Mandatory Pre-Bid Conference for the Cole’s Bayou Marsh Restoration Project (TV-0063)

APRIL 12, 2018, 2:30 PM, CPRA

Prospective bidders must sign in and attend this conference in its entirety in order to bid on this project.
Project Sponsors and Team

• Project Manager: Brad Miller
• Project Engineer: Amanda Taylor, P.E., Shannon Haynes, P.E.
• Construction Manager: Melvin Guidry
• Resident Project Representative: Sellers & Associates

• Federal Project Manager: Patrick Williams
Bid Documents and Addenda

- Complete bid documents and addenda are available for review on the CPRA website.

- Additional data available on CPRA CIMS site: https://cims.coastal.louisiana.gov/outreach/OPL_Full_page.html/

Bidder Questions

- Questions regarding the bid are due 7 days prior to the date for receipt of bids.

- Questions regarding the bid must be submitted in writing (Via Email) to the CPRA contact listed in the Advertisement for Bids.

- All verbal responses given at this conference are nonbinding.
Contract Time

- The contract time shall be **342** consecutive calendar days.
Liquidated Damages

- Liquidated damages in the sum of $5,470.00 shall be deducted from any money due to the Contractor for each consecutive calendar day the Work remains incomplete beyond the Contract Time or as amended by Change Order.

Retainage

- In addition to any Ratio of Effort and Withholdings, a retainage of 5% will be withheld for a minimum of 45 days after Final Acceptance to ensure that all liens are released.
Land Rights Map
All marsh creation areas to be constructed in 1 lift.
• Maximum cut elevation= -15 ft NAVD88
• Previously dredged areas must be surveyed prior to re-dredging.
• Permitted and design maximum elevation is minus fifteen feet (-15ft) NAVD88.
# Borrow Area Boring Logs

## B-19 (West)

### FIELD DATA

<table>
<thead>
<tr>
<th>Depth (Feet)</th>
<th>Field Test Results</th>
<th>Grain Size</th>
<th>Water Content (%)</th>
<th>Atterberg Limits</th>
</tr>
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<tbody>
<tr>
<td>1.5</td>
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<td>0.14</td>
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### LABORATORY DATA

<table>
<thead>
<tr>
<th>Description</th>
<th>Soil Type</th>
</tr>
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<tbody>
<tr>
<td>Very soft gray SILTY CLAY (CL)</td>
<td>( \text{Boring completed at 20 ft.} )</td>
</tr>
<tr>
<td>Stiff to very stiff, gray, and brown SILTY CLAY (CL) w/ trace organics</td>
<td></td>
</tr>
<tr>
<td>Medium tan SILTY CLAY (CL) w/ trace sand</td>
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</table>

## B-21 (East)

### FIELD DATA

<table>
<thead>
<tr>
<th>Depth (Feet)</th>
<th>Field Test Results</th>
<th>Grain Size</th>
<th>Water Content (%)</th>
<th>Atterberg Limits</th>
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</thead>
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### LABORATORY DATA

<table>
<thead>
<tr>
<th>Description</th>
<th>Soil Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very soft gray and brown CLAY (CH) w/ organics</td>
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</tr>
<tr>
<td>Medium brown gray SILTY CLAY (CL) w/ trace fine sand and trace organics</td>
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</tr>
<tr>
<td>Hard gray SANDY CLAY (SC)</td>
<td></td>
</tr>
<tr>
<td>Boring completed at 20 ft.</td>
<td></td>
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</tbody>
</table>
Marsh Creation Borrow Area Access Corridor

- All were probed and remain undetermined.
Marsh Creation Borrow Area Access Corridor Section

- Permitted and design maximum elevation is minus nine feet (-9ft) NAVD88.
- Transcanada Pipeline crosses corridor
  - Must maintain a minimum of 5 foot of cover over Transcanada Pipeline
Marsh Creation Area 1 Plan

- 2 dike geometries
- Armored dike along Freshwater Bayou
- Board mats to be used on dredge pipeline and equipment access corridors crossing existing marsh.
- Decanted water shall be discharged to adjacent marsh nourishment area.
- Acadian Pipeline Crossing
Marsh Creation Area 1 Profile
Marsh Creation Area 1 Armored ECD

NORTHWEST

5.0’

ECD

EL. = 3.5’ +0.5’

CMF EL. = +2.0’ (MAX.) -0.5’

NON-WOVEN GEOTEXTILE FABRIC AND ACB MATS

1

4

4

25.0’ (MIN.)

