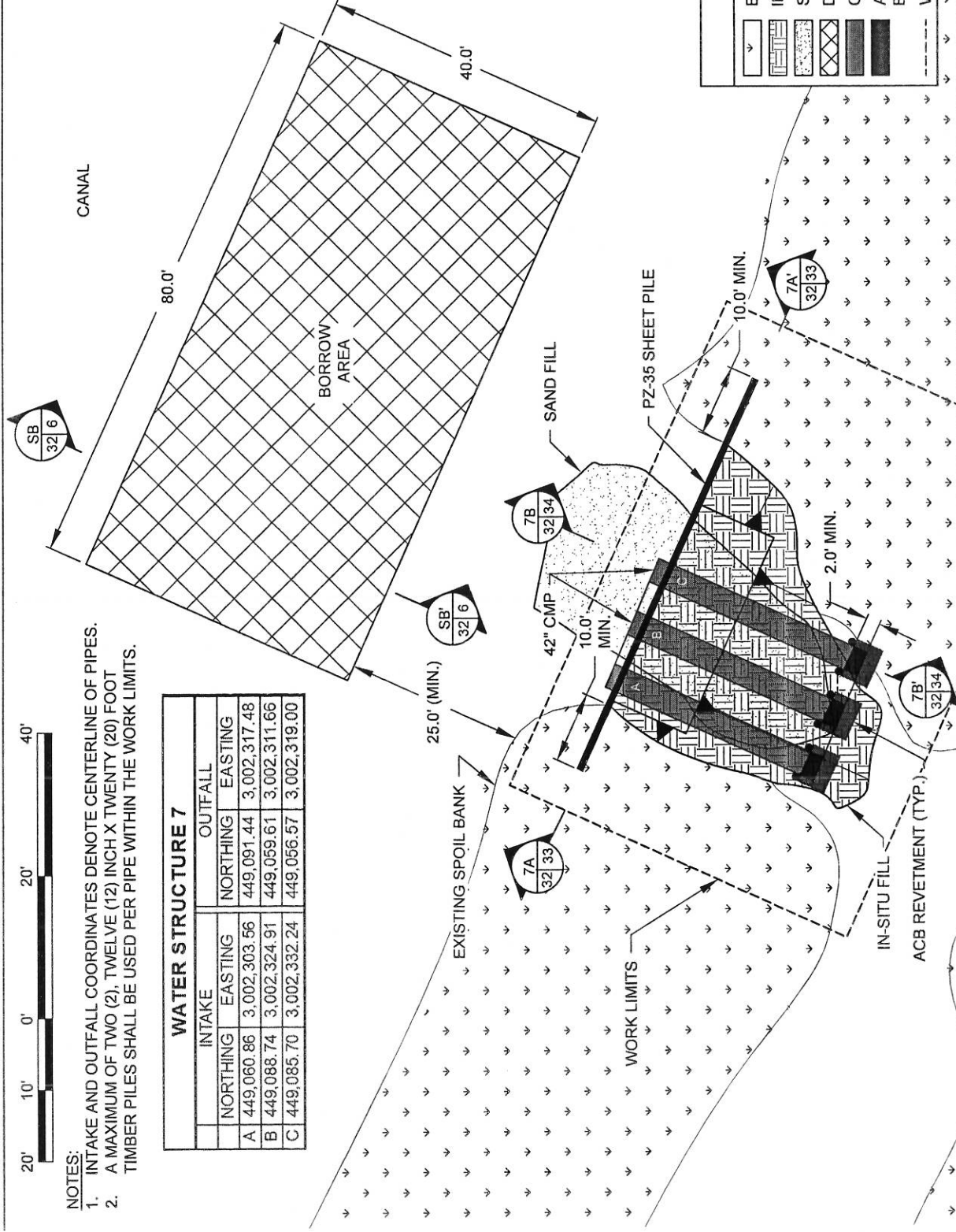
SHEET 31 OF 49



NOTES:

1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPES.
2. A MAXIMUM OF TWO (2), TWELVE (12) INCH X TWENTY (20) FOOT  
TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

WATER STRUCTURE 7				
	INTAKE		OUTFALL	
	NORTHING	EASTING	NORTHING	EASTING
A	449,060.86	3,002,303.56	449,091.44	3,002,317.48
B	449,088.74	3,002,324.91	449,059.61	3,002,311.66
C	449,085.70	3,002,332.24	449,056.57	3,002,319.00



LEGEND	
	EXISTING MARSH
	IN-SITU FILL
	SAND
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	WORK LIMITS

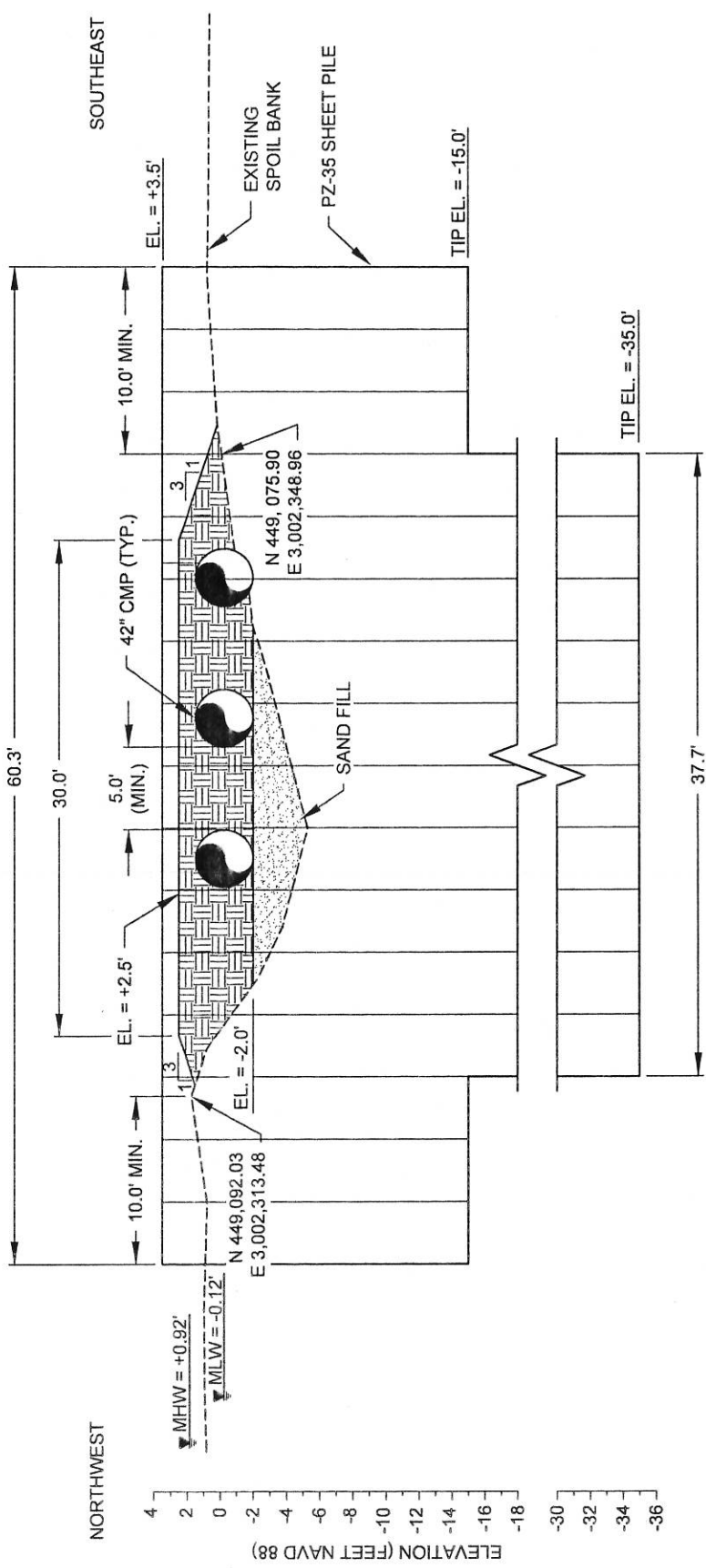
APPLICATION BY:  
COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

COASTAL PROTECTION AND  
RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

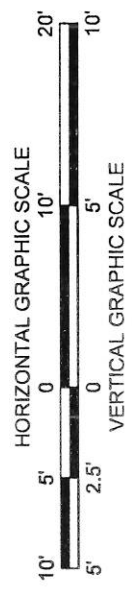
COLE'S BAYOU  
MARSH RESTORATION

WATER CONTROL  
STRUCTURE 7  
PLAN VIEW

DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
			FEDERAL PROJECT NUMBER: TV-63	SHEET 32 OF 49

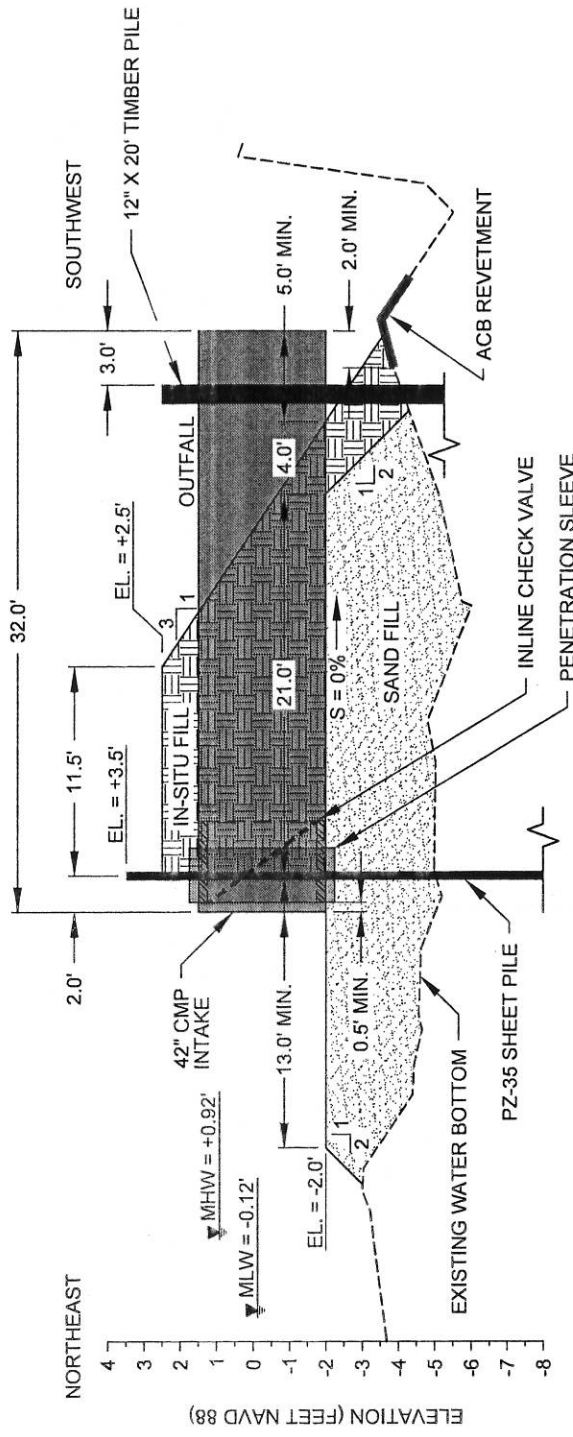


SECTION  
7A-7A  
33/32  
TYPICAL

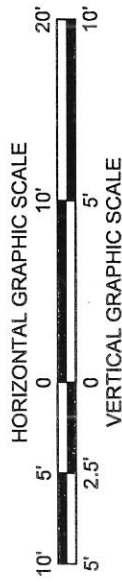


LEGEND	
	IN-SITU FILL
	SAND FILL
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 7 SECTION VIEW
	DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	APPROVED BY: SHANNON HAYNES, P.E.	DATE: FEBRUARY 2016 SHEET 33 OF 49



