

# DEPARTMENT OF THE ARMY PERMIT

Permittee: Louisiana Coastal Protection and Restoration Authority & Louisiana Department of Transportation and Development

Permit No. 2009-1353-EFF

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** Dredge within an area of the Mississippi River in order to construct a sediment pipeline corridor and marsh restoration/nourishment area; all as part of the Mississippi River Long Distance Sediment Pipeline (LDSP) project, in accordance with the drawings attached in forty-one sheets dated December 12, 2012.

**Project Location:** In Plaquemines Parish and Jefferson Parish, within the Mississippi River at approximately miles 64 and 65, crossing and south of Highway 23, near Naomi, Louisiana.

## Permit Conditions:

### General Conditions:

1. The time limit for completing the work authorized ends on **DEC 31, 2014**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.
2. 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 in compliance with General Condition 4 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.
3. 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.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. 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. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions: See Attached.**

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- Section 404 of the Clean Water Act (33 U.S.C. 1344).
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

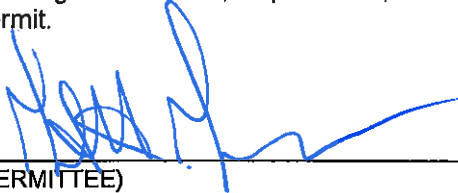
- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
  - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. **Extensions.** General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

X   
 (PERMITTEE)

X 12-20-2012  
 (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

  
 Michael V Farabee, Chief Eastern Evaluation Section

February 19, 2013  
 (DATE)

for Edward R. Fleming, District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
 (TRANSFEEE)


\_\_\_\_\_  
 (DATE)

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. ~~Reliance on Applicant's Data.~~ The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
  - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

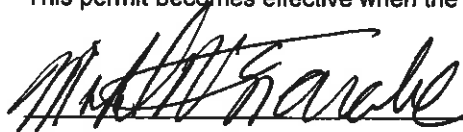
Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

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Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

X  X 2/7/2013  
 (PERMITTEE) ERIC KALISODA, DEPUTY SECRETARY (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

 February 19, 2013  
 Michael V Farabee, Chief Eastern Evaluation Section (DATE)

for Edward R. Fleming, District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
 (TRANSFEEE) (DATE)

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7. This Department of the Army permit authorization expires as of December 31, 2014.
8. The borrow site (Alliance Anchorage Borrow Area) identified in the application, is the saltwater barrier sill's primary Borrow Area #1, (Mississippi River Mile 63.8 to Mile 65 AHP). The issuance of this permit and the permittee's actions hereunder, shall in no way adversely affect the cost, time, and schedule of the planning and/or construction of the saltwater barrier sill by the US Army Corps of Engineers (USACE).
9. The permittee must ensure that 500,000 cubic yards (cy) are always available above elevation -70 NGVD, within the Alliance Anchorage Borrow area. A reserve area for this material has been designated and the reserve quantity must be located within the boundaries shown on the enclosed (Mississippi River Hydrographic Survey Salt Water Sill Borrow Area I- map), as **Attachment I**.
10. While this project is ongoing, the permittee must be aware that the USACE may issue a contract to build the sill. If USACE issues a sill solicitation, the permittee shall allow its contractor to bid on the sill contract. If the permittee's contractor is awarded the sill contract, then the permittee shall release the contractor for the time required to build the sill. If the permittee's contractor chooses not to bid on the sill contract or another contractor is awarded the sill contract, the permittee's contractor shall suspend operations and move off site so as not to interfere with or delay the USACE notice to proceed or the sill contractor's work.
11. Until the Alliance Anchorage Borrow Area is naturally restored from the effects of this permit, any additional costs associated with USACE's construction of the sill shall be borne by the permittee. These additional costs could occur after this permit has expired. These additional costs will be calculated by the USACE. The permittee will provide funds prior to USACE opening bids for the saltwater barrier sill contract.
12. Dredging in the Alliance Anchorage Borrow site is limited to a 1V on 5H slope with a control point 400 feet riverward of the levee C/L and El. +5 feet. The permittee shall submit for approval a detailed dredging plan for the Alliance Anchorage Borrow Area. The plan shall be submitted at least 30 days prior to the scheduled commencement of work in the site and shall include hydrographic surveys of the borrow area with plans for dredging; thereby identifying the material to be removed and the 500,000 cy reserved area (material to be reserved above elevation -70 NGVD). USACE must approve the dredging plan prior to the commencement of permittee's work. The surveys and plans shall be updated every 30 days until project completion. All updated plans must also be approved before the permittee can implement the updated plan. The surveys and dredging plan shall be submitted in electronic format and hardcopy to the USACE Mississippi River Operations Manager. For questions or forwarding information, please contact Mrs. Heather Jennings at (504) 862-1253 or [heather.l.jennings@usace.army.mil](mailto:heather.l.jennings@usace.army.mil).

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13. To address navigation safety during construction of the project, the permittee will initiate a daily conference call; ~~to include representatives of the dredging contractor, the US Coast Guard,~~ pertinent members of the USACE, and other navigation stakeholders. During construction, the frequency of the conference call can be reduced upon agreement from the US Coast Guard and the USACE.
14. Construction over the Mississippi River levee and back levee and within 10 feet of the levee toes as well as open excavations is limited to river stages below +11 feet on the Carrollton gage.
15. The permittee is aware that USACE project (NOV-NFL-5) is proposed for the back levee, at the vicinity of the project site.
16. Dredging in the Alliance South Anchorage Borrow Site is limited to the limits provided in the URS Stability Analysis report dated September 2012.
17. Dredging in the Wills Point Borrow Site is limited to the limits provided in the URS Stability Analysis report dated September 2012.
18. Any damage to the revetment occurring during or as a result of this work will be repaired at the permittee's expense.
19. Construction is not allowed when a hurricane is within 5 days of affecting the Louisiana coast. During such times, the site must be secured, flood protection maintained, and coordination maintained with the Engineering Division of this district.
20. The authorization does not obviate the permittee from obtaining other necessary approvals from pertinent federal, state, and/or local authorities.
21. You shall notify this office in writing within five working days after construction has been completed.
22. The permittee shall assure that contractors, foremen, and/or workers associated with project implementation are equally cognizant of the conditions and restrictions associated with this approval.
23. If archaeological materials and/or human remains are discovered during ground disturbing activities you shall cease and desist all activities in the project area and contact this office and Mr. Dennis Jones of the Louisiana Office of Cultural Development, Division of Archaeology at (225) 342-8160.
24. The permittee is aware that future site visits and inspections may be conducted to the project area by this office and/or other resource agencies, to assess project compliance with this authorization and requirements associated herewith.

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25. 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.
26. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.
27. You must install and maintain, at your expense, any safety lights, signs and signals prescribed by the US Coast Guard, through regulations or otherwise, on your authorized facilities.
28. 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 US Coast Guard 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 US Coast Guard, Sector New Orleans Command Center, 200 Hendee Street, New Orleans, Louisiana 70114, about 1 month before you plan to start work. Telephone inquiries can be directed to (504) 365-2281.
29. The Chitimacha Tribe of Louisiana has stated that the project area is part of the aboriginal Chitimacha homelands. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the applicant will contact the Chitimacha Tribe of Louisiana at Post Office Box 661, Charenton, LA 70523, and the Army Corps of Engineers, New Orleans District (CEMVN) Regulatory Branch. CEMVN will initiate the required Federal, State, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.
30. The proposed project occurs within an area impacted by the Deepwater Horizon Oil Spill in the summer of 2010 and activities such as yours could potentially re-suspend oiled sediments that may be located in the area. It is also noted that cleanup crews associated with the US Coast Guard's Deepwater Horizon Response are potentially working in multiple sites located throughout the Louisiana coastal area. In order to coordinate and mitigate potential re-suspension of oiled sediments, adverse impacts to fish and wildlife species, and safety issues related to cleanup operations; the permittee shall contact and coordinate with LT David R. Simonson, US Coast Guard Deepwater Horizon Response (504-252-8748 or [david.r.simonson@uscg.mil](mailto:david.r.simonson@uscg.mil)) , prior to commencement of work.

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31. After one complete growing season following completion of spoil placement within the proposed beneficial use areas, the permittee will manually breach or degrade the earthen containment dikes to marsh elevation, if they do not degrade naturally.

32. If the proposed project requires any additional work not expressly permitted herein, the permittee must obtain an amendment to this authorization prior to commencement of work.

33. In order to address potential impacts to the **Pallid sturgeon**, the cutterhead shall remain completely buried in the bottom material during dredging operations. If pumping water through the cutterhead is necessary to dislodge material or to clean the pumps or cutterhead, etc., the pumping rate shall be reduced to the lowest rate possible until the cutterhead is at mid-depth, where the pumping rate can then be increased. During dredging, the pumping rates shall be reduced to the slowest speed feasible while the cutterhead is descending to the channel bottom. Should the proposed project directly or indirectly affect the pallid sturgeon or their habitats, further consultation with that office will be necessary.

34. In order to address potential impacts to the **West Indian manatee**; in the event of water-related activities, all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with an injury to manatees. All personnel should 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 should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable and could provide useful data in the Service's on-going manatee conservation efforts.



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35. During in-water work in areas that potentially support manatees, all on-site personnel are ~~responsible for observing water-related activities for the presence of manatee(s)~~. The following actions will be administered to minimize potential impact to manatee: (1) All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the 50 foot 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 manatees. (2) If a manatee is sighted in or near the project area, all vessels associated with the project should 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 should follow routes of deep water whenever possible. (3) If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement. (4) Collisions with, injury to, or sightings of manatees should be immediately reported to the US Fish and Wildlife Service’s (USFWS) 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. Should the proposed project directly or indirectly affect the West Indian manatee or their habitats, further consultation with that office will be necessary.

36. In order to minimize potential project impacts to **bald eagles**, particularly where such impacts may constitute “disturbance,” which is prohibited by the BGEPA, the permittee shall abide by the following guidelines:<http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf>. These Guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. During any project construction, on-site personnel should be informed of the possible presence of nesting bald eagles in the vicinity of the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within 1,500 feet of the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: <http://www.fws.gov/southeast/es/baldeagle>. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. Should you need further assistance interpreting the guidelines, avoidance measures, or performing an on-line project evaluation, please contact Mrs. Patti Holland with the USFWS at (337) 291-3121.

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37. To minimize disturbance to **colonial nesting birds**, the following restrictions on activity ~~should be observed: (1) For colonies containing nesting wading birds (i.e., herons, egrets, night herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present).~~ (2) On-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season. (3) If it is necessary to perform work within 1,000 feet of a known nest site during the nesting season, a migratory bird abatement plan will need to be developed in consultation with the Service. That plan will include deterrence measures to ensure that birds do not nest in proximity to the work area during the construction period. Patti Holland with the USFWS is the Service contact for such matters and can be reached at 337-291-3121.

38. Stockpiling of materials and/or equipment on the BA-39 restoration site, the BA-48 restoration site, or any other existing wetland or ridge, whether natural or restored; is not authorized. Vehicles, equipment and personnel should only access and/or traverse the BA-39 and BA-48 sites when necessary for the construction, inspection, maintenance and removal of the physical sediment pipeline.

39. The permittee shall submit pre and post-construction photographs as well as surveying of elevations at regular intervals (e.g. every 500 feet) in the right of way (ROW) crossing the BA-39 and BA-48 marsh creation areas, the type, acreage, and extent of vegetative coverage (i.e. wetlands, open water) impacted or benefitted by project implementation, and the general condition of the soils (particularly with respect to the presence or absence of rutting). This condition would be applicable to the BA-39 site, as well as any other wetlands and ridges, whether natural or restored. Monitoring shall document initial fill elevations immediately post construction and 1 year post construction. Monitoring should document acres of open water and marsh that received fill and are 0.5 to 2.0 ft NAVD-88, and acres of water that receive some fill but remained subaqueous. Information and surveys shall be submitted and coordinated with this office, the Environmental Protection Agency (EPA), the National Marine Fisheries Service, (NMFS), as well as any other interested resource agencies (particularly those involved in the CWPPRA program), following construction completion. Be aware that follow up field site investigations may be warranted in order to determine if additional efforts may be necessary to restore areas impacted by project implementation.