CMF

EL. = -5.0’ (MAX.)

ECBA

VARIABLES

ARMORED ECD MCA1

TYPICAL SECTION

NTS

Coastal Protection and Restoration Authority of Louisiana
Marsh Creation Area 2 Plan

- 1 dike geometry
- Board mats shall be used on pipeline and equipment access corridor crossing existing marsh.
- Decanted water shall be discharged to adjacent marsh nourishment area.
1 dike geometry
Borrow shall be from the inside of the fill area on west side and outside of the fill area on east side.
Decanted water shall be discharged to adjacent marsh nourishment area.
Unknown Pipeline Crossing
Marsh Creation Area 3 Profiles

Exterior (East) Borrow

Interior (West) Borrow
# Marsh Fill Construction Elevations

<table>
<thead>
<tr>
<th>Marsh Creation Fill Area</th>
<th>Construction Marsh Fill Elevation (Feet. NAVD 88)</th>
<th>Vertical Tolerance (Feet)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>+2.0</td>
<td>-0.5 from maximum</td>
</tr>
<tr>
<td>2</td>
<td>+2.0</td>
<td>-0.5 from maximum</td>
</tr>
<tr>
<td>3</td>
<td>+2.5</td>
<td>-0.5 from maximum</td>
</tr>
</tbody>
</table>
Water Control Structures
Water Control Structures

- 9 water control structures
  - 1-3 pipes per structure
  - 10 timber piles/cradles per pipe
- Backfilled with in-situ fill
- Berm capped with non-woven geotextile fabric and articulated concrete block mats
  - Field cut at pipe locations
Water Control Structures

- 7 locations with existing berm
- Excavated material temporarily stockpiled on each side of pipe trench

- 2 locations with existing breach
- Backfill material from borrow area in oil field canal
  - WCS 4 has a rehandling area to stockpile material
Water Control Structures

- WCS 6 has existing culvert to be removed
- Access from McIlhenny Canal
Earthen Plugs

- 2 earthen plugs
- Constructed using material from borrow area in adjacent canal
Construction Survey Layout
Bid Item 1 (TS-100)
Hydraulic Dredge Mobilization and Demobilization

1. Includes the cost for booster pump (If utilized)
2. Operating and maintenance costs of the dredge and booster pump are included in TS-400.
3. Hydraulic Dredge Data Sheet for each proposed dredge must be submitted in Bid.
4. Equipment Data Sheet for each proposed booster pump must be submitted in Bid.
5. Payment = Lump Sum
6. Ratio of Effort = 60% mobilization and 500 CY dredged / 40% Acceptance of Marsh Creation Areas and demobilization.
Bid Item 2 (TS-101)
Dredge Pipeline Mobilization, Installation and Demobilization

1. Includes installation, maintenance and removal.
2. Includes installation of protection (board mats) on dredge pipeline and equipment access corridors.
3. Payment = Lump Sum
4. Ratio of Effort = 45% mobilization / 45% installation (to Marsh Creation Area 1) / 10% removal of dredge pipeline and Acceptance of Marsh Creation Areas.
Bid Item 3 (TS-102)
General Mobilization and Demobilization

1. Includes all other labor, equipment, supplies, bonds, insurance and all other incidentals.
2. Payment = Lump Sum
3. Ratio of Effort = 60% mobilization of equipment and materials other than those specified in TS-100 and TS-101 / 40% demobilization and Acceptance of all project features.
Bid Item 4 (TS-210)
Construction Surveys

1. Pre-Construction: Marsh Creation Borrow Area (Bathy and Mag), Marsh Creation Areas (Topo), Containment Dikes (Topo), Containment Dike Borrow Areas (Topo and Mag), Dredge Pipeline Alignment (Bathy/Topo and Mag), MCBA Access Corridor (Bathy and Mag), Equipment Access Alignments (Bathy/Topo and Mag), Aids to Navigation, Temporary Bench Marks, Settlement Plates and Grade Stakes. Ratio of effort = 40%.