**PROFILE**  
TYPICAL SECTION



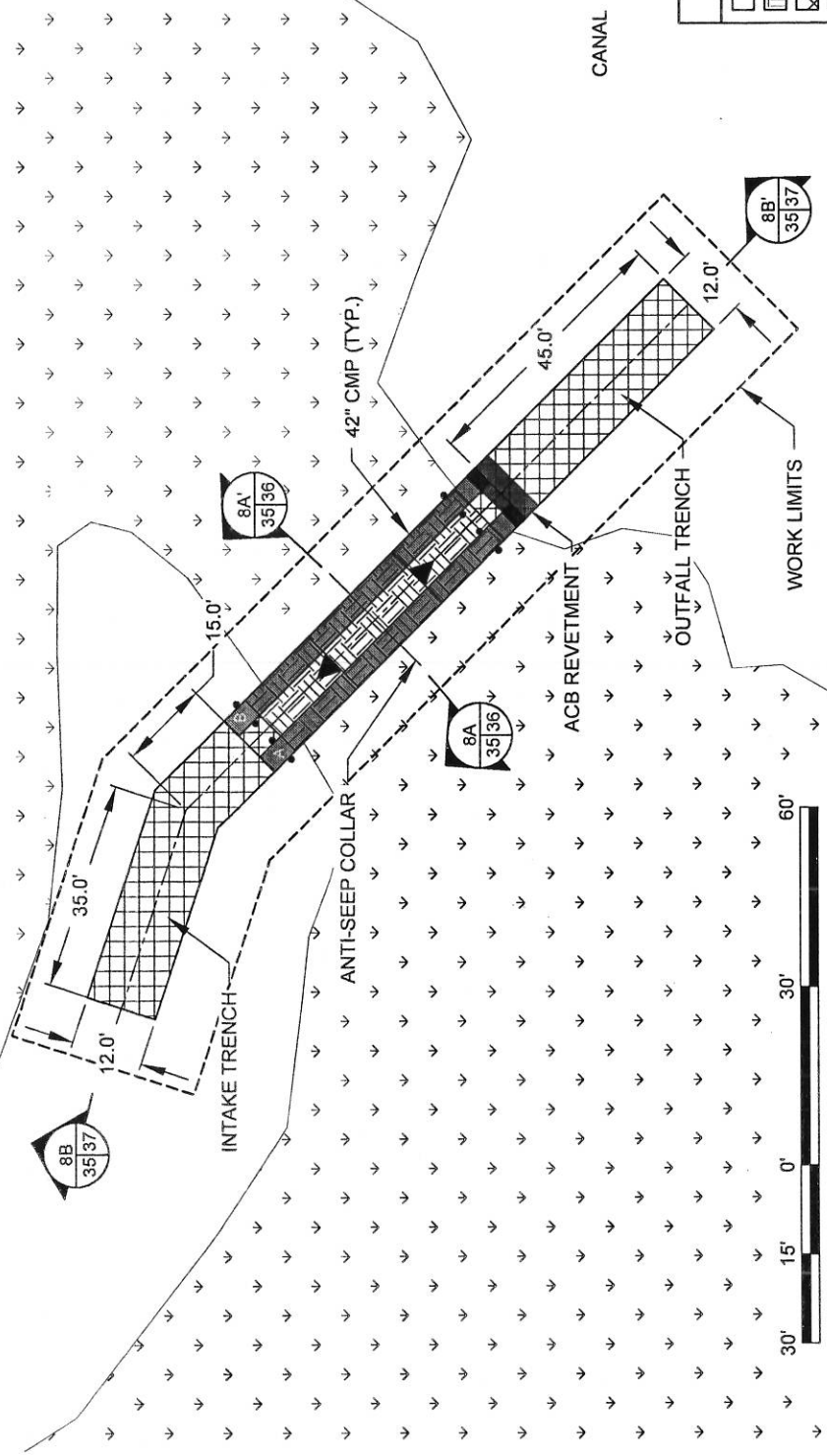
**NOTE:**  
THE INLINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

LEGEND	
[Pattern]	IN-SITU FILL
[Pattern]	SAND FILL
[Pattern]	DREDGE CUT
[Pattern]	CULVERT
[Pattern]	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
[Pattern]	EXISTING BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COLE'S BAYOU MARSH RESTORATION		WATER CONTROL STRUCTURE 7 PROFILE VIEW
	DESIGNED BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E. BATON ROUGE, LOUISIANA 70801	DATE: FEBRUARY 2016 SHEET 34 OF 49



WATER STRUCTURE 8			
INTAKE		OUTFALL	
NORTHING	EASTING	NORTHING	EASTING
A 449,498.18	2,997,433.20	449,498.18	2,997,441.70
B 449,438.18	2,997,433.20	449,438.18	2,997,441.70

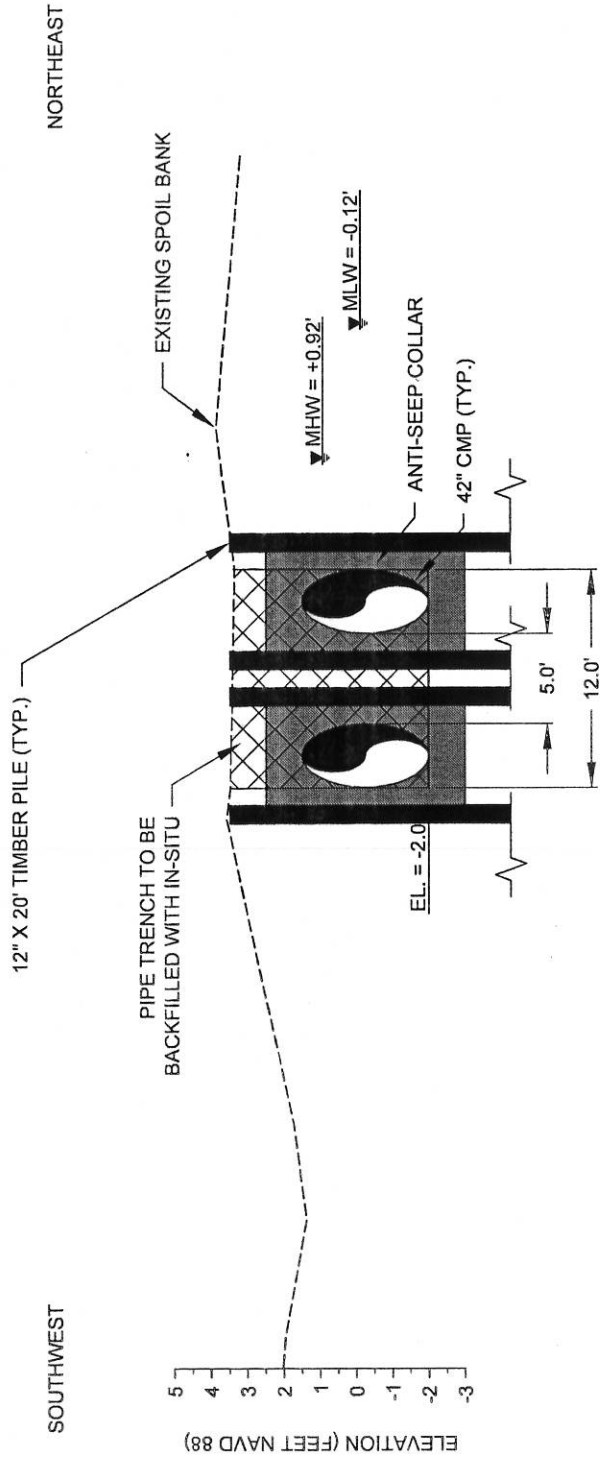


LEGEND	
[Symbol]	EXISTING MARSH
[Symbol]	IN-SITU FILL
[Symbol]	DREDGE CUT
[Symbol]	CULVERT
[Symbol]	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
[Symbol]	WORK LIMITS

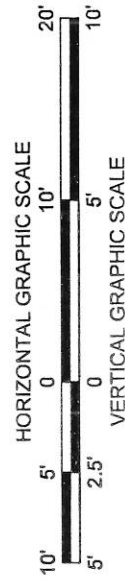
- NOTES:
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPES.
  2. A MAXIMUM OF FOUR (4), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 8 PLAN VIEW
	DESIGNED BY: AMANDA TAYLOR, E.I. DRAWN BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E. DATE: FEBRUARY 2016	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	SHEET 35 OF 49



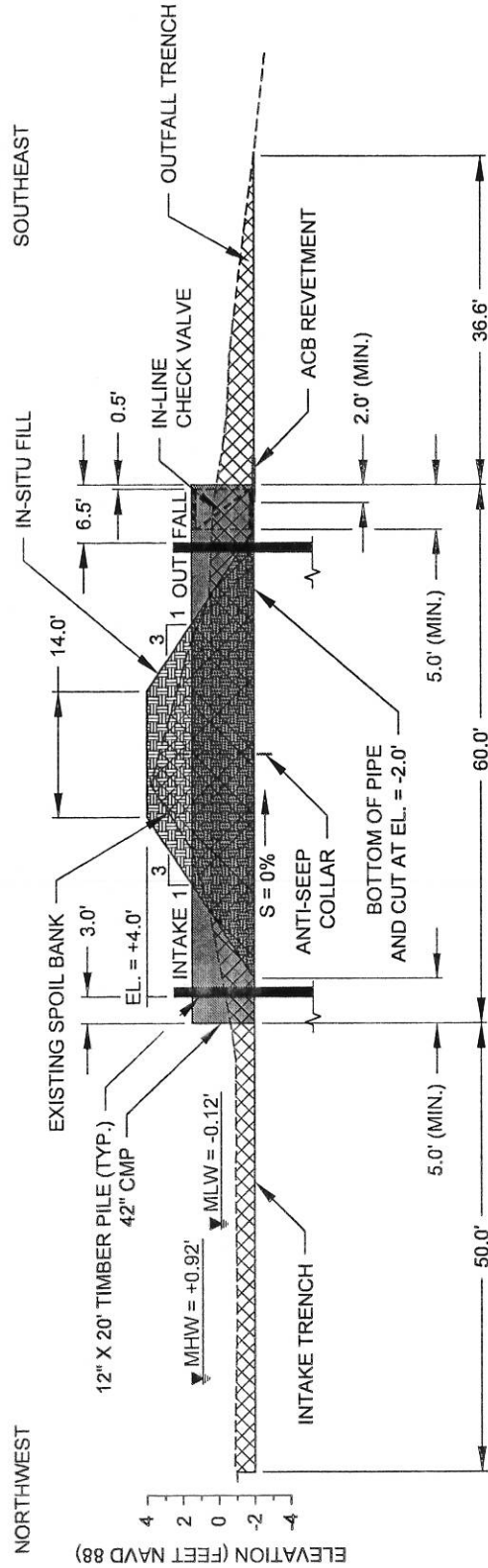


SECTION  
6A-8A  
36/35  
TYPICAL



LEGEND	
	DREDGE CUT
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 8 SECTION VIEW
	DESIGNED BY: AMANDA TAYLOR, E.I. APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016	SHEET 36 OF 49



