ATTACHMENT X
LAKE CHAPEAU MARSH CREATION AND HYDROLOGIC RESTORATION

AS-BUILT DRAWINGS
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
and
STATE OF LOUISIANA
DEPARTMENT OF NATURAL RESOURCES, COASTAL RESTORATION DIVISION

Plans of Proposed
TE-26 LAKE CHAPEAU WARNING BUOY REPLACEMENT
TERREBONNE PARISH
MAY 2003

INDEX TO SHEETS:
SHEET NO. DESCRIPTION
1 TITLE SHEET, STATE AND LOCAL VENITY MAPS
2 GENERAL NOTES AND ESTIMATED QUANTITIES
3 OVERALL PROJECT SITE PLAN
4 PLAN VIEW - SITE 1
5 PLAN VIEW - SITE 2 AND SITE 3
6 PLAN VIEW - SITE 4
7 TYPICAL BRACKET/PIPE DETAILS
8 TYPICAL BRACKET/PIPE DETAILS
9 TYPICAL BRACKET/PIPE DETAILS
10 TYPICAL BRACKET/PIPE DETAILS
TOTAL NO. OF SHEETS 10

LOCATION MAP
NOT TO SCALE

RECOMMENDED FOR APPROVAL
DHR/CRD ENGINEER MANAGER
DATE
DHR/CRD ENGINEER MANAGER
DATE
PREPARED BY:
PICCIOLA & ASSOCIATES, INC.

CIVIL ENGINEERS
NAVAL ARCHITECTS
MARINE ENGINEERS

DRAWING PLOTTED AT HALF-SCALE
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>MODIFICATION AND DEMOLITION</td>
<td>LUMP SUM</td>
<td>LUMP SUM</td>
</tr>
<tr>
<td>2</td>
<td>REMOVAL OF EXISTING WARNING BODY STRUCTURES</td>
<td>LUMP SUM</td>
<td>LUMP SUM</td>
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<tr>
<td>3</td>
<td>TIGHT PLUMBS (CLASS B) 200 LBS. (DIM. 20' LONG)</td>
<td>LIN. FT.</td>
<td>1000</td>
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<tr>
<td>4</td>
<td>TIGHT PLUMBS (CLASS B) 250 LBS. (DIM. 25' LONG)</td>
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<td>1740</td>
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<td>LIN. FT.</td>
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<td>4</td>
<td>PLUMB CAPS (GALVANIZED)</td>
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<td>164</td>
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<tr>
<td>5</td>
<td>FABRICATED BRACKETS (TIE STUDS GALVANIZED)</td>
<td>EACH</td>
<td>328</td>
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<tr>
<td>6</td>
<td>7/16&quot; X 0.5&quot; X 13&quot; GALV. BOLTS, NUTS &amp; WASHERS PER UNIT</td>
<td></td>
<td>328</td>
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<td>7</td>
<td>WARNING SIGNS</td>
<td>LIN. FT.</td>
<td>2.831</td>
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<tr>
<td>8</td>
<td>REFLECTIVE TAPE</td>
<td>EACH</td>
<td>22</td>
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**GENERAL NOTES:**

1. BASIC HORIZONTAL AND VERTICAL CONTROL POINTS HAVE BEEN ERECTED OR DESIGNATED BY THE ENGINEER AND ARE SHOWN ON THE PLANS. CONTRACTOR SHALL MAINTAIN AND PROTECT FROM DAMAGE OR DESTROYING THESE CONTROL POINTS PER ALL ADDITIONAL SURVEY, LAYOUT, AND MEASUREMENT WORK USING THESE CONTROL POINTS.

2. CONTRACTOR SHALL VERIFY EXISTING GRADES, ELEVATIONS, AND LOCATIONS IN THE FIELD PRIOR TO CONSTRUCTION.

3. CONTRACTOR SHALL COORDINATE WITH ALL LAWS, LAWS AND REGULATIONS OF THE LOUISIANA STATE POLICE, THE U.S. MARINE COAST GUARD, AND STATE OR PARISH PROPERTY OWNERS, VARIOUS GOVERNMENT AGENCIES, AND OTHER STATE OR PARISH AUTHORITIES INVOLVED IN REGULATING AND PERMITTING LIQUID FUELS, WATER, WASTES, WILDLIFE, AND DOMESTIC ANIMALS.

4. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE FEDERAL, STATE, AND PARISH LAWS CONCERNING POLLUTION OF WATERS, PROTECTION OF SHELVES, FISH, WATERS, WILDLIFE, AND DOMESTIC ANIMALS.

5. CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANOR AS TO CAUSE THE LEAST POSSIBLE INTERFERENCE WITH BOTH THROUGH AND LOCAL MARINE TRAFFIC.