40. To the greatest extent practicable, the BA-39 site should not be used as a permanent or long-term transportation corridor for vehicular access to portions of the pipeline ROW, west of the existing BA-39 restoration area.

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41. The permittee should use the least environmentally damaging practicable routes and techniques for mobilizing equipment and personnel, for construction and maintenance of the pipeline and its corridor, as well as for the eventual removal and/or replacement of the physical sediment pipeline structure. To the maximum extent practicable, the permittee shall use water access and barge storage of equipment and construction materials.

42. During construction, the width of the pipeline corridor for construction, maintenance, and removal of the sediment pipeline should be minimized to the greatest extent practicable. This condition is applicable to the BA-39 site as well as any other wetlands and ridges, whether natural or restored.

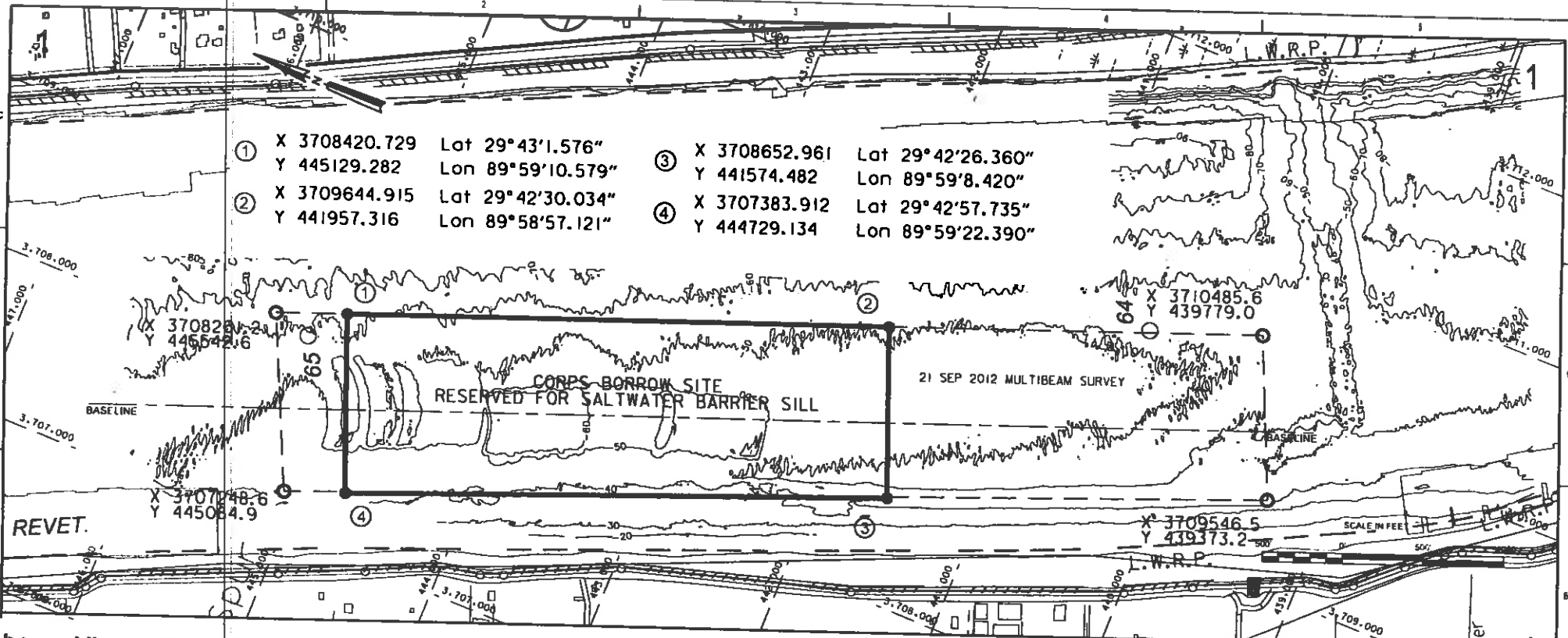
43. Mats, boards, and/or geotextile material should be used where practicable, to minimize rutting and soil compaction from vehicles and equipment. This condition is applicable to the BA-39 site as well as any other wetlands and ridges, whether natural or restored.

44. Additional fill will be placed in the pipeline ROW or grading undertaken, within the BA-39 and/or BA-48 project areas, which incur any unforeseen impacts or rutting to wetland areas, by construction activities. Remediation of adverse impacts or rutting identified should occur immediately upon cessation of construction activities. It is reasonable to allow for a full growing season to pass, prior to implementing any vegetative plantings, thereby allowing time for natural re-vegetation of any areas damaged by construction activities. However, if damaged areas do not adequately recover within one full growing season, planting of appropriate species may be necessary. If substantial remediation is needed, the permittee should coordinate with this office, the EPA, the NMFS, and any other pertinent agencies, prior to implementation of any such work, to ensure it is consistent with the original goals and intent of the BA-39 project. This condition is also applicable to remediation work on any other wetlands and ridges, whether natural or restored. Surveys and remediation methods should be repeated if and when the physical pipeline structure is removed, replaced, and/or when there is maintenance activity that has the potential to cause substantial damage to soils and/or vegetation.

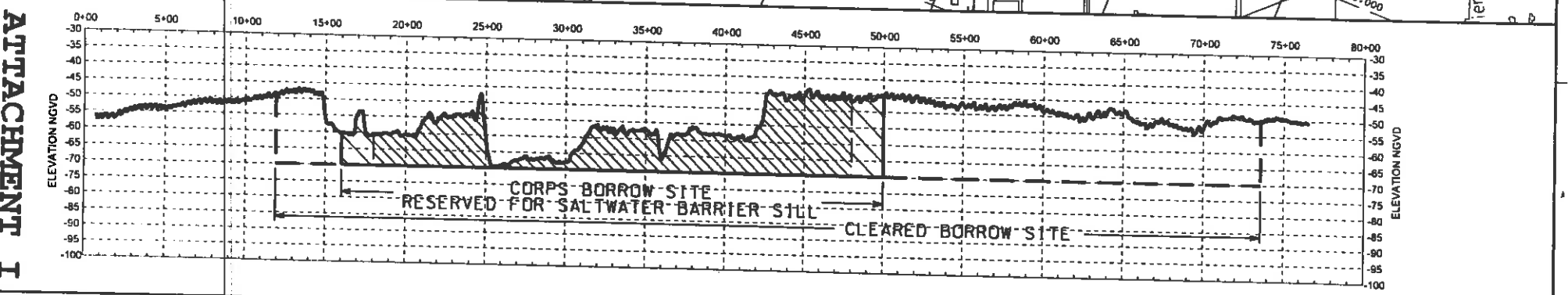
45. Prior to initiation of work within 1500 feet of the Mississippi River Levee system and/or within 300 feet of the back Hurricane Protection Levee, the permittee must acquire a **Letter of No Objection** from the USACE, Operations Manager of Completed Works. For information relevant this approval, you may contact the (Operations Manager, Mrs. Amy Powell at 504-862-2241) or (Project Manager, Mrs. Karen Clement at 504-862-2313).

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46. Pipeline information including pipeline locations, pipeline owner information and number of pipelines shown on sheet 6 of 41, titled ~~Wills Point Borrow Area Layout~~, is not accurate based on New Orleans District records. The permittee shall investigate the pipelines and ensure that all pipeline information is corrected. CEMVN has some information on these pipelines, but the information is not complete. This information can be obtained by contacting Heather Jennings (504) 862-1253. The permittee shall arrange a meeting between themselves, Heather Jennings and the pipeline owner to verify pipeline locations prior to beginning work.



- ① X 3708420.729 Lat 29°43'1.576"  
Y 445129.282 Lon 89°59'10.579"
- ② X 3709644.915 Lat 29°42'30.034"  
Y 441957.316 Lon 89°58'57.121"
- ③ X 3708652.961 Lat 29°42'26.360"  
Y 441574.482 Lon 89°59'8.420"
- ④ X 3707383.912 Lat 29°42'57.735"  
Y 444729.134 Lon 89°59'22.390"



ATTACHMENT I

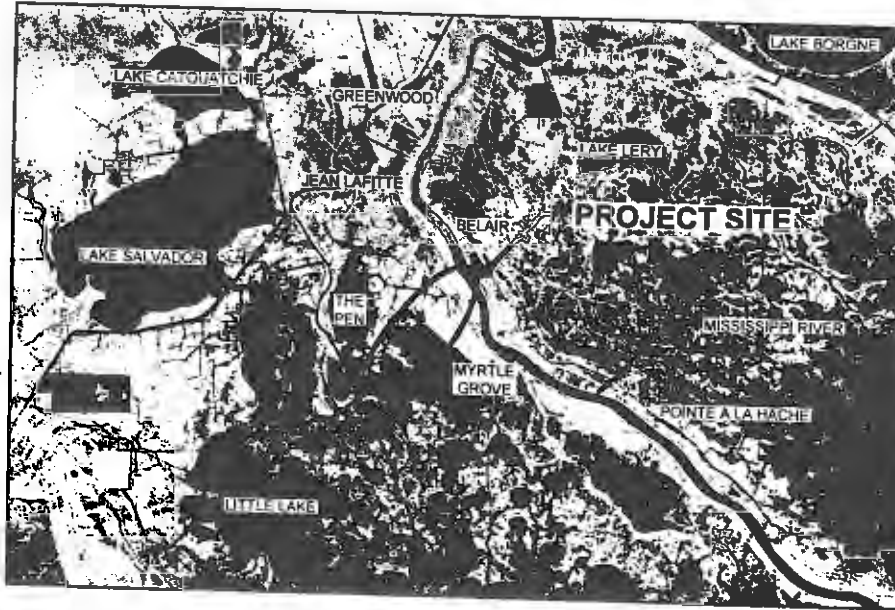
	<p>MISSISSIPPI RIVER HYDROGRAPHIC SURVEY SALTWATER SILL BORROW AREA 1 MILE 63.87 TO 65.03</p>	<p>NOTE: ALL ELEVATIONS ARE EXPRESSED IN FEET AND REF TO THE 1988 NATIONAL GEODETIC VERTICAL DATUM (NAD 83). ELEVATIONS ABOVE AND BELOW SILL ARE EXPRESSED AT 5 FT INTERVALS. PLANNING FROM AERIAL PHOTOGRAPHS PLANNED FEBRUARY 2002. THE SPACES FOR MULTIBEAM DATA ABOVE HEAD OF PARABOL ARE SHOWN AT 1/4 MILE INTERVALS. THIS SURVEY.</p>	<p>PROJECTION: LAMBERT CONFORMAL CONIC SPHEROID: GRS80 EARTH MODEL: Spheroid DATUM: NAD 83 UNIT: METERS SCALE: 1:5000</p>	<p>DATE OF SURVEY 15 NOV 2012</p>	<p>SHEET IDENTIFICATION 1</p>
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35.	TEMPORARY SHOAL WARNING SIGN DETAILS
36.	LANDSIDE BOOSTER PUMP PLAN & ELEVATIONS
37.	FLOATING BOOSTER PUMP PLAN & ELEVATIONS
38.	TEMPORARY MARINE ACCESS DOCK DETAILS
39.	NEW BRIDGE/PIPE CROSSING DETAILS (1 OF 3)
40.	NEW BRIDGE/PIPE CROSSING DETAILS (2 OF 3)
41.	NEW BRIDGE/PIPE CROSSING DETAILS (3 OF 3)

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

**MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE  
STATE PROJECT No. BA-43 EB  
JEFFERSON & PLAQUEMINES PARISHES, LOUISIANA**



**THIS DRAWING SET IS FOR PERMITTING PURPOSES ONLY AND NOT TO BE USED FOR CONSTRUCTION**

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

**MUFFATT & NICHOL**  
ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 800  
BATON ROUGE, LA 70826  
225-927-7793

**COASTAL PROTECTION & RESTORATION  
AUTHORITY**

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

TITLE SHEET

DRAWN BY YC

DESIGNED BY SA

APPROVED BY: MAURY CHATELLIER, P.E.