88-88  
37/35  
PROFILE  
TYPICAL SECTION

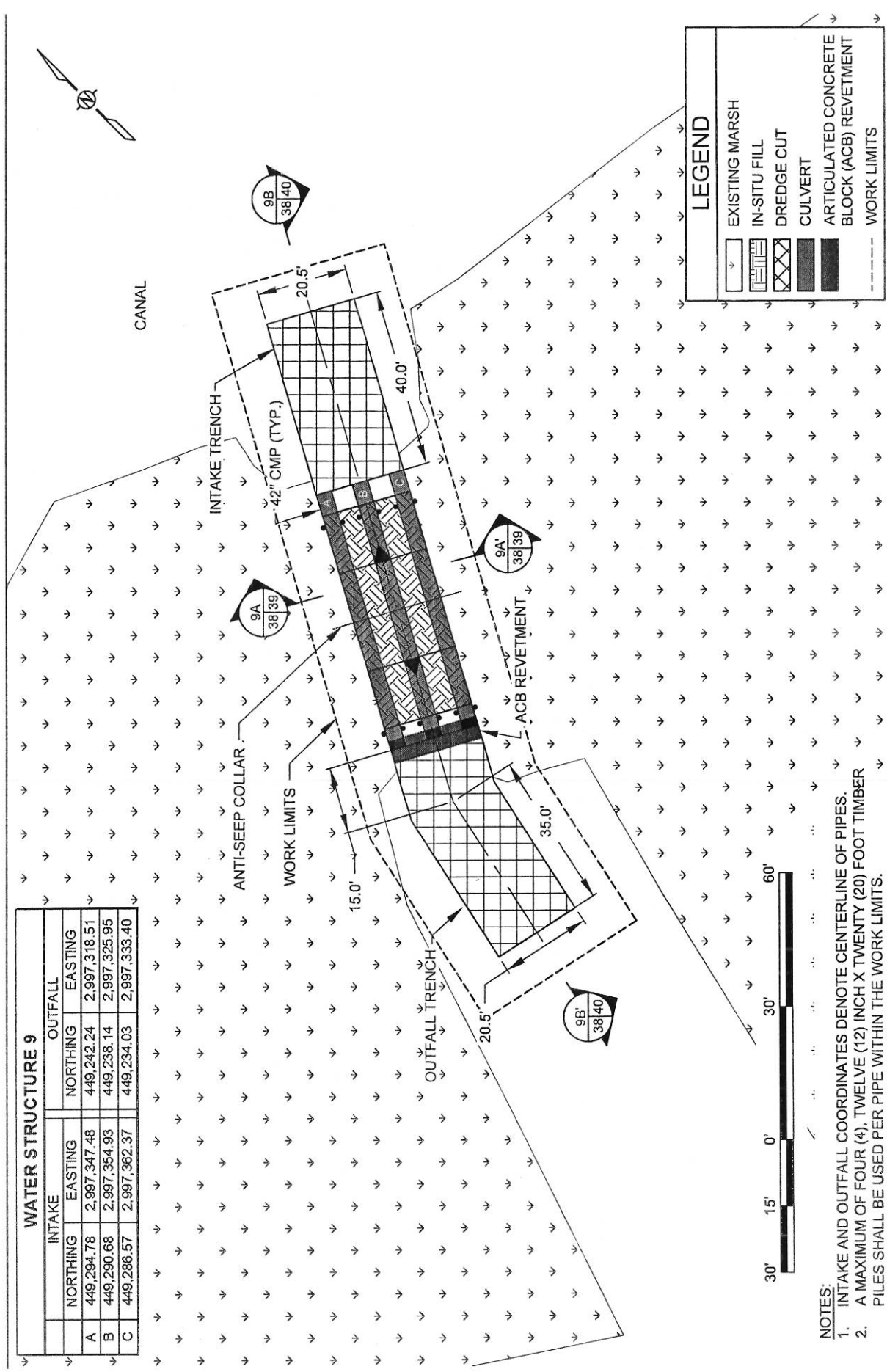


NOTE:  
THE IN-LINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6' FROM EDGE OF PIPE.

LEGEND	
	IN-SITU FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE
	BLOCK (ACB) REVETMENT
	EXISTING BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 8 PROFILE VIEW
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.		STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
	APPROVED BY: SHANNON HAYNES, P.E.		FEDERAL PROJECT NUMBER: TV-63	
				SHEET 37 OF 49

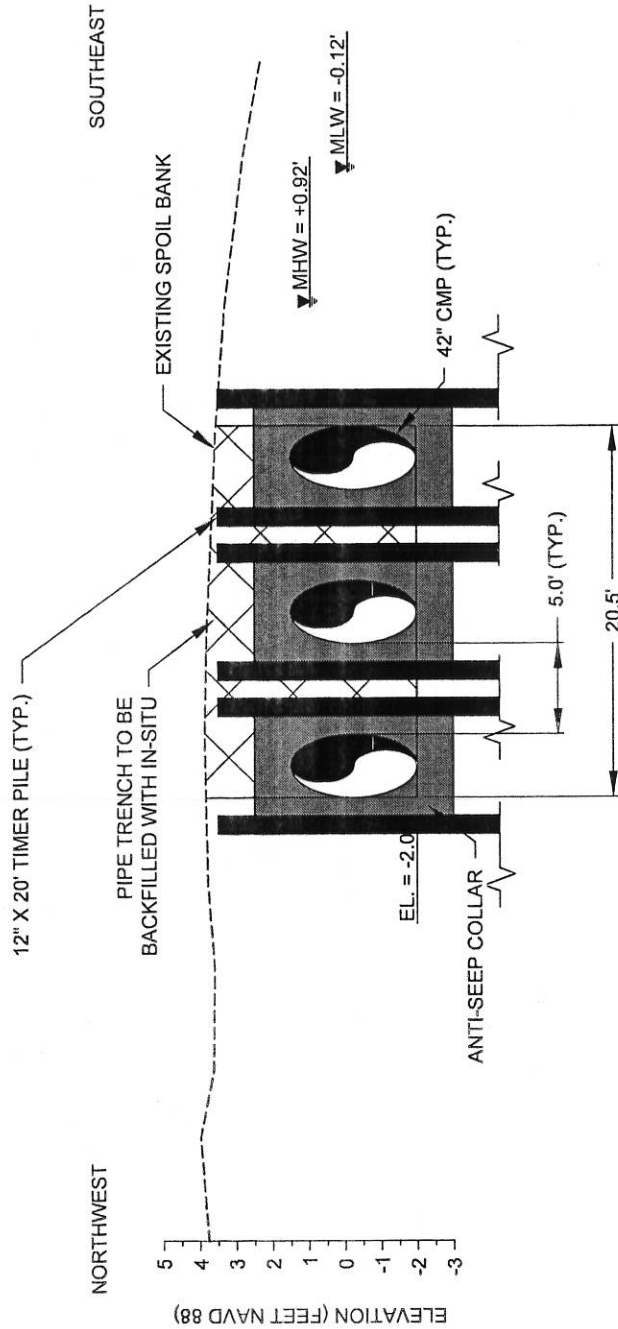
WATER STRUCTURE 9				
	INTAKE		OUTFALL	
	NORTHING	EASTING	NORTHING	EASTING
A	449,294.78	2,997,347.48	449,242.24	2,997,318.51
B	449,290.68	2,997,354.93	449,238.14	2,997,325.95
C	449,286.57	2,997,362.37	449,234.03	2,997,333.40



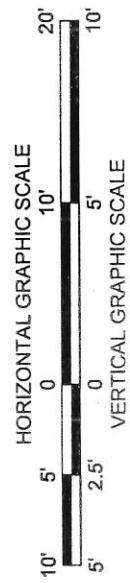
LEGEND	
[Symbol]	EXISTING MARSH
[Symbol]	IN-SITU FILL
[Symbol]	DREDGE CUT
[Symbol]	CULVERT
[Symbol]	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
[Symbol]	WORK LIMITS

- NOTES:
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPES.
  2. A MAXIMUM OF FOUR (4), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 9 PLAN VIEW
	DESIGNED BY: AMANDA TAYLOR, E.I. DRAWN BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 38 OF 49

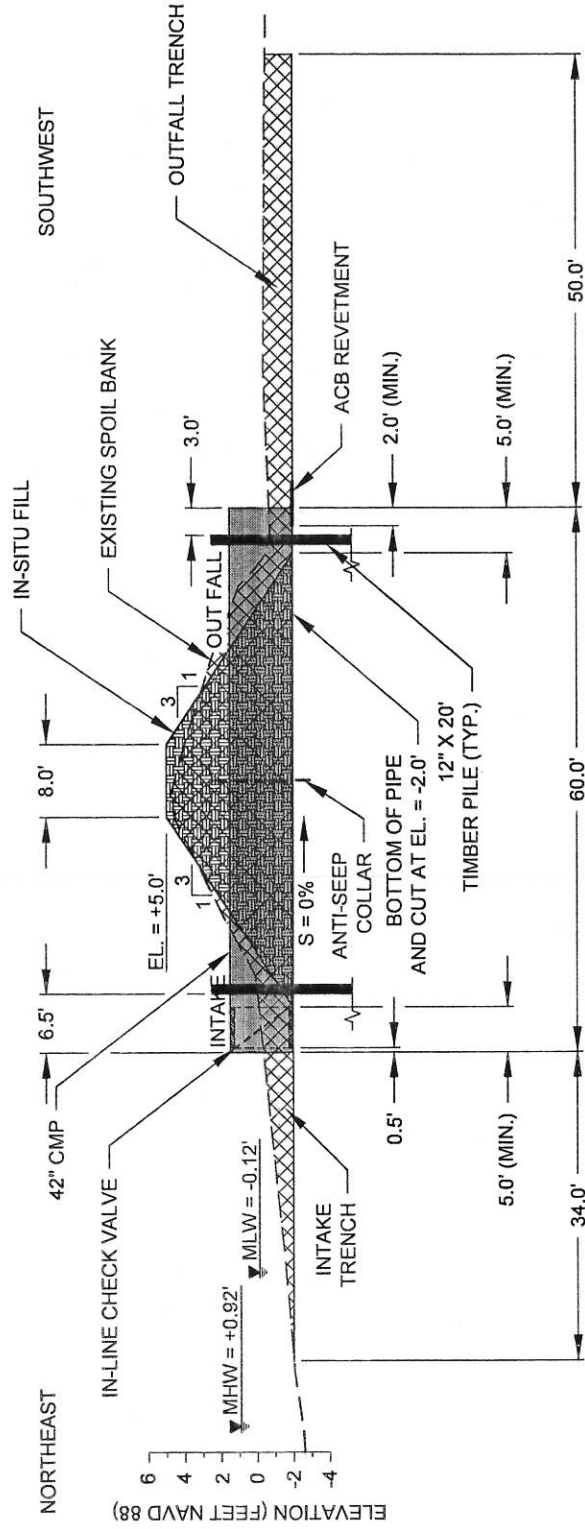


SECTION  
TYPICAL



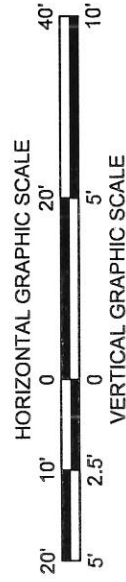
LEGEND	
	DREDGE CUT
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 9 SECTION VIEW
	DESIGNED BY: AMANDA TAYLOR, E.I. DRAWN BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 39 OF 49



**PROFILE**  
TYPICAL SECTION

LEGEND	
	IN-SITU FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	EXISTING BOTTOM