3. As-Built: Performed for Acceptance of all Work. Ratio of effort = 20%.

4. Payment = Lump Sum
Bid Item 5 (TS-220)
Grade Stakes

1. Payment = Each
2. Ratio of Effort = 50% installation / 50% Removal and Acceptance of Marsh Creation Areas.
Bid Item 6 (TS-250)
Settlement Plates

1. Contractor to install settlement plates in marsh creation areas and within earthen containment dikes.
2. Payment = Each
3. Ratio of Effort = 50% installation / 50% Acceptance of Marsh Creation Areas.
Bid Item 7 (TS-251)
Instrumented Settlement Plates

1. Contractor to fabricate and install 4 instrumented settlement plates in Marsh Creation Area 3, and to furnish instrumentation. CPRA to assemble instrumentation onto the settlement plates during installation with assistance from Contractor.

2. Payment = Lump Sum

3. Ratio of Effort = 50% installation / 50% Acceptance of Marsh Creation Areas.
Bid Item 8 (TS-300)
Earthen Containment Dikes

1. ECDs to be constructed around perimeter of Marsh Creation Areas 1, 2, and 3.
2. Maintained until the Marsh Creation Areas are Accepted.
3. Payment = Linear Foot
4. Ratio of Effort = 90% Acceptance of ECDs / 10% Acceptance of Marsh Creation Areas and As-Built survey.
1. Excavation and placement of material at 9 water control structure locations and 2 earthen plug locations.
2. Temporary dewatering structures included if utilized
3. Payment = Lump Sum
Bid Item 10 (TS-330)
Marsh Creation Borrow Area Access Corridor

1. Material from Marsh Creation Borrow Area Access Corridor to be temporarily side cast into Temporary Disposal Areas.
2. Access channel shall be maintained until the hydraulic dredge is demobilized from the Marsh Creation Borrow Area.
3. Backfilled upon demobilization of hydraulic dredge.
4. Payment= Lump Sum
5. Ratio of Effort = 50% Excavation of Marsh Creation Borrow Area Access Corridor / 50% Backfilling the corridor and As-Built Survey of the Marsh Creation Borrow Area Access Corridor
Bid Item 11 (TS-400)
Hydraulic Dredging and Marsh Fill

1. Marsh Creation Areas 1, 2, and 3 shall be constructed in 1 lift.
2. Dewatering shall be directed to the permitted marsh nourishment areas.
3. Payment will be made on total Cubic Yards dredged from the Marsh Creation Borrow Area (“Pay on the cut”).
4. Ratio of effort for payment: 80% Acceptance of marsh creation areas / 20% As-Built Surveys of marsh creation areas.
Bid Item 12 (TS-510)
Corrugated Metal Pipe

1. Installed at each of the water control structure locations shown on the Plans.
2. Payment= Linear Foot.
Bid Item 13 (TS-520)
Inline Check Valve

1. Check valves shall be installed within the CMP as per the Manufacturer’s recommendations
2. Corrugations around valve shall be filled with hydraulic cement or approved equal
3. Payment= Each.