STATE PROJECT NUMBER: BA-43 (EB)

DATE: DECEMBER 12, 2012

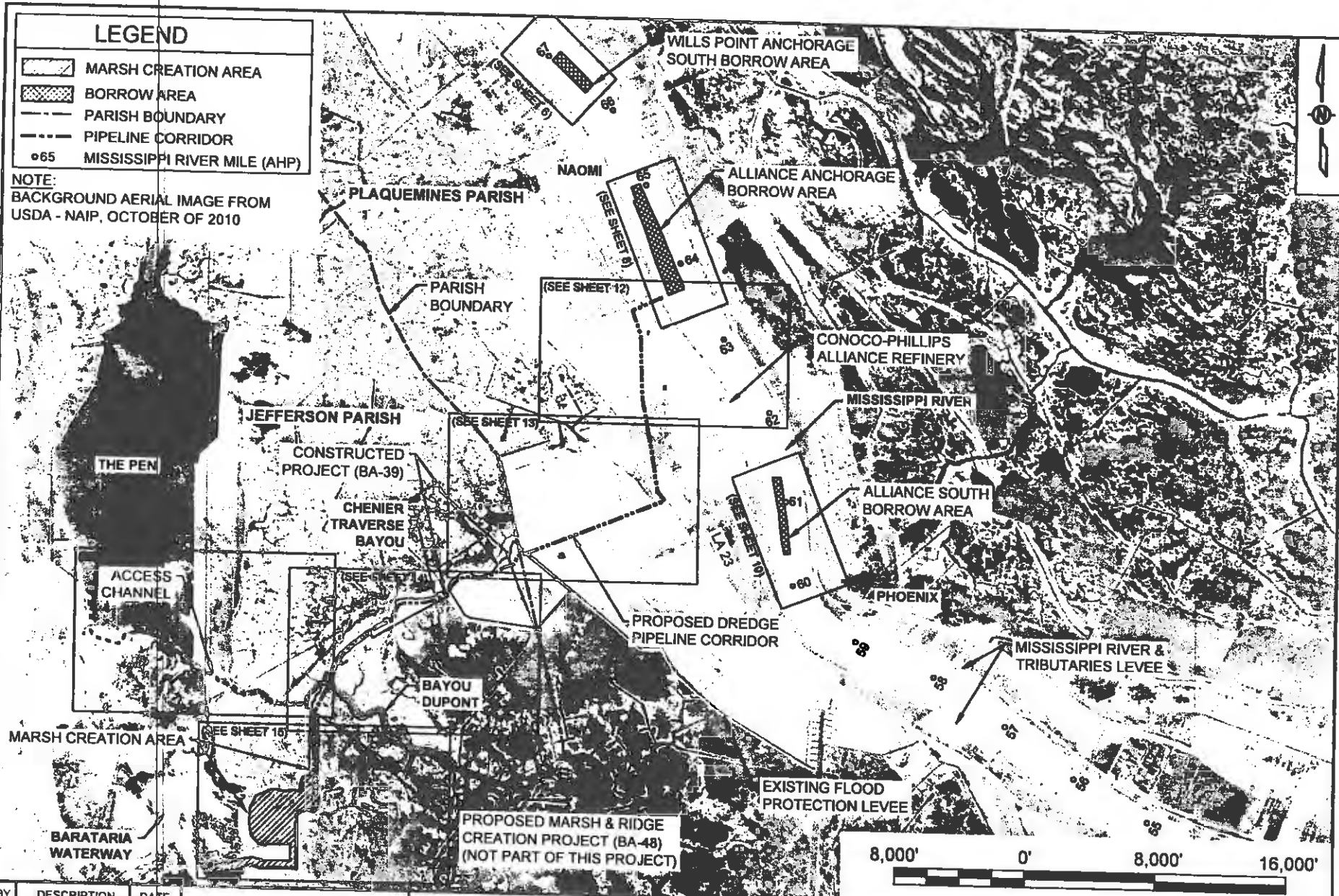
FEDERAL PROJECT NUMBER: N/A

SHEET 1 OF 41

# LEGEND

-  MARSH CREATION AREA
-  BORROW AREA
-  PARISH BOUNDARY
-  PIPELINE CORRIDOR
-  65 MISSISSIPPI RIVER MILE (AHP)

NOTE:  
BACKGROUND AERIAL IMAGE FROM  
USDA - NAIP, OCTOBER OF 2010



BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

**MOPPATT & NICHOL**  
ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 800  
BATON ROUGE, LA 70825  
225-421-7793

## COASTAL PROTECTION & RESTORATION AUTHORITY

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

PROJECT LAYOUT

DRAWN BY: YC

DESIGNED BY: SA

APPROVED BY: MAURY CHATELLIER, P.E.

STATE PROJECT NUMBER: BA-43 (EB)

DATE: DECEMBER 12, 2012

FEDERAL PROJECT NUMBER: N/A


SHEET 2 OF 41

**GENERAL NOTES:**

1. BACKGROUND AERIAL IMAGES FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER OF 2010.
2. COORDINATES ARE NAD83, LOUISIANA STATE PLANE, SOUTHERN ZONE, U.S. SURVEY FEET.
3. ALL ELEVATIONS ARE IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), U.S. SURVEY FEET.
4. ALL RIVER DATUMS SHOWN BASED ON HISTORIC DATA FOR MISSISSIPPI RIVER AT ALLIANCE (01390) RIVER MILE 62.5. RECORDS AVAILABLE FROM APRIL 2, 1977 TO DATE.
5. THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 50' OF ANY PIPELINE IN THE MISSISSIPPI RIVER OR WITHIN 50' OF ANY OTHER PIPELINE EXCEPT FOR NAOMI SIPHON PIPES.
6. NO EXCAVATION SHALL BE PERMITTED WITHIN 25 FEET OF THE NAOMI SIPHON PIPES. THE EDGE OF THE DREDGE SLURRY PIPELINE SHALL BE PLACED A MINIMUM OF 25 FEET FROM THE EDGE OF THE NAOMI SIPHON PIPES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE AND UTILITY OPERATORS AT THE TIME OF CONSTRUCTION. ALL PIPELINES AND UNDERGROUND UTILITIES SHALL BE FIELD LOCATED AND MARKED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE AND UTILITY OPERATORS 72 HOURS PRIOR TO ANY EXCAVATION.
9. NO CONSTRUCTION EQUIPMENT OR ACTIVITIES MAY OPERATE, TRANSIT, STAGE, OR STORE OUTSIDE OF THE CONSTRUCTION LIMITS.
10. THIS DRAWING SET IS FOR PERMITTING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.
11. ESTIMATED RANGE OF FULLY-LOADED DRAFTS FOR VESSELS TO BE USED DURING CONSTRUCTION:
  - a. 4,000 HP TUGS ..... 15-20 FT
  - b. 2,000 HP TUGS ..... 10-14 FT
  - c. WORK BOATS, TENDERS ..... 6-8 FT
  - d. CREWBOATS ..... 2-4 FT
  - e. BOOSTER PUMP BARGES, WORK BARGES ..... 4-6 FT
  - f. SMALL BARGE-MOUNTED CLAMSHELL OR EXCAVATOR ..... 4-8 FT
  - g. LARGE HYDRAULIC DREDGE ..... 10 FT

**DREDGING NOTES:**

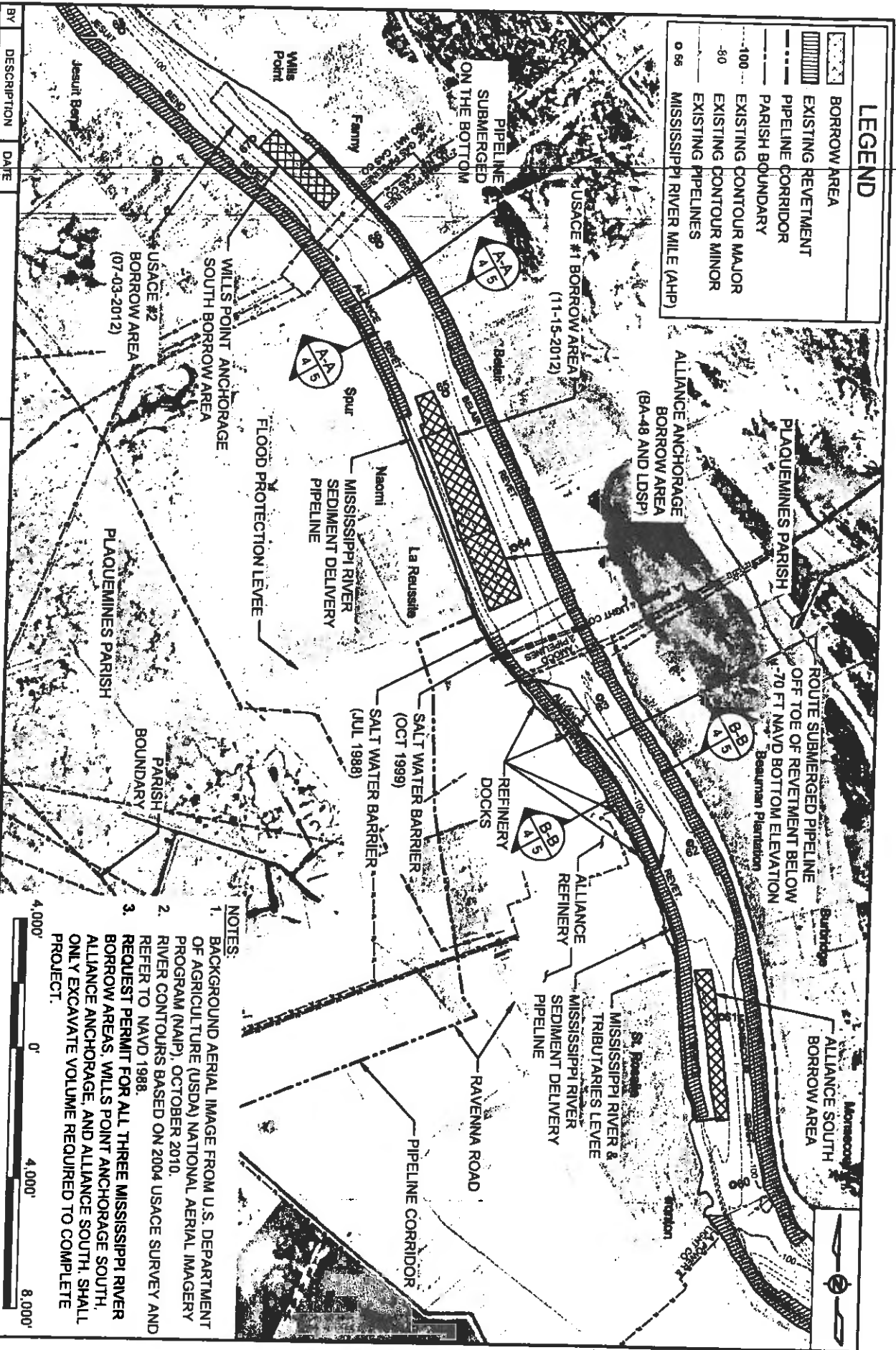
1. THE CONTRACTOR WILL BE REQUIRED TO ANCHOR WITHIN THE DREDGE ANCHOR LIMITS SHOWN IN SHEETS 6, 8 AND 10.
2. DREDGE ANCHOR LIMITS SHALL BE MARKED WITH BUOYS AS SHOWN IN SHEETS 6, 8 AND 10.
3. DREDGING BEYOND THE BORROW AREA LIMITS SHOWN WILL BE NOT ALLOWED.
4. DREDGING WILL BE ALLOWED TO A MAXIMUM DEPTH OF -90 FT NAVD88.
5. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DAILY COMMUNICATION PLAN TO THE OWNER, THE USAGE OPERATIONS DIVISION, AND MNSA DELINEATING THE LOCATION OF THE DREDGE, ATTENDANT PLANT, ANCHOR BUOYS, AND FLOATING PIPELINE AS PER THE OWNER SPECIFICATIONS.