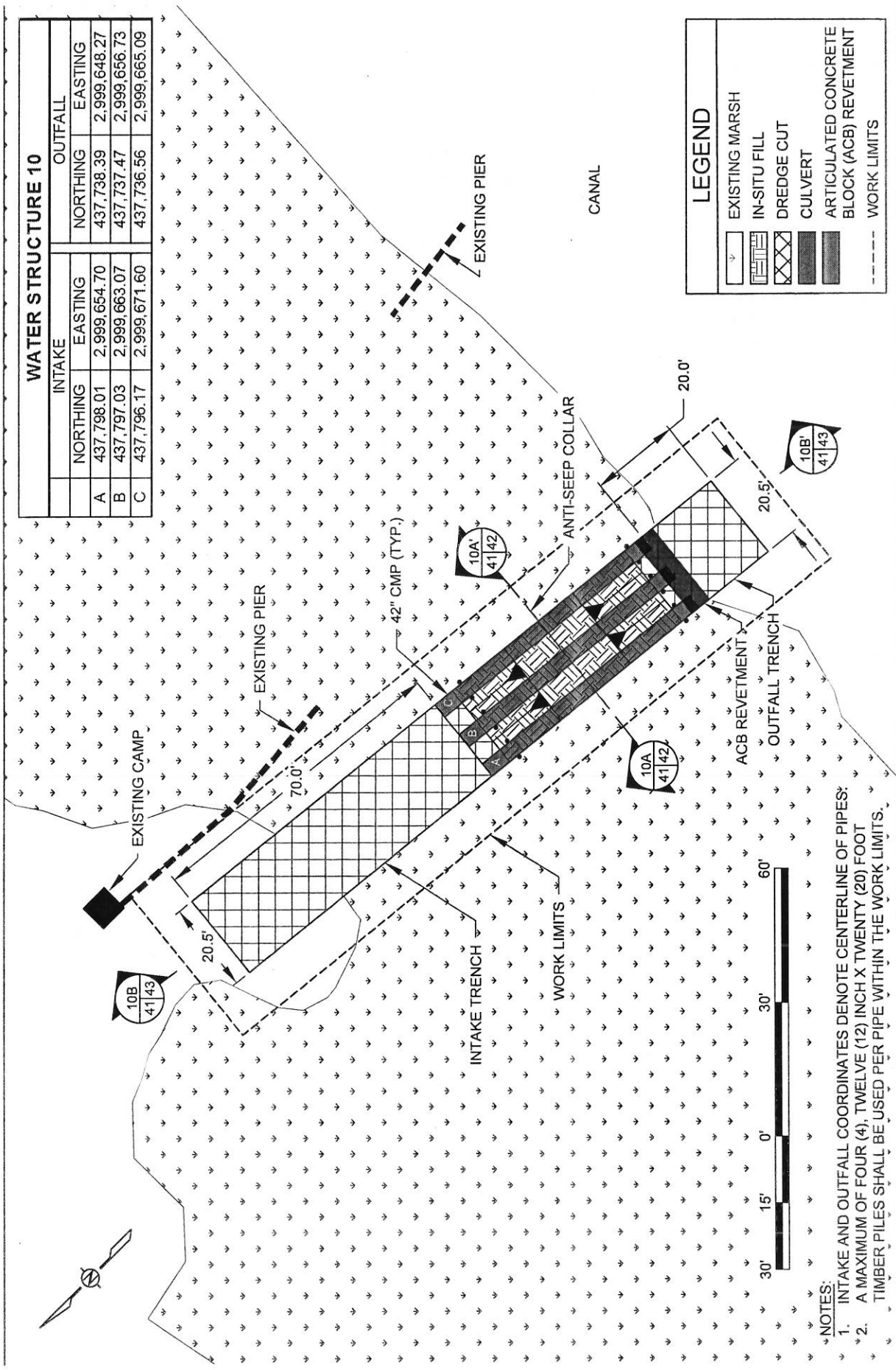
NOTE:  
THE IN-LINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 9 PROFILE VIEW
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.		STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
	APPROVED BY: SHANNON HAYNES, P.E.		FEDERAL PROJECT NUMBER: TV-63	SHEET 40 OF 49

# WATER STRUCTURE 10

	INTAKE		OUTFALL	
	NORTHING	EASTING	NORTHING	EASTING
A	437,798.01	2,999,654.70	437,738.39	2,999,648.27
B	437,797.03	2,999,663.07	437,737.47	2,999,656.73
C	437,796.17	2,999,671.60	437,736.56	2,999,665.09

LEGEND	
	EXISTING MARSH
	IN-SITU FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	WORK LIMITS



- NOTES:
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPES;
  2. A MAXIMUM OF FOUR (4), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

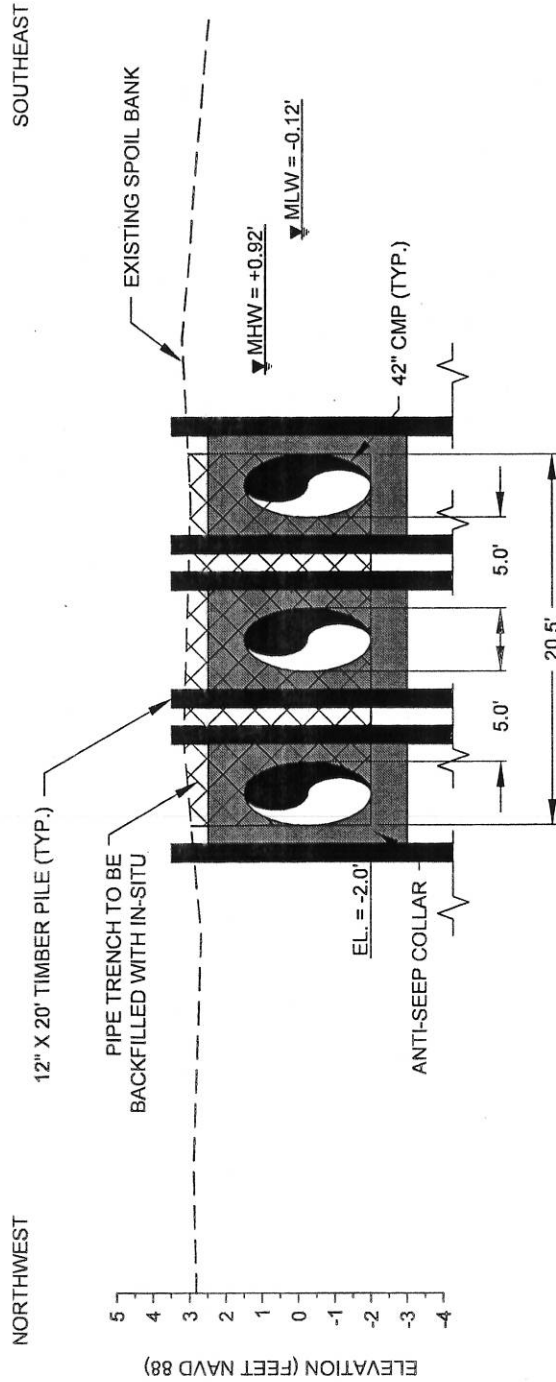
APPLICATION BY:  
COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

COASTAL PROTECTION AND  
RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

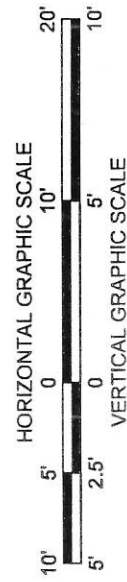
COLE'S BAYOU  
MARSH RESTORATION

WATER CONTROL  
STRUCTURE 10  
PLAN VIEW

DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
			FEDERAL PROJECT NUMBER: TV-63	SHEET 41 OF 49



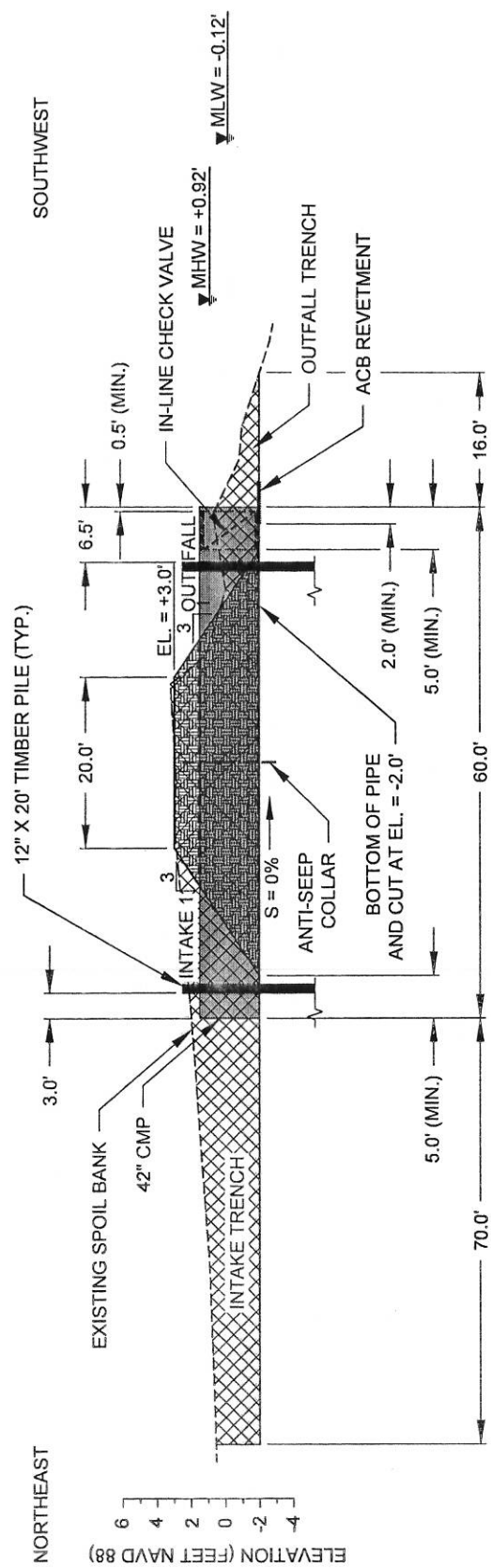
SECTION  
10A-10A  
42 41  
TYPICAL



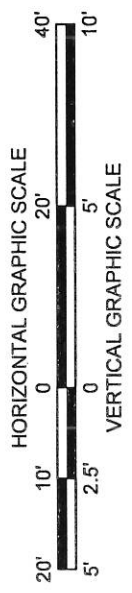
LEGEND	
	DREDGE CUT
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 10 SECTION VIEW
	DESIGNED BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
DRAWN BY: SHANE FAUST		FEDERAL PROJECT NUMBER: TV-63		SHEET 42 OF 49