NOTE:
CONTRACTOR TO COORDINATE WITH IN-LINE VALVE MANUFACTURER PRIOR TO PROCUREMENT.
Bid Item 14 (TS-630)  
Non-Woven Geotextile Fabric

1. Installed over earthen containment dike along Freshwater Bayou in Marsh Creation Area 1.
2. Installed over earthen berm at all water control structures.
3. Payment = Square Yards
4. Ratio of effort for payment: 45% after installation at Marsh Creation Area 1, 45% after installation at all water control structures, 10% after Acceptance at Marsh Creation Area 1 and all water control structures
Bid Item 15 (TS-750)
Articulated Concrete Block Mats

1. Installed over geotextile fabric on earthen containment dike at Freshwater Bayou in Marsh Creation Area 1.
2. Installed over geotextile fabric on earthen berms at all water control structures.
3. Payment = Square Yard
4. Ratio of effort for payment: 45% after installation at Marsh Creation Area 1, 45% after installation at all water control structures, 10% after Acceptance at Marsh Creation Area 1 and all water control structures
Bid Item 16 (TS-950)
Treated Timber Piles

1. Installed along each pipe as shown on the Plans
2. Installed using mechanical equipment
3. Vibratory Hammers will not be allowed
4. Payment= Each
Bid Item 17 (TS-955)  
Treated Timber

1. Includes furnishing lumber of the sizes and grade specified.  
2. Installed as shown on the Plans.  
3. Payment= Thousand Board-Feet (MFBM)
Work Plan

1. Progress Report and Progress Meeting Format;
2. Hurricane and Health and Safety Plan;
3. Dredge data sheet(s);
4. Equipment data sheets;
5. Layout and schedule of all work (Surveys, equipment routes, pipeline alignments, staging areas, etc.) ;
6. Dike breach repair procedures and communications protocol.

- Payment for Mobilization will not be made until Acceptance of the Work Plan.
Permits

- Owner has secured the following permits:
  - Department of the U.S. Army Permit;
  - Consistency Determination from the LDNR;
  - Fill Permit from the LDWF.
Contractor Notifications

1. Land owners, utility operators and Louisiana One-Call prior to construction;
2. Engineer before performing surveys and after field work is complete;
3. Engineer regarding noncompliance with permit conditions (Marsh Creation Borrow Area, etc.);
4. Engineer regarding dike breaches;
5. Engineer regarding discovery of historical or cultural artifacts;
Notice to Mariners and Navigation

1. A copy of the Notice to Mariners shall be provided to the Engineer prior to excavation or dredging.

2. After consultation with the USCG, the Contractor shall provide the type and location of any necessary aids to navigation to the Engineer.
   - Signage in Little Vermilion Bay along MCBA Access Corridor
Other Available Data

- Survey and geotechnical reports are provided on the CPRA CIMS website
# Schedule of Bid Items

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Work or Material</th>
<th>Quantity</th>
<th>Unit</th>
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<tbody>
<tr>
<td>1</td>
<td>Hydraulic Dredge Mobilization and Demobilization (TS-100)</td>
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<td>LS</td>
</tr>
<tr>
<td>2</td>
<td>Dredge Pipeline Mobilization, Installation, and Demobilization (TS-101)</td>
<td>1</td>
<td>LS</td>
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<tr>
<td>3</td>
<td>General Mobilization and Demobilization (TS-102)</td>
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<tr>
<td>4</td>
<td>Surveys (TS-210)</td>
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<td>5</td>
<td>Grade Stakes (TS-220)</td>
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<td>Each</td>
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<tr>
<td>6</td>
<td>Settlement Plates (TS-230)</td>
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<td>7</td>
<td>Instrumented Settlement Plates (TS-251)</td>
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<td>Earthen Containment Dikes (TS-300)</td>
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<td>Earthwork (TS-310)</td>
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<td>Marsh Creation Borrow Area Access Corridor (TS-330)</td>
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<td>Hydraulic Dredging and Marsh Creation (TS-400)</td>
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<td>Inline Check Valve (TS-520)</td>
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<td>Non-woven Geotextile Fabric (TS-640)</td>
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<td>Treated Timber Piles (TS-950)</td>
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<td>17</td>
<td>Treated Timber (TS-955)</td>
<td>7.8</td>
<td>MFBM</td>
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Bids

• Sealed bids will be received for the State of Louisiana by the Coastal Protection and Restoration Authority, 150 Terrace Avenue, 4th Floor Conference Center, Baton Rouge, Louisiana 70802 until **2:00 P.M. April 24, 2018**.

• Bidder Questions are due by COB on **April 17, 2018**.