BY	DESCRIPTION	DATE	 ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-927-7103		<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE		GENERAL & DREDGING NOTES	
SA	REVISION 5	12/17/12					STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
SA	REVISION 4	08/22/12					FEDERAL PROJECT NUMBER: N/A		SHEET 3 OF 41	
SA	REVISION 3	03/08/12								
DRAWN BY: YC			DESIGNED BY SA		APPROVED BY: MAURV CHATELLIER, P.E.					



**LEGEND**

	BORROW AREA
	EXISTING RETEWMET
	PIPELINE CORRIDOR
	PARISH BOUNDARY
	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	EXISTING PIPELINES
	MISSISSIPPI RIVER MILE (AHP)



**NOTES:**

1. BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER 2010.
2. RIVER CONTOURS BASED ON 2004 USACE SURVEY AND REFER TO NAVD 1988.
3. REQUEST PERMIT FOR ALL THREE MISSISSIPPI RIVER BORROW AREAS, WILLS POINT ANCHORAGE SOUTH, ALLIANCE ANCHORAGE, AND ALLIANCE SOUTH, SHALL ONLY EXCAVATE VOLUME REQUIRED TO COMPLETE PROJECT.



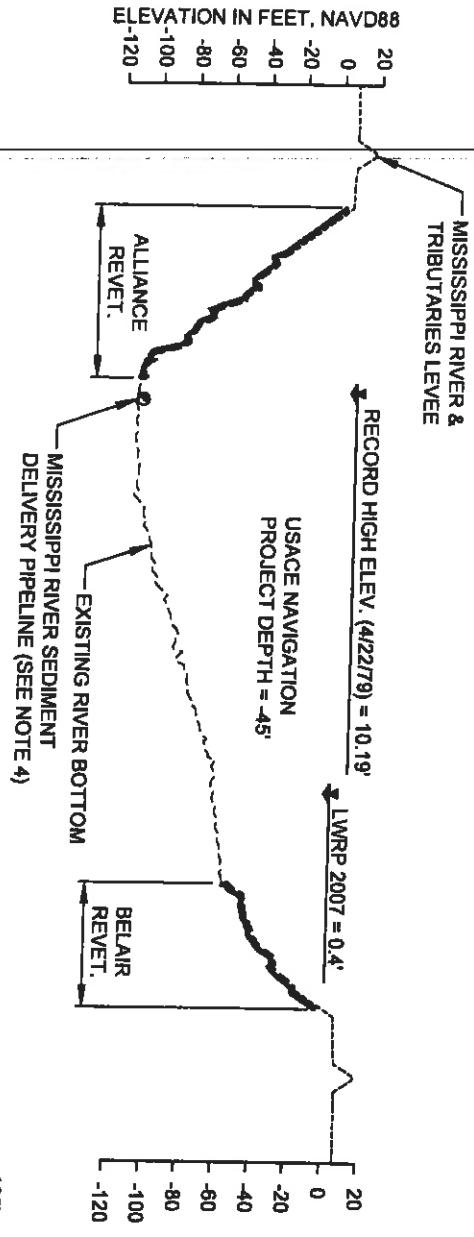
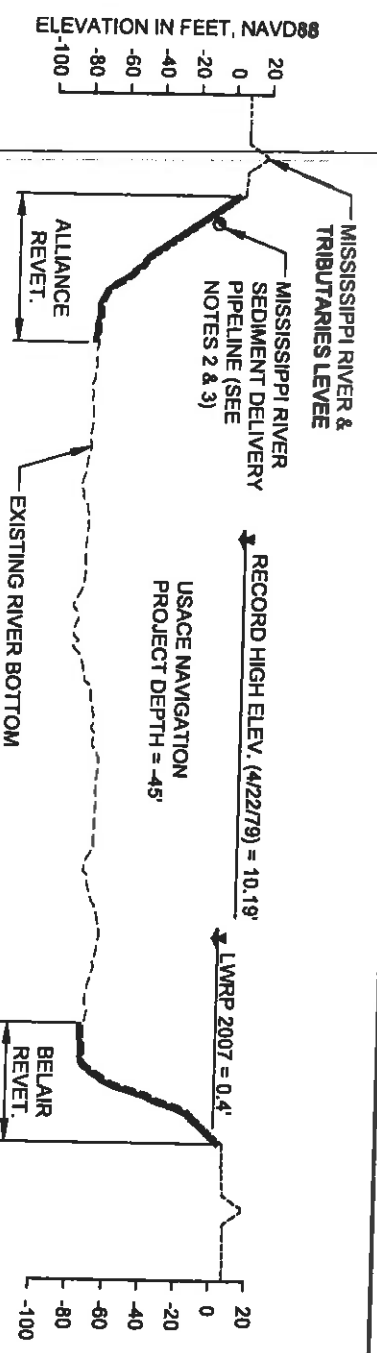
BY	DESCRIPTION	DATE
SA	REVISION 5	12/15/12
SA	REVISION 4	08/21/12
SA	REVISION 3	03/09/12

**ONE AMERICAN PLACE**  
 301 MAIN STREET, SUITE 900  
 BATON ROUGE, LA 70825  
 225-877-7193

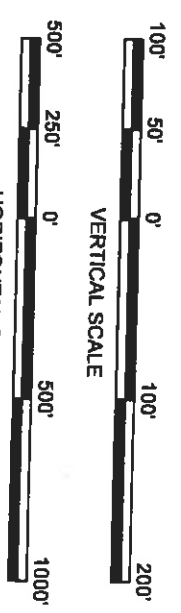
**COASTAL PROTECTION & RESTORATION AUTHORITY**  
 450 LAUREL STREET  
 BATON ROUGE, LOUISIANA 70801

DESIGNED BY: SA  
 APPROVED BY: MAURY CHATELIER, P.E.

STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
FEDERAL PROJECT NUMBER: N/A	SHEET 4 OF 41




- NOTES:
1. RIVER BOTTOM PROFILES BASED ON OSI SURVEY DATED AUGUST 17, 2011.
  2. MISSISSIPPI RIVER SEDIMENT DELIVERY PIPELINE TO BE ROUTED ALONG RIVER BANK AT AN OFFSET ± 30 FEET FROM THE LWRP.
  3. SEDIMENT DELIVERY PIPELINE MAY BE SUBMERGED OR FLOATING.
  4. ROUTE SUBMERGED PIPELINE OFF TOE OF REVELTMENT BELOW -70 FEET NAVD BOTTOM ELEVATION.



**(B-B)**  
4  
TYPICAL MISSISSIPPI RIVER PIPELINE SECTION  
RIVER MILE 62.5

**(A-A)**  
4  
TYPICAL MISSISSIPPI RIVER PIPELINE SECTION  
RIVER MILE 65.6

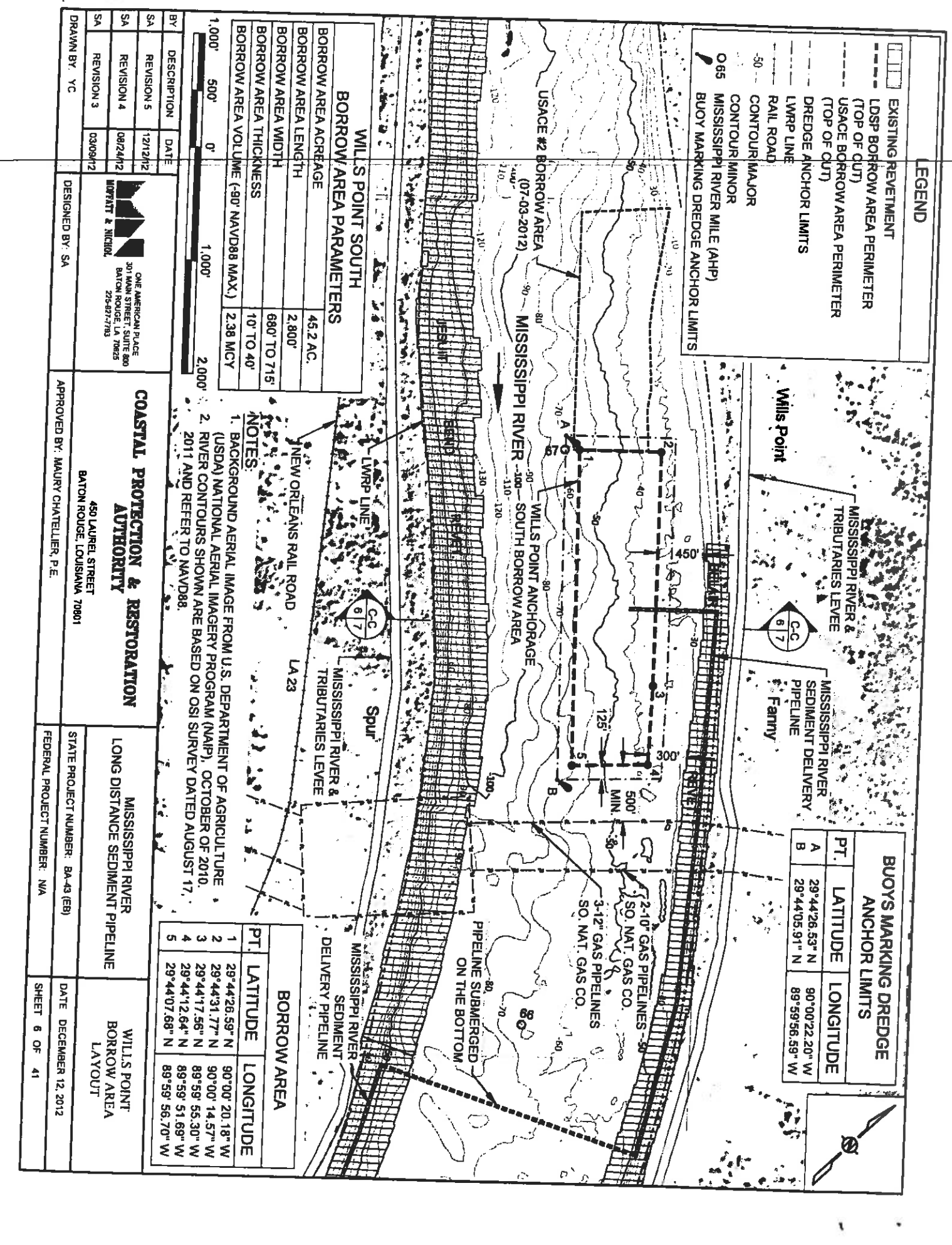
BY	DESCRIPTION	DATE	 ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70828 225-927-7193		<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
SA	REVISION 5	12/21/12						
SA	REVISION 4	08/24/12						
SA	REVISION 3	03/09/12						
DRAWN BY: YC			DESIGNED BY: SA		APPROVED BY: MAURY CHATELLIER, P.E.		FEDERAL PROJECT NUMBER: N/A	SHEET 5 OF 41

**LEGEND**

- EXISTING REVEITEMENT
- LDSP BORROW AREA PERIMETER (TOP OF CUT)
- USACE BORROW AREA PERIMETER (TOP OF CUT)
- DREDGE ANCHOR LIMITS
- LWRP LINE
- RAIL ROAD
- CONTOUR MAJOR
- CONTOUR MINOR
- MISSISSIPPI RIVER MILE (AHP)
- BUOY MARKING DREDGE ANCHOR LIMITS

**BUOYS MARKING DREDGE ANCHOR LIMITS**

PT.	LATITUDE	LONGITUDE
A	29°44'26.53" N	90°00'22.20" W
B	29°44'05.91" N	89°59'56.59" W



**WILLIS POINT SOUTH BORROW AREA PARAMETERS**

BORROW AREA ACREAGE	452 AC.
BORROW AREA LENGTH	2,800'
BORROW AREA WIDTH	680' TO 715'
BORROW AREA THICKNESS	10' TO 40'
BORROW AREA VOLUME (-90' NAVD88 MAX)	2.38 MCY

- NOTES:**
- BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER OF 2010.
  - RIVER CONTOURS SHOWN ARE BASED ON OSI SURVEY DATED AUGUST 17, 2011 AND REFER TO NAVD88.