**PROFILE**  
TYPICAL SECTION



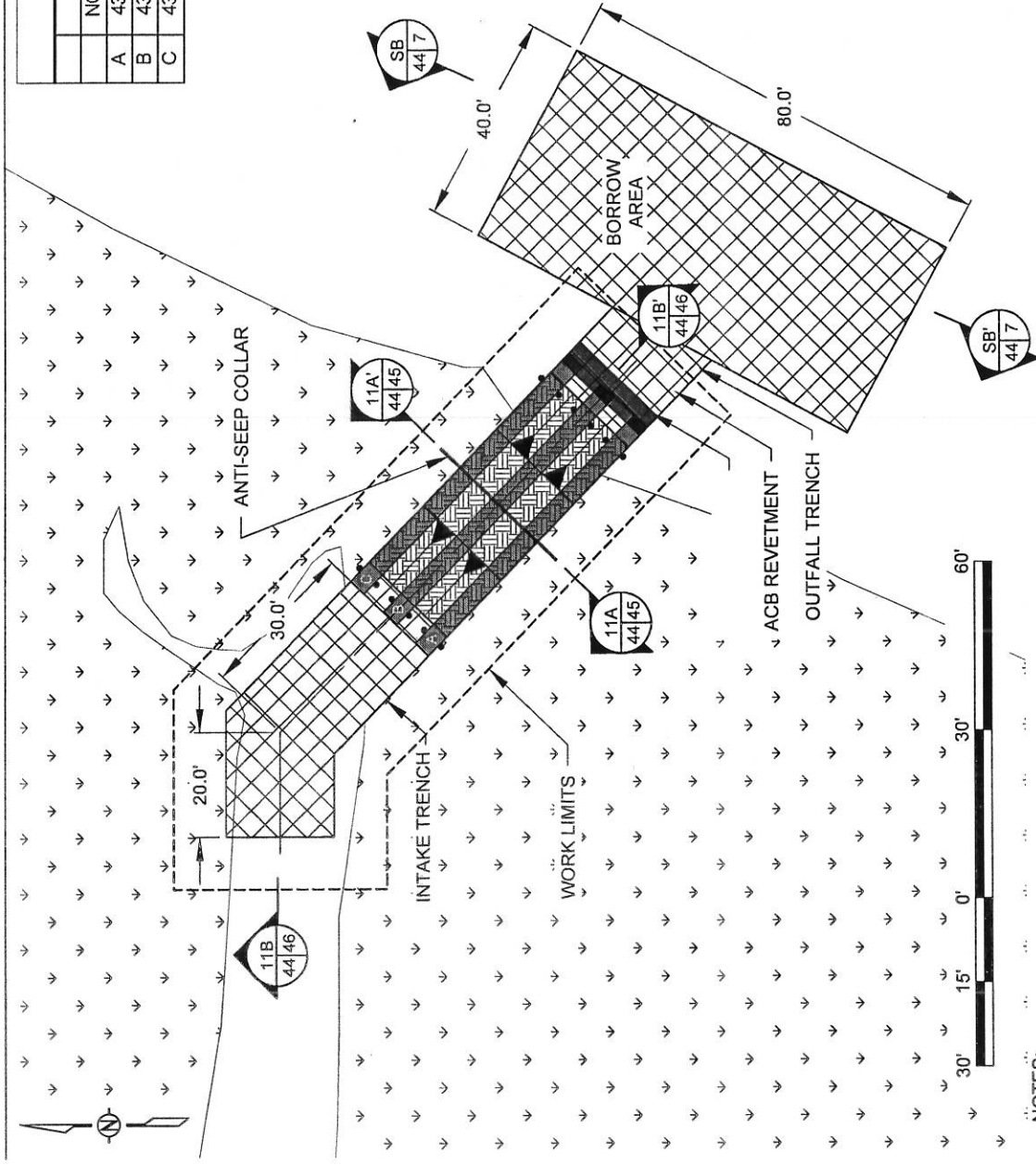
**NOTE:**  
THE IN-LINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

LEGEND	
	IN-SITU FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	EXISTING BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION  STATE PROJECT NUMBER: TV-63  FEDERAL PROJECT NUMBER: TV-63	WATER CONTROL STRUCTURE 10 PROFILE VIEW  DATE: FEBRUARY 2016  SHEET 43 OF 49



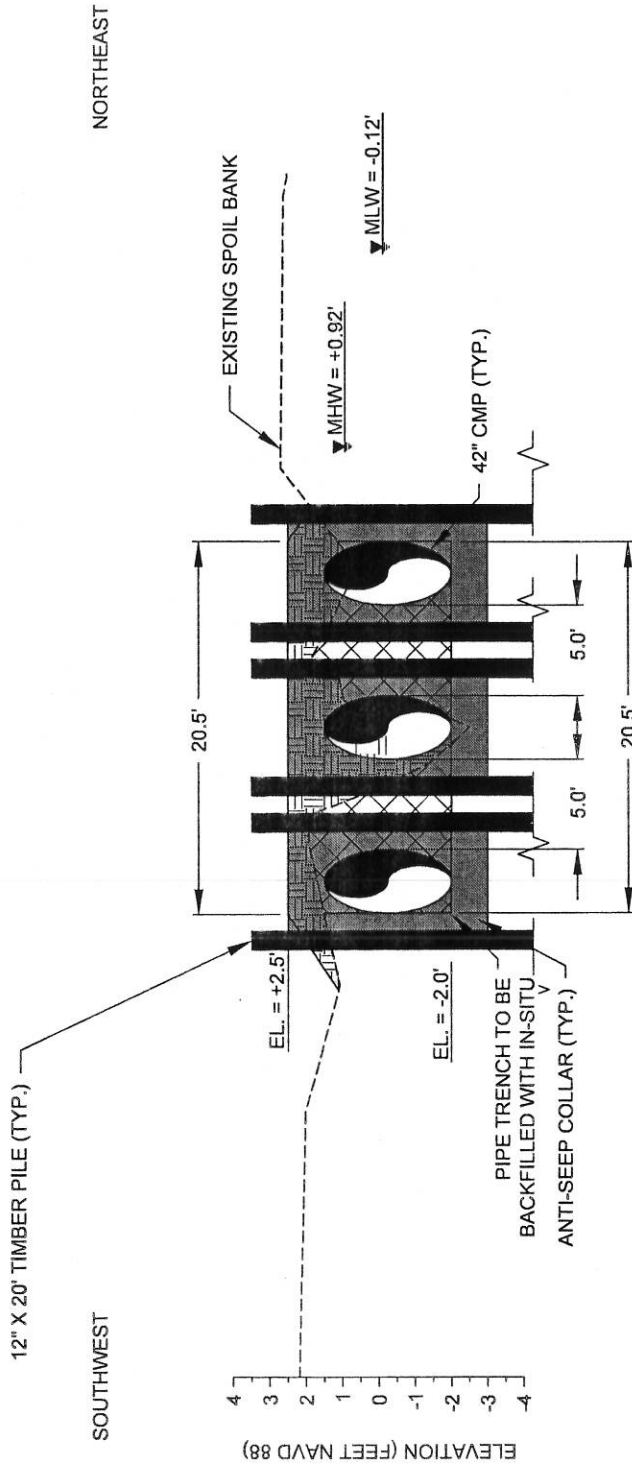
WATER STRUCTURE 11					
		INTAKE		OUTFALL	
		NORTHING	EASTING	NORTHING	EASTING
A		439,133.87	3,003,867.90	439,092.21	3,003,911.08
B		439,140.00	3,003,873.81	439,098.37	3,003,917.01
C		439,146.12	3,003,879.71	439,104.46	3,003,922.89



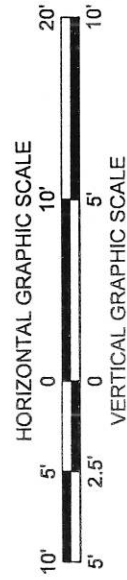
LEGEND	
[Symbol]	EXISTING MARSH
[Symbol]	IN-SITU FILL
[Symbol]	DREDGE CUT
[Symbol]	CULVERT
[Symbol]	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
[Symbol]	WORK LIMITS

- NOTES:
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPES.
  2. A MAXIMUM OF FOUR (4), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 11 PLAN VIEW
DRAWN BY: SHANE FAUST	DESIGNED BY: AMANDA TAYLOR, E.I.	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016
			FEDERAL PROJECT NUMBER: TV-63	SHEET 44 OF 49

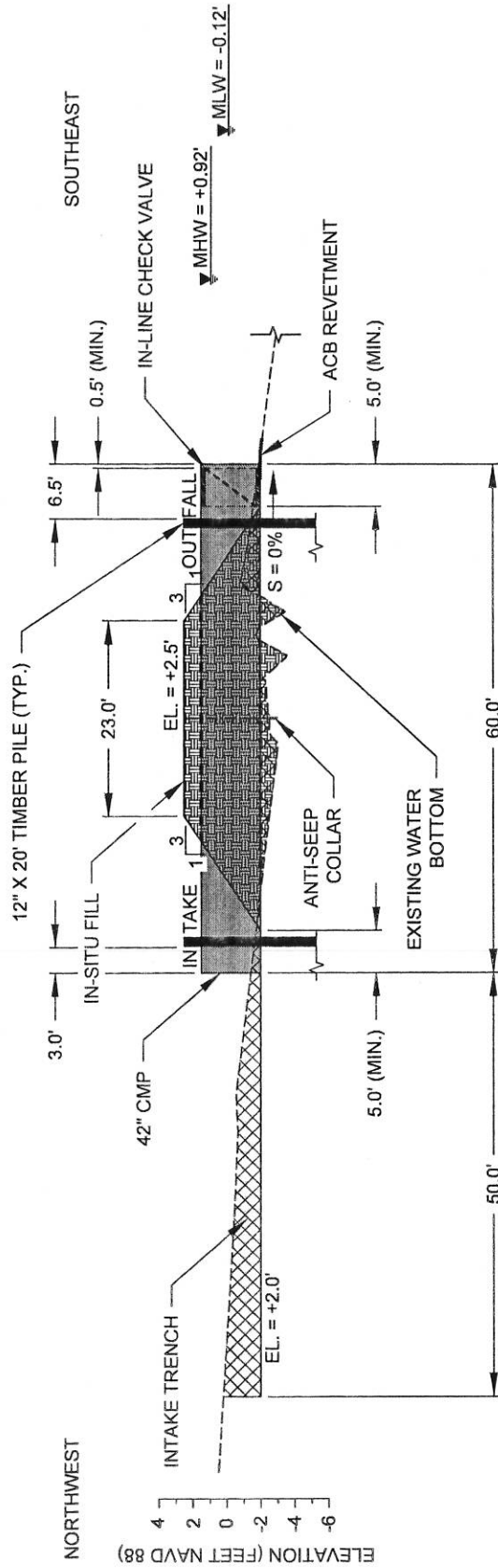


SECTION 11A-11A  
45 44  
TYPICAL



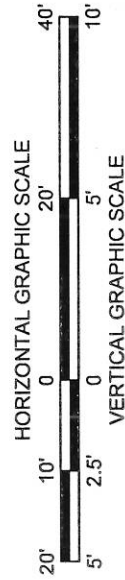
LEGEND	
	DREDGE CUT
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 11 SECTION VIEW
	DESIGNED BY: AMANDA TAYLOR, E.I. DRAWN BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 45 OF 49



**PROFILE**  
TYPICAL SECTION

LEGEND	
	IN-SITU FILL
	DREDGE CUT
	CULVERT
	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
	EXISTING BOTTOM



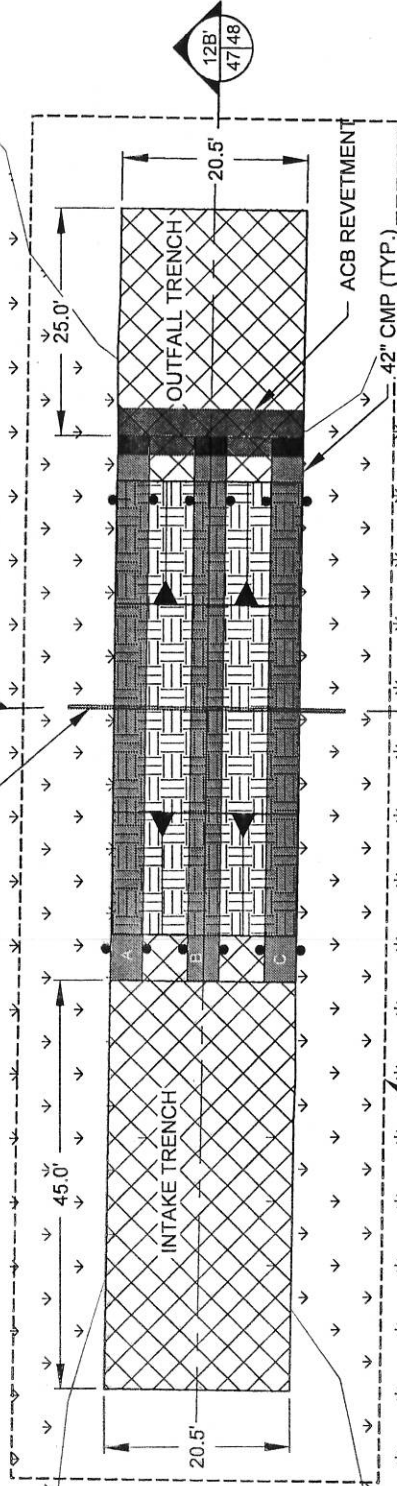
NOTE:  
THE INLINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6" FROM EDGE OF PIPE.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COLE'S BAYOU MARSH RESTORATION		WATER CONTROL STRUCTURE 11 PROFILE VIEW
	DESIGNED BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E. STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	
COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		DATE: FEBRUARY 2016	SHEET 46 OF 49

