GENERAL NOTES:
1. THE CONTRACTOR SHALL NOT, AT ANY TIME, TREAD ON EXISTING MARSH OR VEGETATED WETLANDS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING SAFE ACCESS TO THE PROJECT AND FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT AREA. ALL EQUIPMENT SHALL BE FLOATING AT ALL TIMES DURING TRANSIT TO AND FROM THE PROJECT SITE. THE CPRA CONSTRUCTION ENGINEER OR THE RESIDENT PROJECT REPRESENTATIVE SHALL MONITOR THE LOCATION OF EQUIPMENT DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL NOT, AT ANYTIME, TRAVERSER EXISTING MARSH OR VEGETATIVE WETLANDS OUTSIDE THE MARSH CREATION AREAS AND LOCATIONS SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE CPRA CONSTRUCTION ENGINEER.
4. PLANS AND SPECIFICATIONS ARE COMPLEMENTARY, WHAT IS REQUIRED BY ONE IS BINDING AS REQUIRED BY ALL. CLARIFICATIONS AND INTERPRETATIONS OF PLANS OR NOTIFICATIONS OF MINOR VARIATIONS AND DEVIATIONS IN THE CONTRACT DOCUMENTS, WILL BE ISSUED BY THE ENGINEER.
5. ANY DAMAGE TO EXISTING U.S. COAST GUARD NAVIGATION AIDS OR PRIVATE NAVIGATION AIDS SHALL BE REPAID BY THE CONTRACTOR TO U.S. COAST GUARD STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
6. THE EARTHEN CONTAINMENT DYES, EARTHEEN GAP CLOSURES, SHEET PILE CLOSURE, MARSH CREATION AREAS, AND MARSH CREATION BORROW AREA WERE ESTIMATED FOR CONSTRUCTION USING AERIAL PHOTOGRAPHY, FIELD SURVEYS, AND AERIAL PHOTOGRAPHY, AND MAY BE REVISED BY THE ENGINEER AT THE TIME OF CONSTRUCTION TO REFLECT CHANGES IN FIELD CONDITIONS.
7. THE HYDRAULIC DREDGING QUANTITIES FOR THE MARSH CREATION AREAS ARE BASED ON THE BORROW AREA CUBIC VOLUME. ACTUAL QUANTITIES FOR PAYMENT WILL BE BASED ON PROCESS SURVEYS OF THE MARSH CREATION BORROW AREA PERFORMED AS PART OF THIS CONTRACT AS REQUIRED IN TS-210 "CONSTRUCTION SURVEYS" OF THE SPECIFICATIONS.
8. THE CONTRACTOR SHALL PERFORM A MAGNETOMETER SURVEY OF THE BORROW AREAS AND ALL PROPOSED ACCESS CORRIDORS PRIOR TO MOBILIZATION FOR CONSTRUCTION. DRAWINGS SHOWING THE TRACK LINES, ANY MAGNETIC HITS, COORDINATES, AMPLITUDE, SIGNATURE TYPE, AND SIGNATURE WIDTH OF ALL MAGNETIC HITS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO MOBILIZATION. ADDITIONAL TRACK LINES SHALL BE RUN IN ACCORDANCE WITH TS-210 OF THE SPECIFICATIONS.
9. PIPELINES AND UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL LOCATE AND MARK ALL PIPELINES AND UTILITIES LOCATED WITHIN 150 FT OF THE WORK PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN THESE MAKERS DURING CONSTRUCTION.
10. THE CONTRACTOR IS RESPONSIBLE FOR CONTAINING ALL HYDRAULICALLY DREDGED MATERIAL WITHIN THE BOUNDARIES OF THE MARSH CREATION AREAS.
11. BACKGROUND IMAGERY WAS TAKEN IN YEAR 2016.