**BORROW AREA**

PT.	LATITUDE	LONGITUDE
1	29°44'26.53" N	90°00'20.18" W
2	29°44'31.77" N	90°00'14.57" W
3	29°44'17.56" N	89°59'55.30" W
4	29°44'12.64" N	89°59'51.69" W
5	29°44'07.68" N	89°59'56.70" W

**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
BATON ROUGE, LOUISIANA, 70801

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

WILLIS POINT  
BORROW AREA  
LAYOUT

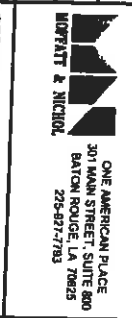
BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

DESIGNED BY: SA

APPROVED BY: MAURY CHATELIER, P.E.

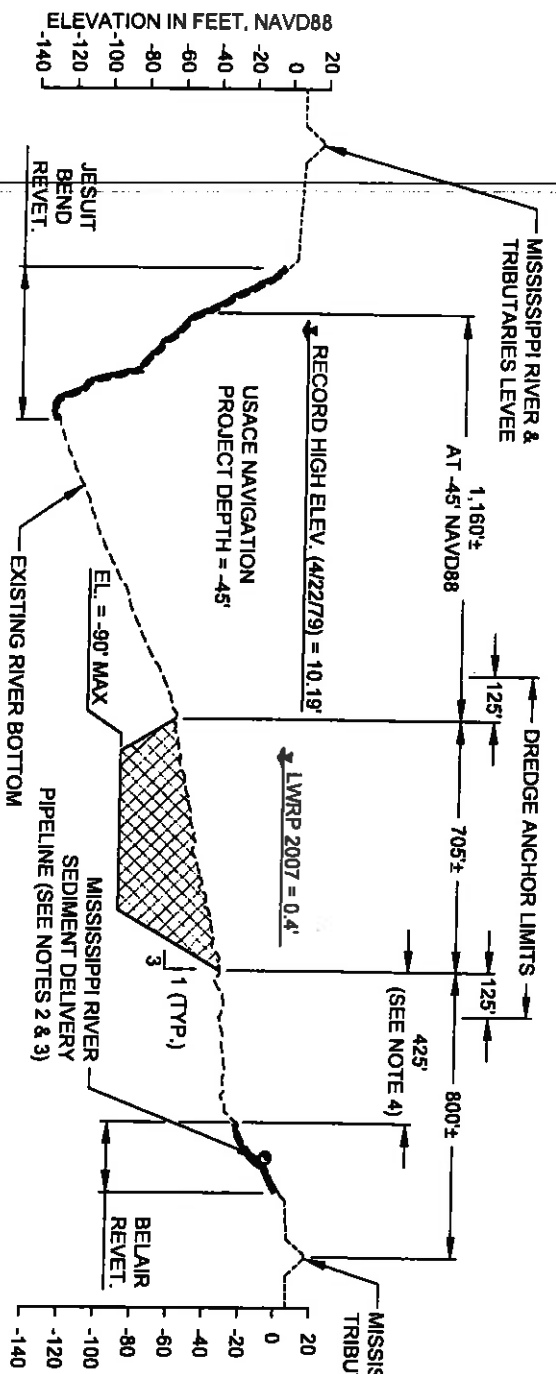
STATE PROJECT NUMBER: BA-43 (EB)  
FEDERAL PROJECT NUMBER: N/A

DATE: DECEMBER 12, 2012  
SHEET 6 OF 41



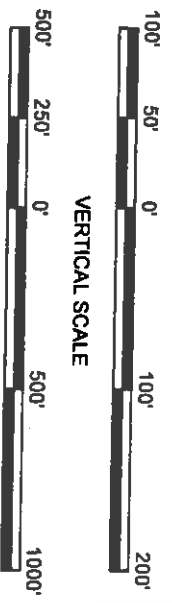
ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 800  
BATON ROUGE, LA 70825  
225-927-7783

LEGEND	
	BORROW AREA
	AUGUST 2011 SURVEY
	APPROX. EXISTING GRADE
	EXISTING REVETMENT
	DESIGN
	SEDIMENT DELIVERY PIPELINE



**WILLS POINT ANCHORAGE SOUTH**  
RIVER MILE 66.7

- NOTES:
- RIVER BOTTOM PROFILE BASED ON OSI SURVEY DATED AUGUST 17, 2011.
  - MISSISSIPPI RIVER SEDIMENT DELIVERY PIPELINE TO BE ROUTED ALONG RIVER BANK AT AN OFFSET ± 30 FEET FROM THE LWRP.
  - SEDIMENT DELIVERY PIPELINE MAY BE SUBMERGED OR FLOATING.
  - MINIMUM DISTANCE BETWEEN TOP OF CUT AND TOE OF BELAIR REVETMENT VARIES FROM 300 TO 450 FEET.



HORIZONTAL SCALE

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/29/12

DESIGNED BY: SA

APPROVED BY: MAURY CHATELLIER, P.E.

COASTAL PROTECTION & RESTORATION AUTHORITY

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE

STATE PROJECT NUMBER: BA-43 (EB)

FEDERAL PROJECT NUMBER: N/A

WILLS POINT ANCHORAGE SOUTH BORROW AREA TYPICAL SECTION

DATE: DECEMBER 12, 2012

SHEET 7 OF 41

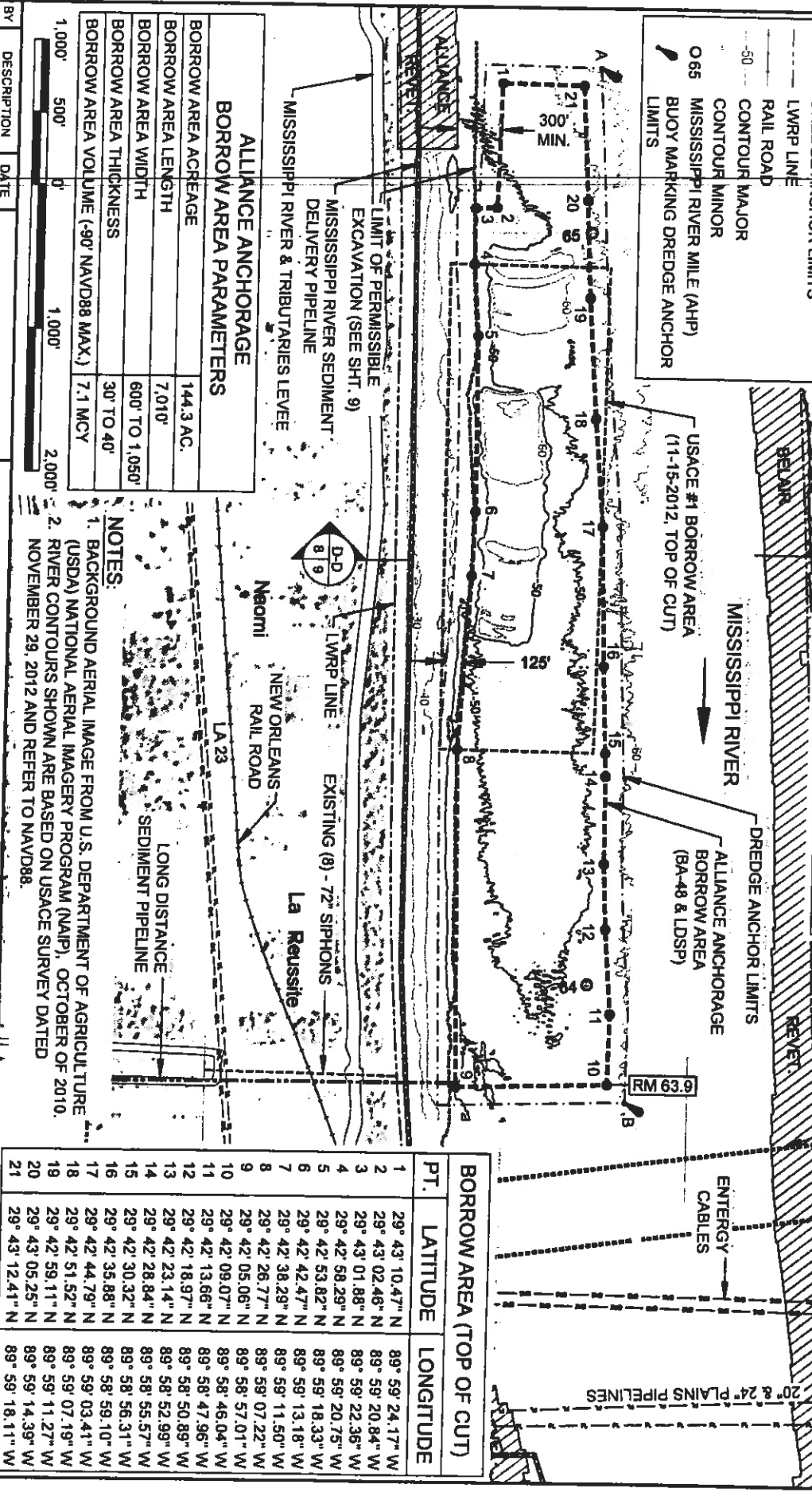
DRAWN BY: YC	DESIGNED BY: SA	APPROVED BY: MAURY CHATELLIER, P.E.	STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
			FEDERAL PROJECT NUMBER: N/A	SHEET 7 OF 41

LEGEND	
[Symbol]	EXISTING REVEMENT
[Symbol]	LDSP BORROW AREA PERIMETER (TOP OF CUT)
[Symbol]	USAGE BORROW AREA PERIMETER (TOP OF CUT)
[Symbol]	DREDGE ANCHOR LIMITS
[Symbol]	LWRP LINE
[Symbol]	RAIL ROAD
[Symbol]	CONTOUR MAJOR
[Symbol]	CONTOUR MINOR
[Symbol]	MISSISSIPPI RIVER MILE (AHP)
[Symbol]	BUOY MARKING DREDGE ANCHOR LIMITS

BUOYS MARKING DREDGE ANCHOR LIMITS		
PT.	LATITUDE	LONGITUDE
A	29°43'13.97" N	89°59'17.37" W
B	29°43'08.38" N	89°58'44.24" W