# WATER STRUCTURE 12

	INTAKE		OUTFALL	
	NORTHING	EASTING	NORTHING	EASTING
A	437,666.09	2,998,107.68	437,665.09	2,998,167.67
B	437,657.59	2,998,107.55	437,656.59	2,998,167.54
C	437,649.08	2,998,107.41	437,648.08	2,998,167.39

ANTI-SEEP COLLAR



## LEGEND

[Symbol]	EXISTING MARSH
[Symbol]	IN-SITU FILL
[Symbol]	DREDGE CUT
[Symbol]	CULVERT
[Symbol]	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
[Symbol]	WORK LIMITS

- NOTES:
1. INTAKE AND OUTFALL COORDINATES DENOTE CENTERLINE OF PIPES.
  2. A MAXIMUM OF FOUR (4), TWELVE (12) INCH X TWENTY (20) FOOT TIMBER PILES SHALL BE USED PER PIPE WITHIN THE WORK LIMITS.

APPLICATION BY:  
COASTAL PROTECTION & RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LA 70801

COASTAL PROTECTION AND  
RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

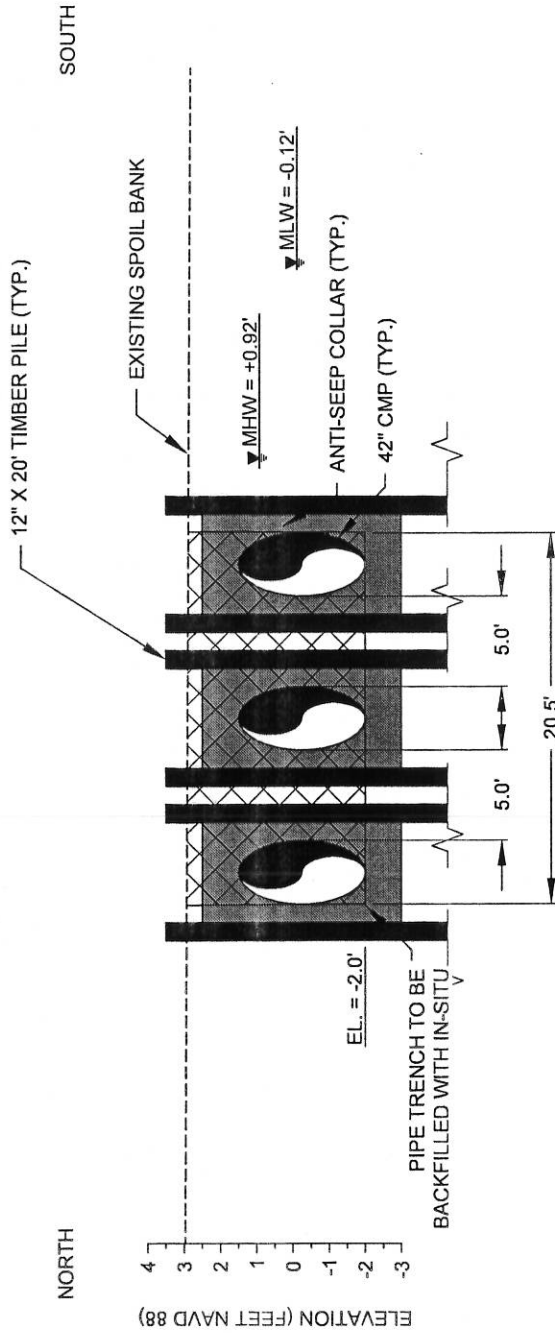
COLE'S BAYOU  
MARSH RESTORATION

WATER CONTROL  
STRUCTURE 12  
PLAN VIEW

DESIGNED BY: SHANE FAUST  
DRAWN BY: SHANE FAUST

STATE PROJECT NUMBER: TV-63  
FEDERAL PROJECT NUMBER: TV-63

APPROVED BY: SHANNON HAYNES, P.E.  
DATE: FEBRUARY 2016  
SHEET 47 OF 49

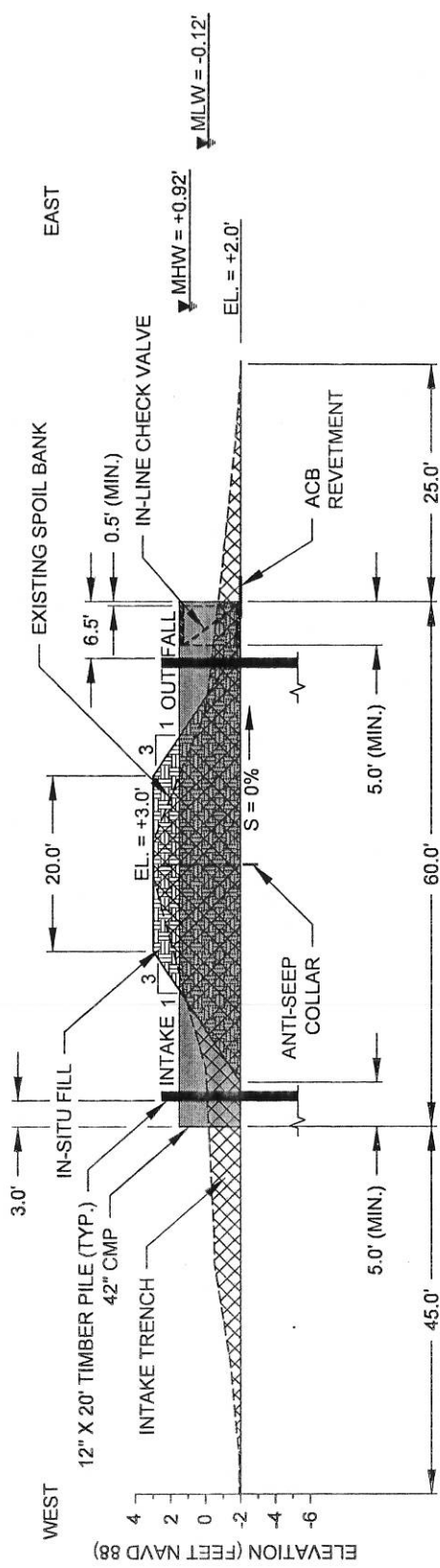


SECTION  
12A-12A  
48/47  
TYPICAL



LEGEND	
	DREDGE CUT
	EXISTING BOTTOM
	CULVERT

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 12 SECTION VIEW
	DESIGNED BY: SHANE FAUST	APPROVED BY: SHANNON HAYNES, P.E.	STATE PROJECT NUMBER: TV-63 FEDERAL PROJECT NUMBER: TV-63	DATE: FEBRUARY 2016 SHEET 48 OF 49



**PROFILE**  
TYPICAL SECTION



NOTE:  
THE INLINE CHECK VALVE SHALL BE PLACED INSIDE  
THE CULVERT A MINIMUM OF 6' FROM EDGE OF PIPE.

LEGEND	
[Pattern]	IN-SITU FILL
[Pattern]	DREDGE CUT
[Pattern]	CULVERT
[Pattern]	ARTICULATED CONCRETE BLOCK (ACB) REVETMENT
[Pattern]	EXISTING BOTTOM

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LA 70801	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	COLE'S BAYOU MARSH RESTORATION	WATER CONTROL STRUCTURE 12 PROFILE VIEW
			DATE: FEBRUARY 2016 SHEET 49 OF 49

## **STANDARD MANATEE CONDITIONS FOR IN-WATER ACTIVITIES**

During in-water work in areas that potentially support manatees, all personnel associated with the project shall be instructed and aware of the potential presence of manatees, manatee speed zones, and the need to avoid collisions with, and injury to, manatee. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. Additionally, personnel shall be instructed not to attempt to feed or otherwise interact with the animal.

All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). To minimize potential impacts to manatees in areas of their potential presence, the permittee shall insure the following are adhered to:

- All work, equipment, and vessel operation shall cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in-water work can resume under careful observation for manatee(s).
- If a manatee(s) is sighted in or near the project area, all vessels associated with the project shall operate at "no wake/idle" speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels shall follow routes of deep water whenever possible.
- If used, siltation or turbidity barriers shall be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.
- Temporary signs concerning manatees shall be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½" X 11" reading language similar to the following: "CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT". A second temporary sign measuring 8½" X 11" shall be posted at a location prominently visible to all personnel engaged in water-related activities and shall read language similar to the following: "CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION".
- Collisions with, injury to, or sightings of manatees shall be immediately reported to the U.S. Fish and Wildlife Service's, Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.



1. Activities authorized under this general permit shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single and complete project shall be treated together as constituting one single and complete project. All planned phases of multi-phased projects shall be treated together as constituting one single and complete project. This general permit shall not be used for any activity that is part of an overall project for which an individual permit is required.
2. No activity is authorized under this general permit which may adversely affect significant cultural resources listed or eligible for listing in the National Register of Historic Places until the requirements for Section 106 of the National Historic Preservation Act are met. Upon discovery of the presence of previously unknown historic and/or prehistoric cultural resources, all work must cease and the permittee must notify the State Historic Preservation Office and the Corps of Engineers. The authorization is suspended until it is determined whether or not the activity will have an adverse effect on cultural resources. The authorization may be reactivated or modified through specific conditions if necessary, if it is determined that the activity will have no adverse effect on cultural resources. The CEMVN-PGP authorization will be revoked if it is determined that cultural resources would be adversely affected, and an individual permit may be necessary.
3. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein. The permittee will, at his or her expense, install and maintain any safety lights, signals, and signs prescribed by the United States Coast Guard, through regulations or otherwise, on authorized facilities or on equipment used in performing work under the authorization.
4. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the water body, including those species which normally migrate through the area, unless the activity's primary purpose is to block or impound water.
5. If the proposed activity involves the installation of aerial transmission lines, submerged cable, or submerged pipelines across navigable waters of the United States the following is applicable:

The National Ocean Service (NOS) has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activity authorized by this permit. Your notification of completion must include a drawing which certifies the location and configuration of the completed activity (a certified permit drawing may be used). Notification to NOS will be sent to the following address: National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Springs, Maryland 20910-3282.
6. For pipelines under an anchorage or a designated fairway in the Gulf of Mexico the following is applicable: The NOS has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activity authorized by this permit. Within 30 days of completion of the pipeline, 'as built' drawings certified by a professional engineer registered in Louisiana or by a registered surveyor shall be furnished to this office, the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, and to the Director, National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Springs, Maryland 20910-3282. The plans must include the location, configuration and actual burial depth of the completed pipeline project.



7. If the proposed project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.) in the waterway, you are advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of your permit approval and drawings should be mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, about 1 month before you plan to start work. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2107.

8. All activities authorized herein shall, if they involve, during their construction or operation, any discharge of pollutants into waters of the United States, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards and management practices established pursuant to the Clean Water Act (PL 92-500:86 Stat 816), or pursuant to applicable state and local laws.