NOTIFICATIONS:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE PIPELINE AND UTILITIES OPERATORS LISTED IN SP-11 AT LEAST 10 WORKING DAYS IN ADVANCE OF THE WORK. PIPELINES LOCATED WITHIN 100 FT OF THE WORK SHALL BE MARKED BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN BUDDYS DURING CONSTRUCTION AND HAVE QUALIFIED NAVIGATIONAL EQUIPMENT ON THE DREDGE TO AVOID DREDGING IN RESTRICTED AREAS. THE CONTRACTOR SHALL CONTACT LOUISIANA ONE CALL AT 1-800-722-3333 FIVE (5) DAYS PRIOR TO ANY EXCAVATION AND/OR DREDGING TO LOCATE ALL PIPELINES OR UTILITIES.
2. THE CONTRACTOR SHALL NOTIFY THE LANDOWNERS LISTED IN SP-11 OF THE SPECIFICATIONS AT LEAST FIVE (5) WORKING DAYS PRIOR TO PERFORMING THE WORK AND ADHERE TO CPRA LAND RIGHTS PROTOCOL.

DESIGN NOTES:

<table>
<thead>
<tr>
<th>SECONDARY MONUMENT</th>
<th>ELEVATION</th>
<th>Northing</th>
<th>Easting</th>
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<tbody>
<tr>
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<td>390,435.12</td>
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3. MEAN HIGH WATER (MHW) AND MEAN LOW WATER (MLW) ELEVATIONS WERE CALCULATED FROM THE COASTAL RESOURCES MANAGEMENT SYSTEM (CRMS) MONITORING STATION (CRMS-2) LOCATED APPROXIMATELY ONE MILE WEST OF THE PROJECT USING DATA FROM FEBRUARY 2008 TO JUNE 2016 AND SUBORDINATE ELEVATIONS ARE REFERENCED TO NAVD 88 GECID 12A, US FEET. MHW=0.65 AND MLW=-0.27.
4. ESTIMATED HYDRAULIC DREDGING QUANTITIES SHOWN ARE FOR ESTIMATING PURPOSES ONLY AND WERE CALCULATED ACCORDING TO CONDITIONS SURVEYED FROM SEPTEMBER 2012 THROUGH MARCH 2013 AND JUNE 2015 THROUGH AUGUST 2015. QUANTITIES WERE CALCULATED USING AERIAL PHOTOGRAPHY AND MHW FOR SECTIONS.

### SUMMARY OF ESTIMATED QUANTITIES

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Estimated Quantity</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>MOBILIZATION AND DEMOBILIZATION (TS-100)</td>
<td>LIMP SUM</td>
<td>1</td>
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<tr>
<td>2</td>
<td>CONSTRUCTION SURVEYS (TS-210)</td>
<td>LIMP SUM</td>
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<td>3</td>
<td>SETTLEMENT PLATES (TS-250)</td>
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<td>12</td>
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<td>4</td>
<td>INSTRUMENTED SETTLEMENT PLATES (TS-251)</td>
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<td>5</td>
<td>EARTHEN CONTAINMENT DYES (TS-300)</td>
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<td>6</td>
<td>EARTHEN GAP CLOSURES (TS-310)</td>
<td>LINEAR FOOT</td>
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<td>SHEET PILE CLOSURE (TS-311)</td>
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<td>EQUIPMENT ACCESS CHANNELS (TS-330)</td>
<td>LIMP SUM</td>
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<td>9</td>
<td>HYDRAULIC DREDGING AND MARSH MATERIAL (TS-400)</td>
<td>CUBIC YARD</td>
<td>2,286,000</td>
</tr>
</tbody>
</table>

1. WHERE THE QUANTITY OF WORK WITH RESPECT TO ANY ITEM IS COVERED BY A UNIT PRICE, SUCH QUANTITIES ARE ESTIMATED QUANTITIES TO BE USED WHEN COMPARE BIDS AND THE RIGHT IS RESERVED BY THE OWNER TO INCREASE/DECREASE SUCH QUANTITIES UP TO 25% WITHOUT ADJUSTMENT OF THE UNIT PRICE AS MAY BE NECESSARY TO COMPLETE THE WORK AS DESCRIBED IN THESE PLANS AND SPECIFICATIONS AND/OR REMAIN WITHIN FUNDING LIMITS.