SALT WATER BARRIER C.L. (OCT 1989)		
PT.	LATITUDE	LONGITUDE
A	29°43'13.97" N	89°59'17.37" W
B	29°43'08.38" N	89°58'44.24" W

SALT WATER BARRIER C.L. (JUL 1988)		
PT.	LATITUDE	LONGITUDE
A	29°43'13.97" N	89°59'17.37" W
B	29°43'08.38" N	89°58'44.24" W

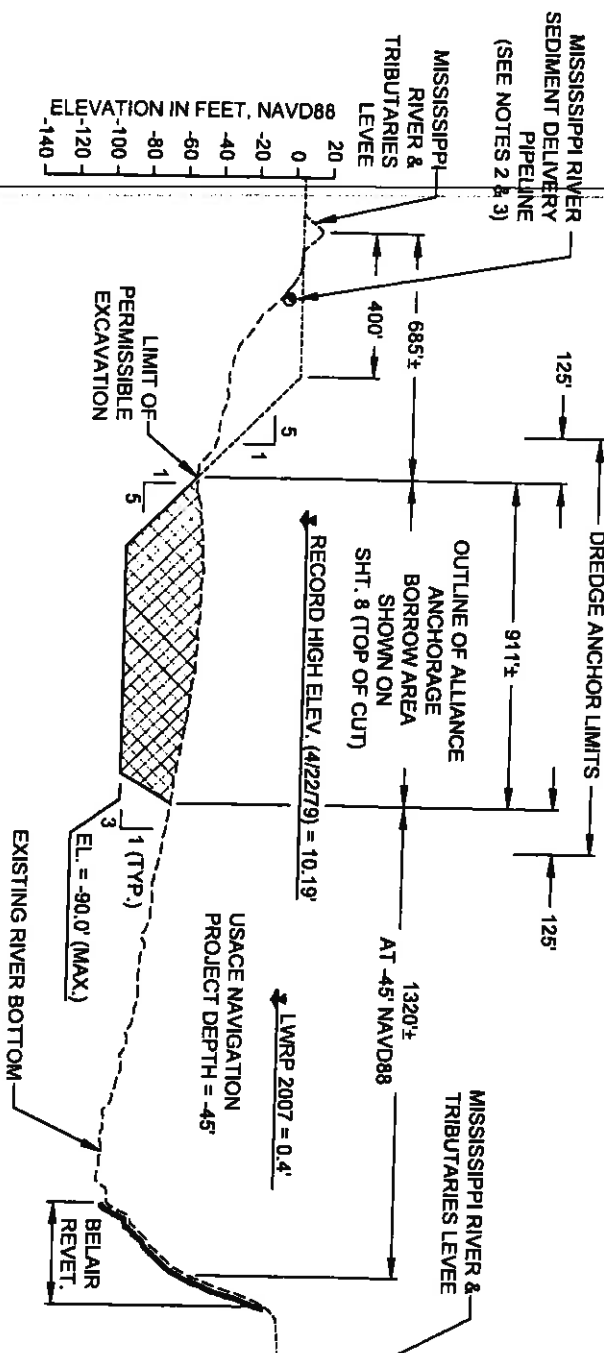


BORROW AREA PARAMETERS	
BORROW AREA ACREAGE	144.3 AC.
BORROW AREA LENGTH	7,010'
BORROW AREA WIDTH	600' TO 1,050'
BORROW AREA THICKNESS	30' TO 40'
BORROW AREA VOLUME (-90' NAVD88 MAX.)	7.1 MCY

- NOTES:**
1. BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER OF 2010.
  2. RIVER CONTOURS SHOWN ARE BASED ON USAGE SURVEY DATED NOVEMBER 29, 2012 AND REFER TO NAVD88.

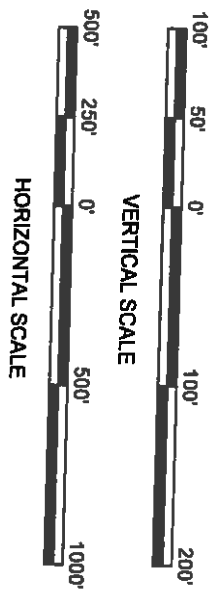
BORROW AREA (TOP OF CUT)		
PT.	LATITUDE	LONGITUDE
1	29° 43' 10.47" N	89° 59' 24.17" W
2	29° 43' 02.46" N	89° 59' 20.84" W
3	29° 43' 01.88" N	89° 59' 22.36" W
4	29° 42' 58.29" N	89° 59' 20.75" W
5	29° 42' 53.82" N	89° 59' 18.33" W
6	29° 42' 42.47" N	89° 59' 13.18" W
7	29° 42' 38.29" N	89° 59' 11.50" W
8	29° 42' 26.77" N	89° 59' 07.22" W
9	29° 42' 05.06" N	89° 58' 57.01" W
10	29° 42' 09.07" N	89° 58' 46.04" W
11	29° 42' 13.66" N	89° 58' 47.96" W
12	29° 42' 18.97" N	89° 58' 50.89" W
13	29° 42' 23.14" N	89° 58' 52.99" W
14	29° 42' 28.84" N	89° 58' 55.57" W
15	29° 42' 30.32" N	89° 58' 56.31" W
16	29° 42' 35.88" N	89° 58' 59.10" W
17	29° 42' 44.79" N	89° 59' 03.41" W
18	29° 42' 51.52" N	89° 59' 07.19" W
19	29° 42' 58.11" N	89° 59' 11.27" W
20	29° 43' 05.25" N	89° 59' 14.39" W
21	29° 43' 12.41" N	89° 59' 18.11" W

BY	DESCRIPTION	DATE		<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA, 70801	MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	ALLIANCE ANCHORAGE BORROW AREA LAYOUT
SA	REVISION 5	12/12/12				
SA	REVISION 4	08/24/12				
SA	REVISION 3	03/09/12				
DRAWN BY YC			DESIGNED BY SA	APPROVED BY: MAURY CHATELLIER, P.E.	STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
					FEDERAL PROJECT NUMBER: N/A	SHEET 8 OF 41



LEGEND	
	LDSP BORROW AREA
	AUGUST 2011 SURVEY
	APPROX. EXISTING GRADE
	EXISTING REVELTMENT
	DESIGN
	SEDIMENT DELIVERY PIPELINE

**D-D**  
8  
ALLIANCE ANCHORAGE BORROW AREA  
RIVER MILE 64.3



- NOTES:**
1. RIVER BOTTOM PROFILE BASED ON OSI SURVEY DATED AUGUST 17, 2011.
  2. MISSISSIPPI RIVER SEDIMENT DELIVERY PIPELINE TO BE ROUTED ALONG RIVER BANK AT AN OFFSET ± 30 FEET FROM THE LWRP.
  3. SEDIMENT DELIVERY PIPELINE MAY BE SUBMERGED OR FLOATING.
  4. MINIMUM DISTANCE BETWEEN TOP OF CUT AND TOE OF ALLIANCE REVELTMENT IS 300 FEET.

BY	DESCRIPTION	DATE	DESIGNED BY: SA		APPROVED BY: MAURY CHATELLER, P.E.		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
SA	REVISION 5	12/21/12	DESIGNED BY: SA		APPROVED BY: MAURY CHATELLER, P.E.		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
SA	REVISION 4	08/24/12	DESIGNED BY: SA		APPROVED BY: MAURY CHATELLER, P.E.		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
SA	REVISION 3	03/09/12	DESIGNED BY: SA		APPROVED BY: MAURY CHATELLER, P.E.		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
DRAWN BY: YC			DESIGNED BY: SA		APPROVED BY: MAURY CHATELLER, P.E.		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	

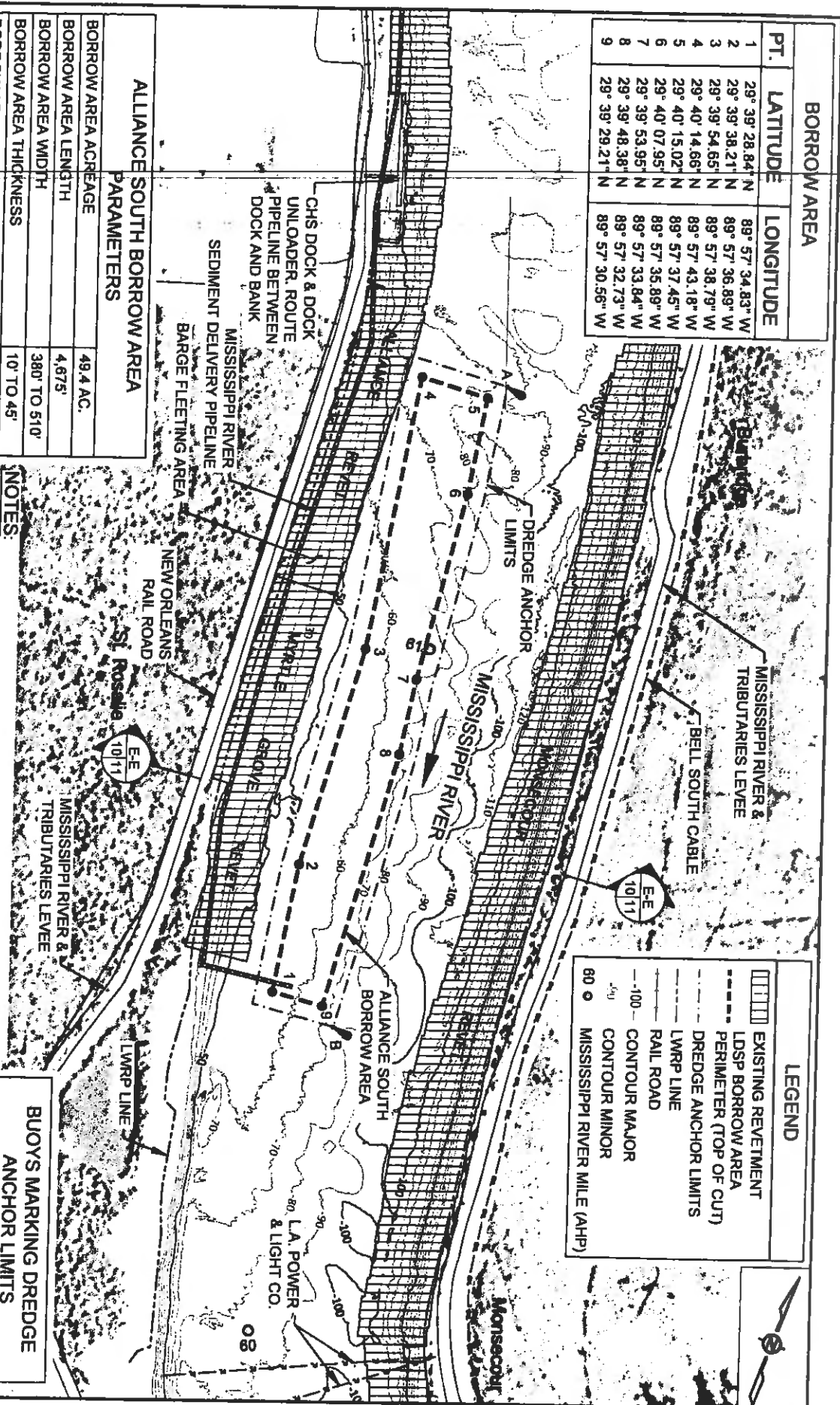


**COASTAL PROTECTION & RESTORATION AUTHORITY**  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

ALLIANCE ANCHORAGE  
BORROW AREA  
TYPICAL SECTION

BORROW AREA		
PT.	LATITUDE	LONGITUDE
1	29° 39' 28.84" N	89° 57' 34.83" W
2	29° 39' 38.21" N	89° 57' 36.89" W
3	29° 39' 54.65" N	89° 57' 38.79" W
4	29° 40' 14.66" N	89° 57' 43.18" W
5	29° 40' 15.02" N	89° 57' 37.45" W
6	29° 40' 07.95" N	89° 57' 35.89" W
7	29° 39' 53.95" N	89° 57' 33.84" W
8	29° 39' 48.38" N	89° 57' 32.73" W
9	29° 39' 28.21" N	89° 57' 30.56" W



**ALLIANCE SOUTH BORROW AREA PARAMETERS**

BORROW AREA ACREAGE	49.4 AC.
BORROW AREA LENGTH	4,675'
BORROW AREA WIDTH	380' TO 510'
BORROW AREA THICKNESS	10' TO 45'
BORROW AREA VOL. (90° NAVD88 MAX.)	1.7 MCY

- NOTES:**
1. BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER OF 2010.
  2. RIVER CONTOURS SHOWN ARE BASED ON OSI SURVEY DATED AUGUST 17, 2011 AND REFER TO NAVD88.