9. Substantive changes to the Louisiana Coastal Resources Program may require immediate suspension and revocation of this permit in accordance with 33 CFR 325.7.

10. Irrespective of whether a project meets the other conditions of this permit, the Corps of Engineers retains discretionary authority to require an individual Department of the Army permit when circumstances of the proposal warrant this requirement.

11. Any individual authorization granted under this permit may be modified, suspended, or revoked in whole or in part if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest.

12. The Corps of Engineers may suspend, modify, or revoke this general permit if it is found in the public interest to do so.

13. Activities proposed for authorization under the PGP must comply with all other necessary federal, state, and/or local permits, licenses, or approvals. Failure to do so would result in a violation of the terms and conditions of CEMVN-PGP.

14. The permittee shall permit the District Commander or his authorized representative(s) or designee(s) to make periodic inspections of the project site(s) and disposal site(s) if different from the project site(s) at any time deemed necessary in order to assure that the activity being performed under authority of this permit is in accordance with the terms and conditions prescribed herein.

15. This general permit does not convey any property rights, either in real estate or material, or any exclusive privileges; and it does not authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations nor does it obviate the requirements to obtain state or local assent required by law for the activity authorized herein.

16. In issuing authorizations under this permit, the federal government will rely upon information and data supplied by the applicant. If, subsequent to the issuance of an authorization, such information and data prove to be false, incomplete, or inaccurate, the authorization may be modified, suspended, or revoked, in whole or in part.

17. For activities resulting in sewage generation at the project site, such sewage shall be processed through a municipal sewage treatment system or, in areas where tie-in to a municipal system is not practical, the on-site sewerage system must be approved by the local parish sanitarian before construction.

18. Any modification, suspension, or revocation of CEMVN-PGP, or any individual authorization granted under this permit, will not be the basis for any claim for damages against the United States.

19. Additional conditions deemed necessary to protect the public interest may be added to the general permit by the District Commander at any time. If additional conditions are added, the public will be advised by public notice. Individual authorizations under CEMVN-PGP may include special conditions deemed necessary to ensure minimal impact and compliance with CEMVN-PGP.

20. CEMVN-PGP is subject to periodic formal review by CEMVN and OCM in coordination with the Environmental Protection Agency, US Fish and Wildlife Service, the National Marine Fisheries Service, and the Louisiana Department of Wildlife and Fisheries. Comments from reviewing agencies will be considered in determination as to whether modifications to the general permit are needed. Should the District Commander make a determination not to incorporate a change proposed by a reviewing agency, after normal negotiations between the respective agencies, the District Commander will explain in writing to the reviewing agency the basis and rationale for his decision.

21. CEMVN retains discretion to review CEMVN-PGP, its terms, conditions, and processing procedures, and decide whether to modify, reissue, or revoke the permit. If CEMVN-PGP is not modified or reissued within 5 years of its effective date, it automatically expires and becomes null and void.

22. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

23. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party as described in Special Condition 26 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

24. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

25. If you sell the property associated with this permit, you must provide this office with a copy of the permit and a letter noting your agreement to transfer the permit to the new owner and the new owner's agreement to accept the permit and abide by all conditions of the permit. This letter must be signed by both parties.

26. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.

27. Many local governing bodies have instituted laws and/or ordinances in order to regulate dredge and/or fill activities in floodplains to assure maintenance of floodwater storage capacity and avoid disruption of drainage patterns that may affect surrounding properties. Your project involves dredging and/or placement of fill; therefore, you must contact the local municipal and/or parish governing body regarding potential impacts to floodplains and compliance of your proposed activities with local floodplain ordinances, regulations or permits.

28. In issuing authorizations under this permit, the federal government does not assume any liability for: damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest; damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit, and; design or construction deficiencies associated with the permitted work.



**LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES**

**FILL MATERIAL LICENSE**

**LICENSE NO: WLF201729**



*In consideration of a royalty paid to the Department by the applicant, this license for the removal of fill material from water bottoms of the State of Louisiana is issued to:*

*Licensee Name and Address: CPRA/Andrew Beall  
P.O. Box 44027  
Baton Rouge, LA 70804*

*License Site Location: Freshwater Bayou, Lat. 29°43'27.595", Long. 92°13'24.179", Vermillion Parish*

*Project Description: Dredge 3.2 million cubic yards of fill material and/or fill sand to create 418 acres of brackish marsh as a part of the CWPPRA Cole's Bayou Marsh Creation (TE-0072) Project*

*The rights and privileges shall begin on the 14<sup>th</sup> day of March 2017 and expires on the 31<sup>st</sup> day of December 2017. In the event that licensee reach the amount applied for prior the December 31<sup>st</sup>, 2017 the license will expire at that time.*

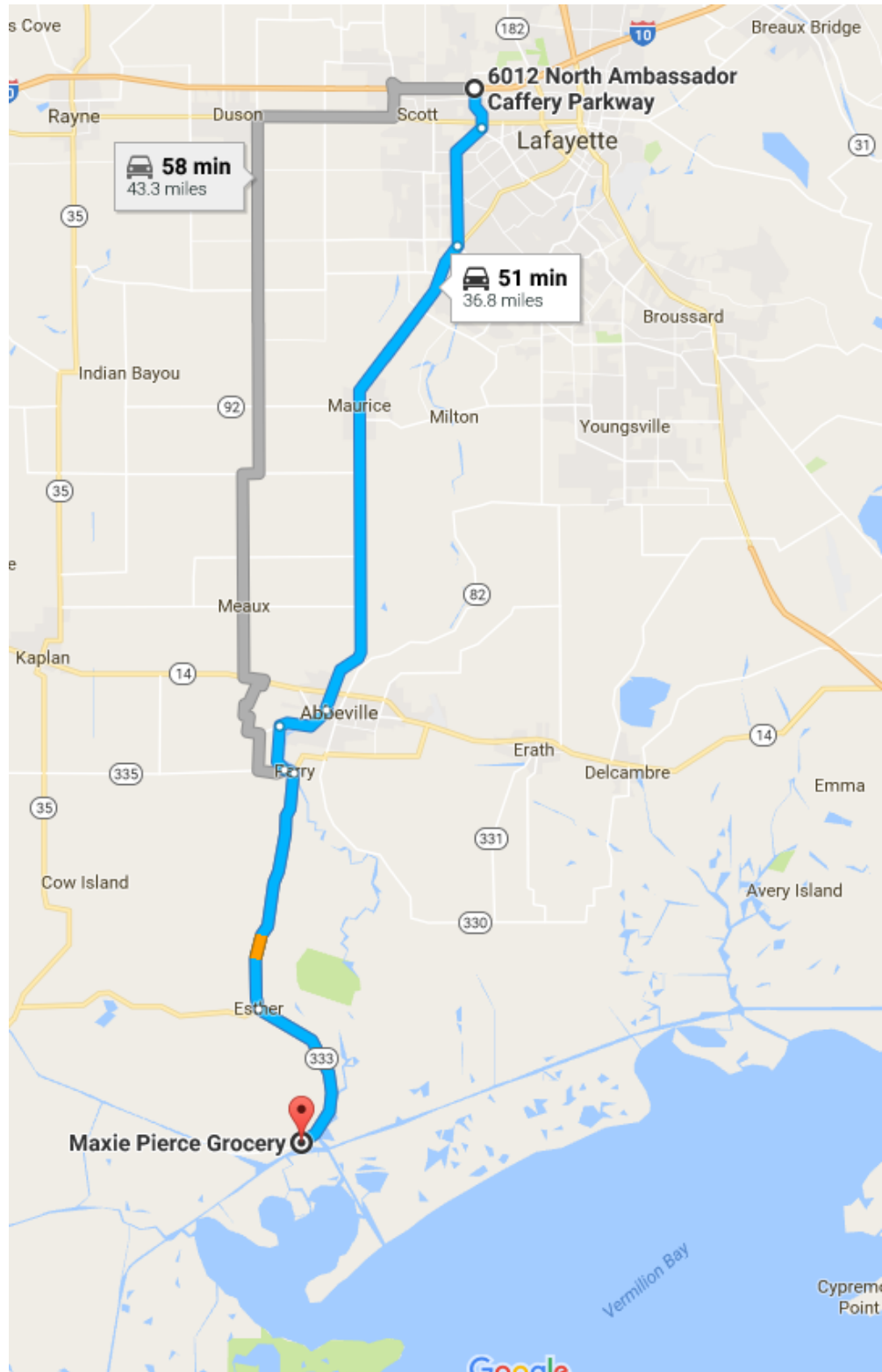
*The use of the fill material authorized for removal by this license is subject to the following restrictions:*

- 1. The Department of Wildlife and Fisheries shall be notified prior to removal of the material and again be notified upon completion of the project.*
- 2. All provisions of the Fill Material License shall be adhered to.*
- 3. This Certificate shall be posted in a conspicuous place at the project site during the activities authorized.*

*Randell S. Myers, Assistant Secretary*

## **APPENDIX G: DIRECTIONS TO BOAT LAUNCH**

Directions to Boat Launch: From I-10 take exit 100 for LA 3184/Ambassador Caffery Pkwy and travel for 3.9 miles to US-167/Johnston Street. Turn right onto Johnston Street and travel 15.4 miles to Port Street. Turn left onto Port Street then Right on LA-335 W/S Henry Street. Continue on S Henry Street for 1.6 miles then turn left onto Pumping Plant Road. Continue on Pumping Plant Road for 1.4 miles then turn left onto LA-694. Turn right onto LA-82 W and continue 7.4 miles until it turns into LA-333 S. Continue on LA-333 S for 5.5 miles. Maxie's will be on the left.



**APPENDIX H: SECONDARY SURVEY MONUMENT DATA SHEET**





**VICINITY MAP** Scale: 1" = 2000'

Reproduced from USC&GS "INTRACOASTAL CITY" Quadrangle

## Station Name: TV12-SM-01

**Monument Location:** The station is located north of Vermilion Bay in Vermilion Parish, Louisiana, set in North Buck Point Oil & Gas Field, southerly Freshwater Bayou.

**Monument Description:** Standard survey disk attached to a stainless steel rod driven to refusal set in and stamped "BUCK POINT".

**Stamping:** "BUCK POINT"

**Date:** October 2000 / Re-Adjusted August 2001

**Monument Established By:** C.H. Fenstermaker & Associates, Inc.

### **CHF Adjusted NAD 83 Datum**

#### **LSZ (1702) Feet**

N= 456,955.01

E= 3,005,295.32

### **CHF Adjusted NAVD88 (Feet)**

Elevation = 2.81

### **Adjusted NAD 83 Geodetic Position**

Lat. 29° 45' 13.192033"N

Long. 92° 12' 06.075020"W

### **Adjusted NAD 83 Datum LSZ (1702) Ft**

N= 456,955.08

E= 3,005,295.33

### **Adjusted NAVD88 Elevation**

2.69 Feet / 0.821 Mtrs.

Ellipsoid Height = -25.299 mtrs

Geoid99 Height = -26.120 mtrs



*Adjusted Position Established by John Chance Land Surveys, Inc. for Louisiana Department of Natural Resources, CRD*

## **APPENDIX I: GEOTECHNICAL REPORT**

<ftp://ftp.coastal.la.gov/TV-63/Geotech%20Data/>



## **APPENDIXJ: SURVEY REPORT**

<ftp://ftp.coastal.la.gov/TV-63/Survey%20Data/>

**APPENDIX K: HYDRAULIC DREDGE DATA SHEET**

## HYDRAULIC DREDGE DATA SHEET

### COLE'S BAYOU MARSH RESTORATION PROJECT (TV-63)

The Contractor shall submit the following Dredge Data Sheet in the Work Plan for each dredge that is proposed to be utilized to perform the Work. The Dredge Data Sheet shall only be utilized for informational purposes. The submitted information is pertinent to the evaluation of the proposed dredges and their capability to perform the Work. The Contractor shall only omit data or information considered to be proprietary. The Dredge Data Sheet shall constitute a certification that the proposed equipment is available to and under control of the Contractor during the Work.