### ACRONYMS & ABBREVIATIONS:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>CMF</td>
<td>CONSTRUCTED MARSH FILL</td>
</tr>
<tr>
<td>CY</td>
<td>CUBIC YARD</td>
</tr>
<tr>
<td>DPC</td>
<td>DREDGE PIPE CORRIDER</td>
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<tr>
<td>EAC</td>
<td>EQUIPMENT ACCESS CORRIDOR</td>
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<td>ECD</td>
<td>EARTHEN CONTAINMENT DIKE</td>
</tr>
<tr>
<td>ECD BA</td>
<td>EARTHEN CONTAINMENT DIKE BORROW AREA</td>
</tr>
<tr>
<td>EL</td>
<td>ELEVATION</td>
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>MCA</td>
<td>MARSH CREATION AREA</td>
</tr>
<tr>
<td>MCBA</td>
<td>MARSH CREATION BORROW AREA</td>
</tr>
<tr>
<td>PL</td>
<td>PIPELINE</td>
</tr>
<tr>
<td>SP</td>
<td>SQUARE FOOT</td>
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</tbody>
</table>
NOTES:
1. THE MARSH CREATION BORROW AREA CONTAINS APPROXIMATELY 6.6 M CUBIC YARDS OF MATERIAL.
2. MAGNETOMETER AND BATHYMETRIC SURVEYS SHALL BE CONDUCTED ON THE BORROW AREAS ACCORDING TO THE SPECIFICATIONS.
3. NO HYDRAULIC DREDGING WITH 200' RADIUS OF POTENTIAL OIL/GAS WELLS.
4. THE CONTRACTOR SHALL NOT MECHANICALLY EXCAVATE, ANCHOR, OR SPUD WITHIN 50' OF A PIPELINE OR WELL HEAD.
NOTES:
1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
2. ALL PIPELINES LOCATED WITHIN 150' OF THE FILL AREAS, DREDGE PIPELINE CORRIDOR, OR DIKE ALIGNMENTS SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR SHALL NOT MECHANICALLY EXCAVATE, ANCHOR, OR SPUD WITHIN 50' OF A PIPELINE OR WELL HEAD.

LEGEND

WEST MARSH CREATION AREA
NO EXCAVATION
DREDGE PIPELINE AND EQUIPMENT ACCESS CORRIDOR
EARTHEN CONTAINMENT DIKE
EQUIPMENT ACCESS CORRIDOR
EARTHEN GAP CLOSURE
MARSH CREATION AREA PERIMETER

SOUTHERN PERIMETER ECD (SEE DETAIL SHEET 10)
NO EXCAVATION (SEE NOTE 3) PROTECTIVE MEASURES REQUIRED

EARTHEN GAP CLOSURE 8 (SEE DETAILS ON SHEET 18)
EARTHEN GAP CLOSURE 7 (SEE DETAILS ON SHEET 18)
EARTHEN GAP CLOSURE 6 (SEE DETAILS ON SHEET 17)
EARTHEN GAP CLOSURE 5 (SEE DETAILS ON SHEET 15)
EARTHEN GAP CLOSURE 4 (SEE DETAILS ON SHEET 14)
EARTHEN GAP CLOSURE 3 (SEE DETAILS ON SHEET 13)
EARTHEN GAP CLOSURE 2 (SEE DETAILS ON SHEET 12)
EARTHEN GAP CLOSURE 1 (SEE DETAILS ON SHEET 11)

NO EXCAVATION (SEE NOTE 3) PROTECTIVE MEASURES REQUIRED

COASTAL PROTECTION AND RESTORATION AUTHORITY
NORTHWEST TULE BAY MARSH CREATION PROJECT
TURTLE BAY
1-12-2018
DATE: DEC 2018
SHEET: 3 OF 29
**TYPICAL SECTION - MARSH CREATION BORROW AREA**

**TYPICAL SECTION - WEST ACCESS DREDGING**

**TYPICAL SECTION - EAST ACCESS DREDGING**

**LEGEND**
- ☑️ BORROW AREA
- ☑️ POTENTIAL ACCESS DREDGING
- ☑️ TEMPORARY SPOIL
- ☑️ WATER BOTTOM

*NOTE:* THE TEMPORARY SPOIL SHALL BE BACKFILLED PRIOR TO PROJECT COMPLETION LEAVING THE WATER BOTTOM NO HIGHER THAN 0.5' OF PRE-CONSTRUCTION ELEVATIONS.
PLAN VIEW

NOTES:
1. THE WIDTH OF THE EARTHEN GAP CLOSURE BORROW AREA SHALL NOT EXCEED THE WIDTH OF THE EARTHEN GAP CLOSURE.
2. SEE SHEET S FOR EARTHEN GAP CLOSURE LOCATION.