BUOYS MARKING DREDGE ANCHOR LIMITS		
PT.	LATITUDE	LONGITUDE
A	29°40'16.33" N	89°57'36.29" W
B	29°39'28.10" N	89°57'29.01" W

**LEGEND**

- EXISTING REVEMENT
- LDSP BORROW AREA PERIMETER (TOP OF CUT)
- DREDGE ANCHOR LIMITS
- LWRP LINE
- RAIL ROAD
- CONTOUR MAJOR
- CONTOUR MINOR
- MISSISSIPPI RIVER MILE (AHP)

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12
SA	DESIGNED BY: SA	



**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801







MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

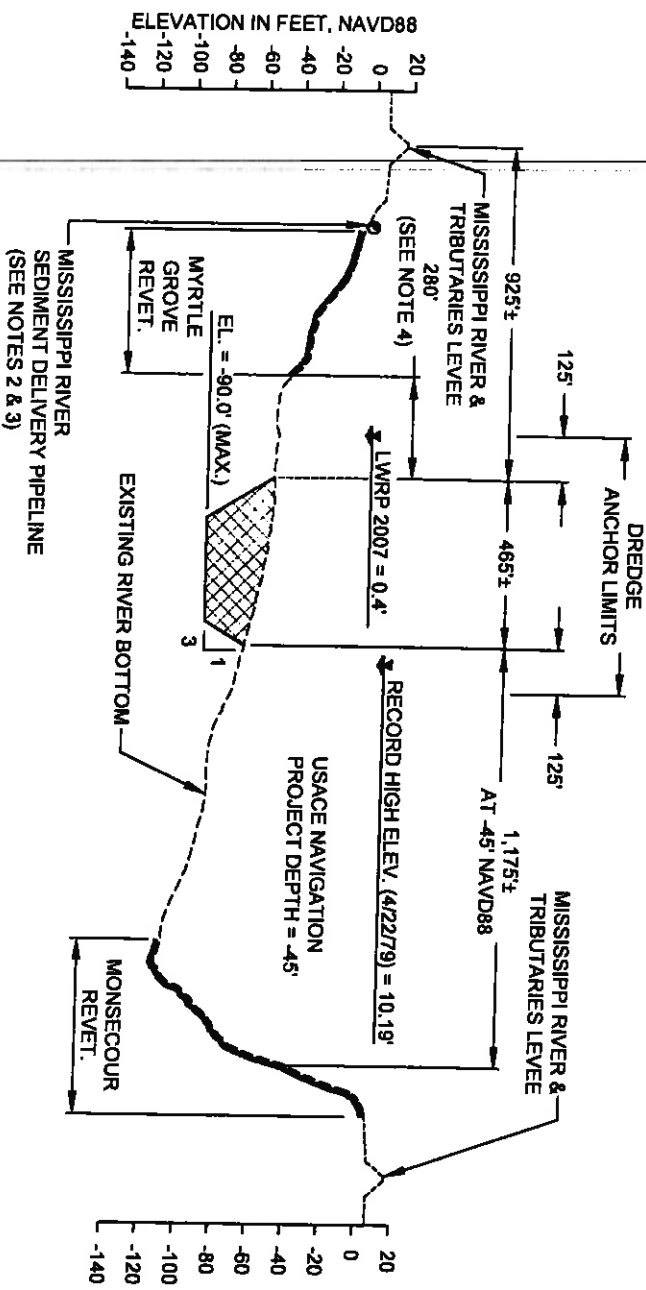
ALLIANCE SOUTH  
BORROW AREA  
LAYOUT

APPROVED BY: MAURY CHATELLIER, P.E.

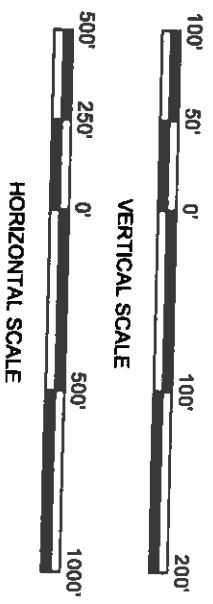
STATE PROJECT NUMBER: BA-43 (EB)  
FEDERAL PROJECT NUMBER: N/A

DATE: DECEMBER 12, 2012  
SHEET 10 OF 41

LEGEND	
	BORROW AREA
	AUGUST 2011 SURVEY
	APPROX. EXISTING GRADE
	EXISTING REVETMENT
	DESIGN
	SEDIMENT DELIVERY PIPELINE




**ALLIANCE SOUTH BORROW AREA**  
 RIVER MILE 60.7



- NOTES:
1. RIVER BOTTOM PROFILE BASED ON OSI SURVEY DATED AUGUST 17, 2011.
  2. MISSISSIPPI RIVER SEDIMENT DELIVERY PIPELINE TO BE ROUTED ALONG RIVER BANK AT AN OFFSET ± 30 FEET FROM THE LWRP.
  3. SEDIMENT DELIVERY PIPELINE MAY BE SUBMERGED OR FLOATING.
  4. MINIMUM DISTANCE BETWEEN TOP OF CUT AND TOE OF MYRTLE GROVE REVETMENT VARIES FROM 110 TO 340 FEET.

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12



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

MISSISSIPPI RIVER  
 LONG DISTANCE SEDIMENT PIPELINE

ALLIANCE SOUTH  
 BORROW AREA  
 TYPICAL SECTION








DESIGNED BY: SA  
 APPROVED BY: MAURY CHATELLIER, P.E.

STATE PROJECT NUMBER: BA-43 (EB)  
 FEDERAL PROJECT NUMBER: N/A

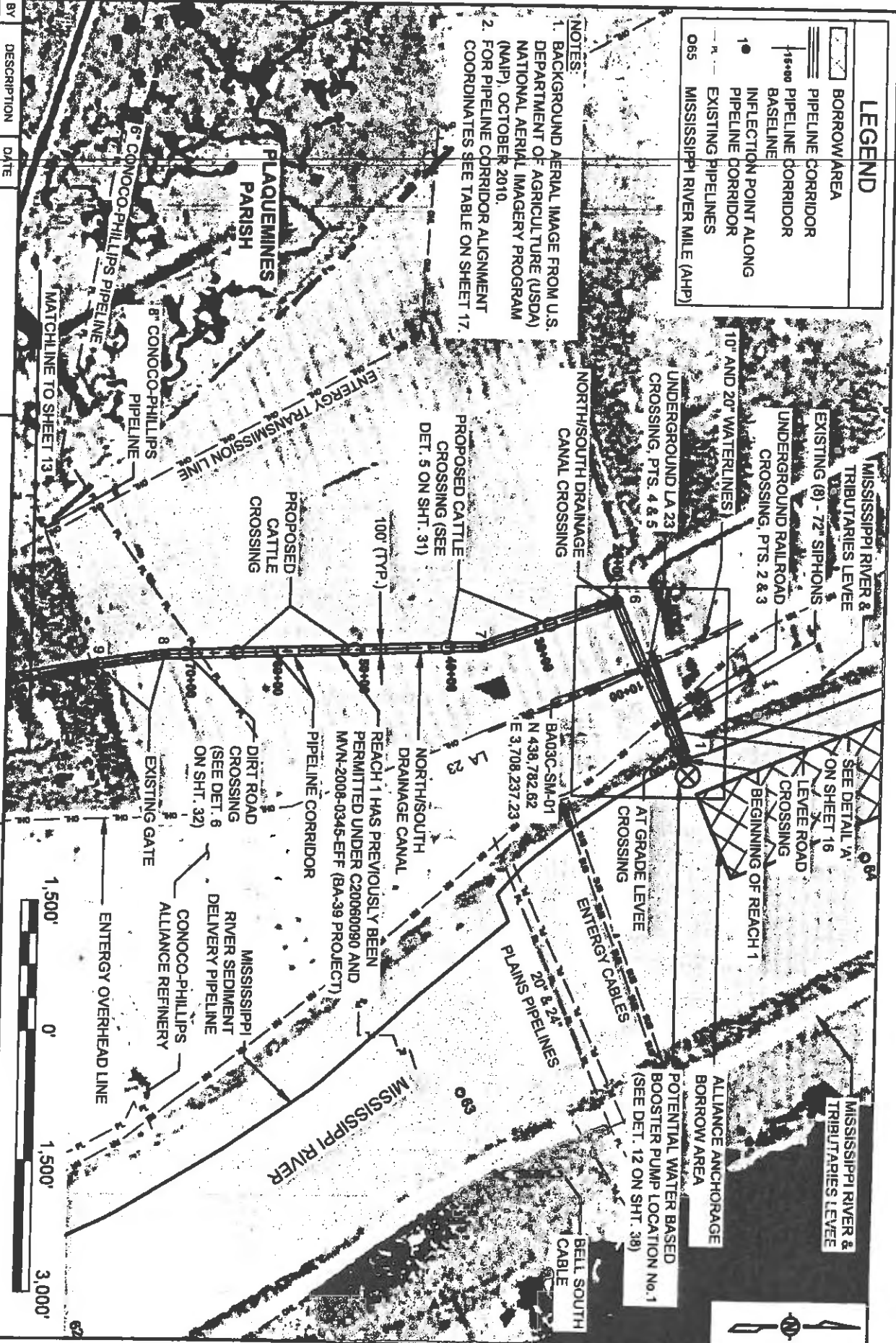
DATE: DECEMBER 12, 2012  
 SHEET 11 OF 41



**LEGEND**

-  BORROW AREA
-  PIPELINE CORRIDOR
-  PIPELINE CORRIDOR
-  BASELINE
-  INFLECTION POINT ALONG PIPELINE CORRIDOR
-  EXISTING PIPELINES
-  065 MISSISSIPPI RIVER MILE (AHP)

**NOTES:**  
 1. BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER 2010.  
 2. FOR PIPELINE CORRIDOR ALIGNMENT COORDINATES SEE TABLE ON SHEET 17.



BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12



ONE AMERICAN PLACE  
 301 MAIN STREET, SUITE 800  
 BATON ROUGE, LA 70825  
 225-92-7178

**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
 BATON ROUGE, LOUISIANA 70801

DESIGNED BY: SA  
 APPROVED BY: MAURY CHATELIER, P.E.