6. CONTRACTOR SHALL EMPLOY EFFECTIVE MEASURES TO CONTROL DUST, EMISSIONS, AND CONSTRUCTION SURFACES.

7. THE SAFETY HAZARDS PROMULGATED BY AND THE PRECAUTIONS ESTABLISHED BY THE DEPARTMENT OF LABOR AND OTHER REGULATING AUTHORITIES HAVING JURISDICTION AND THAT ARE APPLICABLE TO THE WORK SHALL BE ADHERED TO AND ENFORCED BY THE CONTRACTOR.

8. TEMPORARY UTILITIES AND SANITARY FACILITIES FOR OPERATION OF THE CONTRACTOR'S PLANT OR EQUIPMENT SHALL BE PROVIDED AND MAINTAINED AT THE EXPENSE OF THE CONTRACTOR.

9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OTHER PERMITS.

10. CONSTRUCTION SITES FOR ALL WORK AND RIGHT-OF-WAY ON THE SITE SHALL BE PROVIDED BY OWNER.

11. ALIGNMENTS AND/OR ELEVATIONS MAY BE ADJUSTED IN THE FIELD BY THE PROJECT ENGINEER TO MEET CHANGING FIELD CONDITIONS OR TO BETTER ASSURE ACHIEVEMENT OF PROJECT GOALS. ANY ADDITIONAL QUANTITIES WILL BE PAID FOR AT THE UNIT PRICE OF THE SPECIFIC ITEM.

12. CONTRACTOR SHALL NOT BE HELD LIABLE FOR INCREASED COST DUE TO CHANGING SITE CONDITIONS OR WHEN A TEMPLATE IS MAINTAINED.

13. CONTRACTOR SHALL NOT BE HELD LIABLE FOR INCREASED COST DUE TO CHANGING FIELD CONDITIONS, OR WHEN A TEMPLATE IS MAINTAINED.

14. X AND Y COORDINATES ARE BASED ON NAD 83. LATITUDES AND LONGITUDES ARE BASED ON NAD 83. SOUTHERN REFERENCE WATER LEVEL SHOWN.

**TECHNICAL NOTES:**

1. WARNING SIGNS WILL BE INSTALLED ON EACH COMPLETED PIPELINE AND WILL BE PLACED AWAY FROM THE PLUMBS AS SHOWN ON THE DRAWING. SIGNS SHALL CONFORM TO COAST GUARD STANDARD 33-100 (S-4U-17). EACH WARNING SIGN SHALL HAVE A 2" GRAY BORDER OF RETROREFLECTIVE MATERIAL. LETTERING WILL BE BLACK ON A FIELD OF RETROREFLECTIVE MATERIAL.

2. IN ADDITION TO WARNING SIGNS, RETROREFLECTIVE TAPE SHALL BE WRAPPED AROUND EACH PIPE BETWEEN PLUMB CAPS AS SHOWN ON PLANS.

3. NON-PERMISSIVE WATERS SHALL BE PLACED BETWEEN THE WARNING SIGNS AND GALVANIZED BOLTS AT ALL POINTS OF CONTACT.


5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT AREA.

6. THE CONTRACTOR SHALL BE NOTIFIED THAT THE PROJECT SITE IS LOCATED IN OR ADJACENT TO PRIVATE OR STATE PROPERTY. EXCEPT PERMITS SHALL BE EXERCISED IN PROTECTION OF PROPERTY, WILDLIFE AND WILDFOREST FROM DAMAGE OR HARM.


8. A LISTING OF ALL COMPANIES KNOWN TO BE CONDUCTING MINERAL OPERATIONS AND OTHER ACTIVITY IN THE AREA WILL BE PROVIDED TO THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING WHETHER THERE ARE OTHER.
GENERAL NOTES:

1. CONTRACTOR SHALL NOT DISTURB OR IN ANY WAY DAMAGE THE EXISTING SHELL PLUG AT EACH SITE WHILE CONSTRUCTING BARRIERS.

2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING SHELL PLUGS BEFORE FINAL LOCATION OF BARRIERS IS DETERMINED.

3. CONTRACTOR SHALL NOT REMOVE OR DISTURB THE EXISTING WARNING SIGNS THAT ARE INSTALLED ON THE EXISTING SHELL PLUGS.

4. CONTRACTOR SHALL REMOVE THE EXISTING WARNING SIGN UNITS AT EACH SITE. THIS INCLUDES THE BUCKETS, CABLES AND FIXTURES THAT WERE INSTALLED TO RETAIN THE BUCKETS.

5. ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH TITLE 33, PART V, SUBPART 1.

6. DREDGED MUD AND SEDIMENT OF THE LOUISIANA ENVIRONMENTAL REGULATORY CODE, LATEST EDITION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING OF HIS METHOD AND LOCATION OF DISPOSAL.

7. PRIOR TO BEGINNING ANY WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ANY SUB-SURFACE PIPELINE OR STRUCTURES THAT MAY BE AT OR NEAR EACH SITE. CONTRACTOR SHALL WORK CLOSELY WITH ANY COMPANY THAT MAY HAVE SUCH PIPELINES OR STRUCTURES IN THE AREA. LOUISIANA DEPOT CALL CAN BE CONTACTED AT 1-800-372-3620.