SECTION

SOUTHWEST

CLOSURE

MFW = 0.66'

MLW = 0.20'

EL = -10.0' (MAX.)

EL = -1.5' + 0.5' (MAX.)

EXISTING WATER BOTTOM

EXISTING MARSH

MAWS FILL NOT SHOWN FOR CLARITY

EXISTING BORROW AREA

25.0' MIN.

30' 15' 0' 30' 60'

HORIZONTAL GRAPHIC SCALE

VERTICAL GRAPHIC SCALE

PROFILE

MAX.

SOUTHEAST

CLOSURE

MFW = 0.66'

MLW = 0.20'

EL = 1.5' + 0.5' (MAX.)

60.0'

30' 15' 0' 30' 60'

HORIZONTAL GRAPHIC SCALE

VERTICAL GRAPHIC SCALE

LEGEND

EARTHEN GAP CLOSURE

EARTHEN GAP CLOSURE BORROW AREA

EXISTING MARSH

EXISTING WATER BOTTOM

COASTAL PROTECTION AND
RESTORATION AUTHORITY

DATE: DEC 2018
NOTES:
1. THE WIDTH OF THE EARTHEN GAP CLOSURE BORROW AREA SHALL NOT EXCEED THE WIDTH OF THE EARTHEN GAP CLOSURE. SEE SHEET 5 FOR EARTHEN GAP CLOSURE LOCATION.
**NOTES:**

1. The width of the earthen gap closure borrow area shall not exceed the width of the earthen gap closure. See Sheet S for earthen gap closure location.

2. Variability in cut and fill conditions will occur.

---

**LEGEND**

- **Earthen Gap Closure**
- **Earthen Gap Closure Borrow Area**
- **Existing Marsh**
- **Existing Water Bottom**
PLAN VIEW

NOTES:
1. THE WIDTH OF THE EARTHEN GAP CLOSURE BORROW AREA SHALL NOT EXCEED THE WIDTH OF THE EARTHEN GAP CLOSURE.
2. SEE SHEET 5 FOR EARTHEN GAP CLOSURE LOCATION.

SECTION

SOUTHWEST

NORTHWEST

VERTICAL GRAPHIC SCALE

HORIZONTAL GRAPHIC SCALE

LEGEND

EARTHEN GAP CLOSURE
EARTHEN GAP CLOSURE BORROW AREA
EXISTING MARSH
EXISTING WATER BOTTOM

DATE: DEC 2004
SHEET 17 OF 39
NOTES:
1. THE WIDTH OF THE EARTHEN GAP CLOSURE BORROW AREA SHALL NOT EXCEED THE WIDTH OF THE EARTHEN GAP CLOSURE LOCATION.
2. SEE SHEET 5 FOR EARTHEN GAP CLOSURE LOCATION.

LEGEND
- EARTHEN GAP CLOSURE
- EARTHEN GAP CLOSURE BORROW AREA
- EXISTING MARSH
- EXISTING WATER BOTTOM

DATE: DEC 2013
SHEET 15 OF 70
**NOTES:**
1. The width of the Earthen Gap Closure Borrow Area shall not exceed the width of the Earthen Gap Closure. See Sheet 5 for Earthen Gap Closure location.
2. **EL = 1.5' + 0.5' (MAX.)** for Earthen Gap Closure.

**Legend:**
- Earthen Gap Closure
- Earthen Gap Closure Borrow Area
- Existing Marsh
- Existing Water Bottom
TYPICAL SECTION - EAST MARSH CREATION AREA
NOTES:
1. SETTLEMENT PLATES SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS.
2. CONTRACTOR TO DRIVE STAND PIPE BELOW GRADE TO THE DEPTH DETERMINED BY THE ENGINEER IN THE FIELD.
LEGEND

- Earthen Containment Dike
- Earthen Containment Dike Borrow Area
- Marsh Creation Fill
- Existing Grade

NOTE:
All elevations are given in the North American Vertical Datum of 1988 (NAVD88) Geoid 12a.
NOTE:
ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) GECID 12A.
NOTE:
ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) GEODETIC 12A.
NOTE:
ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN
VERTICAL DATUM OF 1988 (NAVD88) GEOID 12A.
NOTE: ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) GEOD 12A.