Name of dredge	
Type	
Manufacturer and manufacture date	
Rebuild date and type	
Current location	

Owner/Lease (specify) name	
Contact person	
Contact address	
Contact phone number	

Maximum draft (ft)	
Minimum operating depth (ft)	
Loaded freeboard (ft)	
Maximum dredge depth (ft)	
Minimum dredge depth (ft)	
Maximum effective dredge swing (Degrees)	
Length of dredge spuds (ft)	
Length of dredge hull (ft)	
Beam of dredge hull (ft)	
Length of dredge ladder (ft)	
Inside diameter of suction inlet (in)	
Inside diameter of pump discharge (in)	
Diameter of pump impeller eye (in)	
Outside diameter of pump impeller (in)	
Suction lift or elevation of main dredge pump relative to the water surface level (ft)	
Brake horsepower and corresponding engine RPMs applied to pump impeller at rated drive of the prime mover during dredging operations	
Brake horsepower applied to cutter head during dredging operations	
Pump engine horsepower and RPMs	
Minimum channel width in which dredge can successfully operate and turn 180 degrees	
Type of production rate monitoring equipment	

Expected production rate for beach and dune fill (CY/Day)	NA
Expected production rate for marsh fill (CY/Day)	

Booster pump name and horsepower	
Booster pump name and horsepower	
Booster pump name and horsepower	



## **APPENDIX L: EQUIPMENT DATA SHEET**

## EQUIPMENT DATA SHEET

### COLE'S BAYOU MARSH RESTORATION PROJECT (TV-63)

The Contractor shall submit the following Equipment Data Sheet in the Work Plan for each piece of heavy construction equipment (I.E., barge, track hoe, dozer, pile hammer, etc.) that is proposed to be utilized to perform the Work. The Equipment Data Sheet shall only be utilized for informational purposes. The submitted information is pertinent to the evaluation of the proposed equipment and their capability to perform the Work. The Contractor shall only omit data or information considered to be proprietary. The Equipment Data Sheet shall constitute a certification that the proposed equipment is available to and under control of the Contractor during the Work.

Type of equipment	
Manufacturer and manufacture date	
Condition	
Current location	
Description of use on project	

Owner/Lease (specify) name	
Contact person	
Contact address	
Contact phone number	

Expected production rate (Daily or hourly)	
Weight (tons)	
Dimensions (ft)	
Method of mobilization and demobilization	

**APPENDIX M: DAILY PROGRESS REPORT FORM**

**DAILY PROGRESS REPORT No. \_\_\_\_\_ By \_\_\_\_\_ (Contractor)**  
**Cole's Bayou Marsh Restoration Project (TV-63)**

**Date: \_\_\_\_\_ 2018**

**Report Certification**

Contractor Representative: \_\_\_\_\_ CPRA Project Representative: \_\_\_\_\_

**Weather**

Conditions: _____	Cloudy / Clear / Fog / Windy	Tide Range (ft NAVD88)	Low: _____ High: _____
Precipitation: _____	in.	Seas: _____	Calm / Light Chop / Rough
Wind Speed / Direction: _____	mph	Temperature: _____	°F

**Safety**

Safety Incidents: \_\_\_\_\_ Safety Meeting Topic: \_\_\_\_\_

**Active Field Orders / Change Orders / Claims / Requests for Information / Payment Requests / Acceptance Requests**

FO / CO / Claim / RFI / PR / AR	No.:	Status:
FO / CO / Claim / RFI / PR / AR	No.:	Status:
FO / CO / Claim / RFI / PR / AR	No.:	Status:

**Equipment**

Status of Aids to Navigation: _____	Mechanical Dredge(s) Utilized: _____
Booster Pump Utilized: _____	Hydraulic Dredge(s) Utilized: _____

**Surveys**

Pre-Construction Survey:	Start-Complete: -	Process Survey:	Start-Complete: -
MCA 1 Pre-Construction Survey:	Start-Complete: -	MCA 1 Process Survey:	Start-Complete: -
MCA 2 Pre-Construction Survey:	Start-Complete: -	MCA 2 Process Survey:	Start-Complete: -
MCA 3 Pre-Construction Survey:	Start-Complete: -	MCA 3 Process Survey:	Start-Complete: -
As-Built Survey:	Start-Complete: -		
MCA 1 As-Built Survey:	Start-Complete: -		
MCA 2 As-Built Survey:	Start-Complete: -		
MCA 3 As-Built Survey:	Start-Complete: -		

**Notifications to the Engineer**

Permit Violation: _____	Notice to Mariners: _____
Endangered Species or Cultural Resource: _____	Recordable Injury / Spill: _____
Louisiana One-Call: _____	Dike Failure / Breach: No / Yes Sta: _____
Landowner/Utility Contacted: _____	Settlement Plate Damaged/Repaired: No (s): _____

**Construction**

**Marsh Creation Area 1**

Dike 1 Constructed Today:	Sta Start - End: -	Dike 1 Constructed to Date:	Sta Start - End: -
Marsh Fill Quantity Today:	CY	Marsh Fill Quantity to Date:	CY
		Dewatering Structure:	Installed (Closed or Open) / Removed
Settlement Plates:	No(s) Installed:	Grade Stakes:	No(s) Installed / Removed:



**DAILY PROGRESS REPORT No. \_\_\_\_\_ By \_\_\_\_\_ (Contractor)**  
**Cole's Bayou Marsh Restoration Project (TV-63)**

**Date: \_\_\_\_\_ 2018**

**Marsh Creation Area 2**

Dike 2 Constructed Today:	Sta Start - End:	-	Dike 2 Constructed to Date:	Sta Start - End:	-
Marsh Fill Quantity Today:		CY	Marsh Fill Quantity to Date:		CY
			Dewatering Structure:	Installed (Closed or Open) / Removed	
Settlement Plates:	No(s) Installed:		Grade Stakes:	No(s) Installed / Removed:	

**Marsh Creation Area 3**

Dike 3 Constructed Today:	Sta Start - End:	-	Dike 3 Constructed to Date:	Sta Start - End:	-
Marsh Fill Quantity Today:		CY	Marsh Fill Quantity to Date:		CY
			Dewatering Structure:	Installed (Closed or Open) / Removed	
Settlement Plates:	No(s) Installed:		Grade Stakes:	No(s) Installed / Removed:	

**Dredge Pipe**

Borrow Area Trunk Installed/Removed	Sta Start - End:	-	/	LF	Fill Area 3 Lateral Installed/Removed	Sta Start - End:	-	/	LF
Fill Area 1 Lateral Installed/Removed	Sta Start - End:	-	/	LF					
Fill Area 2 Lateral Installed/Removed	Sta Start - End:	-	/	LF					

**Borrow Area**

Quantity Dredged Today / To Date:	CY /	CY	Dredge Operational Time:	Hrs	
Depth Dredged:		ft NAVD88	Dredge Production Rate:	CY/HR	
Dredge Advance Schematic Attached:	Yes / No		Estimated Percent Solids:	%	
Estimated Discharge Velocity:		ft/s	Estimated Specific Gravity of Slurry:		
Estimated Gallons of Diesel Consumed:		gal	Estimated Gallons of Diesel Consumed to Date:	gal	

**Water Control Structure 1**

Excavated Quantity:	CY	Excavated Quantity to Date:	CY
Earthen Berm Fill Quantity:	CY	Earthen Berm Fill Quantity to Date:	CY
CMP Installed:	LF	CMP Installed to Date:	LF
Quantity of Mats Installed:	SY	Quantity of Mats Installed to Date:	SY

**Water Control Structure 2**

Excavated Quantity:	CY	Excavated Quantity to Date:	CY
Earthen Berm Fill Quantity:	CY	Earthen Berm Fill Quantity to Date:	CY
CMP Installed:	LF	CMP Installed to Date:	LF
Quantity of Mats Installed:	SY	Quantity of Mats Installed to Date:	SY

**Water Control Structure 3**

Excavated Quantity:	CY	Excavated Quantity to Date:	CY
Earthen Berm Fill Quantity:	CY	Earthen Berm Fill Quantity to Date:	CY
CMP Installed:	LF	CMP Installed to Date:	LF
Quantity of Mats Installed:	SY	Quantity of Mats Installed to Date:	SY

## Cole's Bayou Marsh Restoration Project (TV-63)

**Water Control Structure 4**

Excavated Quantity:	_____	CY	Excavated Quantity to Date:	_____	CY
Earthen Berm Fill Quantity:	_____	CY	Earthen Berm Fill Quantity to Date:	_____	CY
CMP Installed:	_____	LF	CMP Installed to Date:	_____	LF
Quantity of Mats Installed:	_____	SY	Quantity of Mats Installed to Date:	_____	SY

**Water Control Structure 5**

Excavated Quantity:	_____	CY	Excavated Quantity to Date:	_____	CY
Earthen Berm Fill Quantity:	_____	CY	Earthen Berm Fill Quantity to Date:	_____	CY
CMP Installed:	_____	LF	CMP Installed to Date:	_____	LF
Quantity of Mats Installed:	_____	SY	Quantity of Mats Installed to Date:	_____	SY

**Water Control Structure 6**

Excavated Quantity:	_____	CY	Excavated Quantity to Date:	_____	CY
Earthen Berm Fill Quantity:	_____	CY	Earthen Berm Fill Quantity to Date:	_____	CY
CMP Installed:	_____	LF	CMP Installed to Date:	_____	LF
Quantity of Mats Installed:	_____	SY	Quantity of Mats Installed to Date:	_____	SY

**Water Control Structure 7**

Excavated Quantity:	_____	CY	Excavated Quantity to Date:	_____	CY
Earthen Berm Fill Quantity:	_____	CY	Earthen Berm Fill Quantity to Date:	_____	CY
CMP Installed:	_____	LF	CMP Installed to Date:	_____	LF
Quantity of Mats Installed:	_____	SY	Quantity of Mats Installed to Date:	_____	SY

**Water Control Structure 8**

Excavated Quantity:	_____	CY	Excavated Quantity to Date:	_____	CY
Earthen Berm Fill Quantity:	_____	CY	Earthen Berm Fill Quantity to Date:	_____	CY
CMP Installed:	_____	LF	CMP Installed to Date:	_____	LF
Quantity of Mats Installed:	_____	SY	Quantity of Mats Installed to Date:	_____	

**Water Control Structure 9**

Excavated Quantity:	_____	CY	Excavated Quantity to Date:	_____	CY
Earthen Berm Fill Quantity:	_____	CY	Earthen Berm Fill Quantity to Date:	_____	CY
CMP Installed:	_____	LF	CMP Installed to Date:	_____	LF
Quantity of Mats Installed:	_____	SY	Quantity of Mats Installed to Date:	_____	SY

**Earthen Plug 3**

Excavated Quantity:	_____	CY	Excavated Quantity to Date:	_____	CY
Earthen Plug Fill Quantity:	_____	CY	Earthen Plug Fill Quantity to Date:	_____	CY

**Earthen Plug 6**

Excavated Quantity:	_____	CY	Excavated Quantity to Date:	_____	CY
Earthen Plug Fill Quantity:	_____	CY	Earthen Plug Fill Quantity to Date:	_____	CY

**Notes:**