8. SEE SHEET 2 FOR ADDITIONAL GENERAL AND TECHNICAL NOTES.
GENERAL NOTES:

1. CONTRACTOR SHALL NOT DISTURB OR IN ANY WAY DAMAGE THE EXISTING SHELL PLUG AT EACH SITE
   WHILE CONSTRUCTING BARRIERS.

2. CONTRACTOR SHALL PULL OUT OF THE EXISTING SHELL PLUG ONCE BEFORE FINAL LOCATION OF BARRIERS IS DETERMINED.

3. CONTRACTOR SHALL NOT REMOVE OR DISTURB THE EXISTING WARNING SIGNS THAT ARE INSTALLED ON
   THE EXISTING SHELL PLUGS.

4. CONTRACTOR SHALL REMOVE THE EXISTING BARRIERS AS NEEDED AT EACH SITE. THIS INCLUDES THE
   HORIZONTAL RAILS AND PIPES THAT WERE INSTALLED TO RETAIN THE BOOFS.

5. ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH TITLE 33, PART VI, SUB-PART
   2 (DOES NOT) OF THE LOUISIANA ENVIRONMENTAL REGULATORY CODE, LATEST EDITION. CONTRACTOR
   SHALL NOTIFY ENGINEER IN WRITING OF HIS METHOD AND LOCATION OF DISPOSAL.

6. PRIOR TO BEGINNING ANY WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ANY
   SUB-SURFACE PIPELINE OR STRUCTURES THAT MAY BE AT OR NEAR EACH SITE. CONTRACTOR SHALL
   NOTIFY THE ENGINEER AT 300-000-0000 OF ANY PIPELINES OR STRUCTURES IN THE AREA.

7. SEE SHEET 2 FOR ADDITIONAL GENERAL AND TECHNICAL NOTES.
GENERAL NOTES:

1. CONTRACTOR SHALL NOT DISTURB OR IN ANY WAY DAMAGE THE EXISTING SHELL PLUG AT EACH SITE WHILE CONSTRUCTING BARRICADE.

2. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING SHELL PLUG TEXAS BEFORE FINAL LOCATION OF BARRICADE IS DETERMINED.

3. CONTRACTOR SHALL NOT REMOVE OR DISRUPT THE EXISTING WARNING SIGNS THAT ARE INSTALLED ON THE EXISTING SHELL PLUGS.

4. CONTRACTOR SHALL REMOVE THE EXISTING WARNING BODY UNITS AT EACH SITE. THIS INCLUDES THE BUOYS, CABLES AND PIPES THAT WERE INSTALLED TO RETAIN THE BUOYS.

5. ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH TITLE 33, PART VI, SUB-PART F (SOLID WASTE) OF THE LOUISIANA ENVIRONMENTAL REGULATORY CODE, LATEST EDITION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING OF HIS METHOD AND LOCATION OF DISPOSAL.

6. PRIOR TO BEGINNING ANY WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ANY SUB-SURFACE PIPES, DRAINS OR STRUCTURES THAT MAY BE AT OR NEAR EACH SITE. CONTRACTOR SHALL PROVIDE THE CONTRACTOR WITH THE LOCATION OF ALL SUCH PIPES, DRAINS OR STRUCTURES IN THE AREA.

7. SEE SHEET 2 FOR ADDITIONAL GENERAL AND TECHNICAL NOTES.
GENERAL NOTES:
1. CONTRACTOR SHALL NOT ALTER OR IN ANY WAY DESTROY THE EXISTING SHELL PLUG AT EACH SITE WHILE CONSTRUCTING BARRIERS.

2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING SHELL PLUG TO THE LOCATION OF BARRIERS AS DETERMINED.

3. CONTRACTOR SHALL NOT REMOVE OR DISTURB THE EXISTING WARNING SIGNS THAT ARE INSTALLED ON THE EXISTING SHELL PLUGS.

4. CONTRACTOR SHALL REMOVE THE EXISTING WARNING BURY UNITS AT EACH SITE. THIS INCLUDES THE BUOYS, CABLES, AND PIPES THAT WERE INSTALLED TO RENJN THE BUOYS.

5. ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH TITLE 33, PART VI, SUB-PART A. WASTE OF THE LOUISIANA ENVIRONMENTAL REGULATORY CODE, LATEST EDITION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING OF HIS METHOD AND LOCATION OF DISPOSAL.

6. PRIOR TO BEGGINING ANY WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ANY SUB-SURFACE PIPELINES OR STRUCTURES THAT MAY BE AT OR NEAR EACH SITE. CONTRACTOR SHALL NOTIFY ANY COMPANY THAT MAY HAVE SUCH PIPELINES OR STRUCTURES IN THE AREA. LOUISIANA ONE CALL CAN BE CONTACTED AT 1-800-272-5000.

7. SEE SHEET 2 FOR ADDITIONAL GENERAL AND TECHNICAL NOTES.

LEGEND:
** EXISTING WARNING SIGNS (T0 REMOVE)