MISSISSIPPI RIVER  
 LONG DISTANCE SEDIMENT PIPELINE

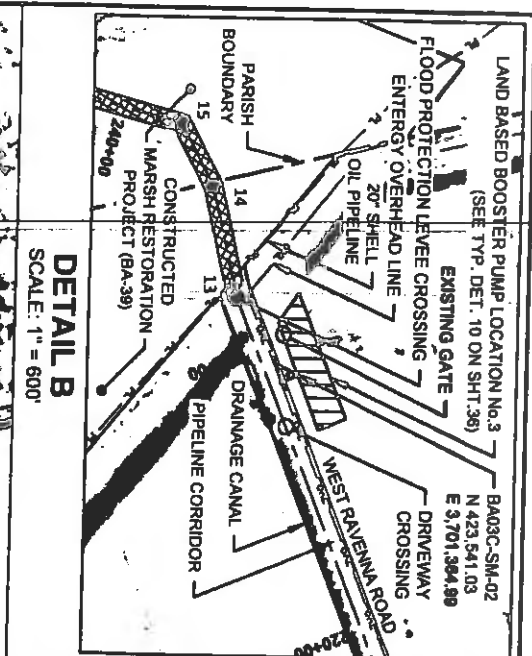
PIPELINE CORRIDOR  
 LAYOUT (1 OF 4)

STATE PROJECT NUMBER: BA-43 (E9)

DATE: DECEMBER 12, 2012

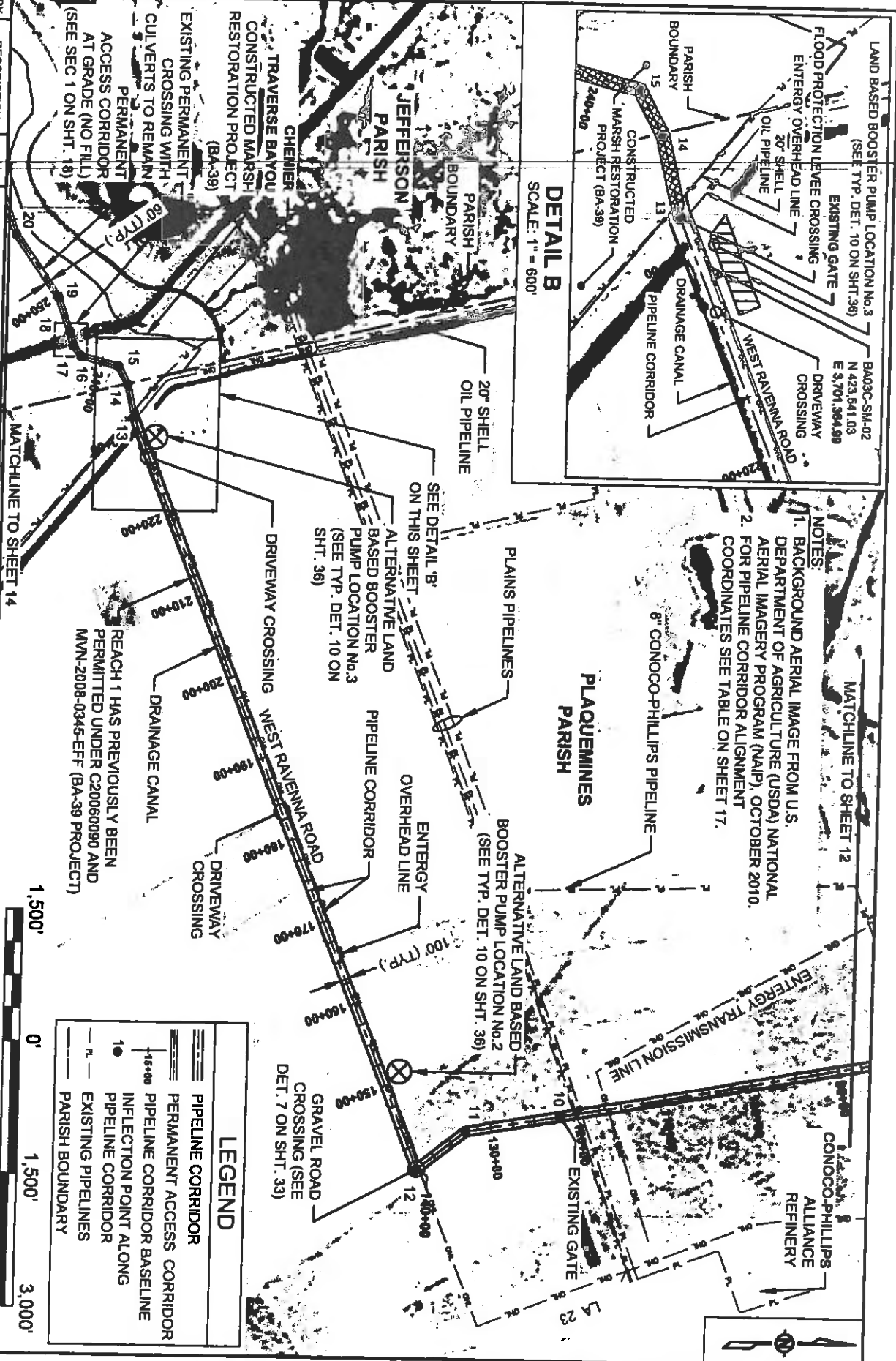
FEDERAL PROJECT NUMBER: N/A

SHEET 12 OF 41



**DETAIL B**  
SCALE: 1" = 600'

- NOTES:**
1. BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER 2010.
  2. FOR PIPELINE CORRIDOR ALIGNMENT COORDINATES SEE TABLE ON SHEET 17.



**LEGEND**

	PIPELINE CORRIDOR
	PERMANENT ACCESS CORRIDOR
	PIPELINE CORRIDOR BASELINE
	INFLECTION POINT ALONG PIPELINE CORRIDOR
	EXISTING PIPELINES
	PARISH BOUNDARY



BY	DESCRIPTION	DATE
SA	REVISION 5	12/21/12
SA	REVISION 4	08/22/12
SA	REVISION 3	03/08/12

DRAWN BY YC

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

DESIGNED BY: SA










**MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE**

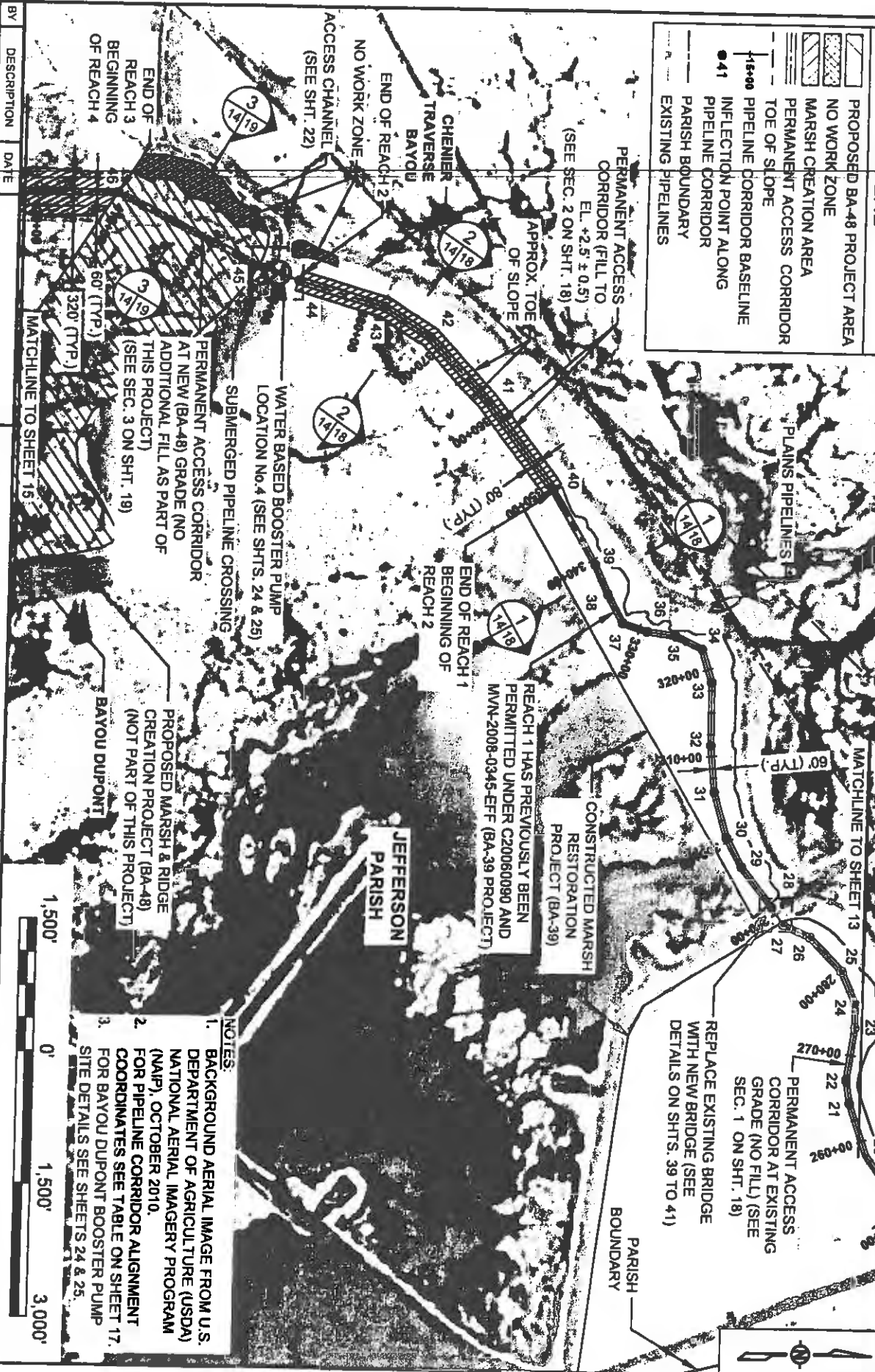
STATE PROJECT NUMBER: BA-43 (EB)  
FEDERAL PROJECT NUMBER: N/A

**PIPELINE CORRIDOR LAYOUT (2 OF 4)**

DATE: DECEMBER 12, 2012  
SHEET 13 OF 41

**LEGEND**

-  PROPOSED BA-48 PROJECT AREA
-  NO WORK ZONE
-  MARSH CREATION AREA
-  PERMANENT ACCESS CORRIDOR
-  TOE OF SLOPE
-  PIPELINE CORRIDOR BASELINE
-  INFLECTION POINT ALONG PIPELINE CORRIDOR
-  PARISH BOUNDARY
-  EXISTING PIPELINES



**NOTES:**

1. BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER 2010.
2. FOR PIPELINE CORRIDOR ALIGNMENT COORDINATES SEE TABLE ON SHEET 17.
3. FOR BAYOU DUPONT BOOSTER PUMP SITE DETAILS SEE SHEETS 24 & 25.



**COASTAL PROTECTION & RESTORATION AUTHORITY**

ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 600  
BATON ROUGE, LA 70825  
225-507-7783

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

PIPELINE CORRIDOR  
LAYOUT (3 OF 4)

STATE PROJECT NUMBER: BA-43 (EB)

DATE: DECEMBER 12, 2012

FEDERAL PROJECT NUMBER: N/A









SHEET 14 OF 41

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/08/12

DRAWN BY: YC  
DESIGNED BY: SA

APPROVED BY: MAURY CHATELLIER, P.E.

**LEGEND**

-  PROPOSED BA-48 PROJECT AREA
-  MARSH CREATION AREA
-  PERMANENT ACCESS CORRIDOR
-  PIPELINE CORRIDOR BASELINE
-  INFLECTION POINT
-  TOP OF SLOPE
-  EARTHEN CONTAINMENT DIKE
-  EXISTING PIPELINES



BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 600  
BATON ROUGE, LA 70825  
225-387-7793

**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

DESIGNED BY: SA

APPROVED BY: MAURY CHATELIER, P.E.

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

PIPELINE CORRIDOR  
LAYOUT (4 OF 4)

STATE PROJECT NUMBER: BA-43 (EB)

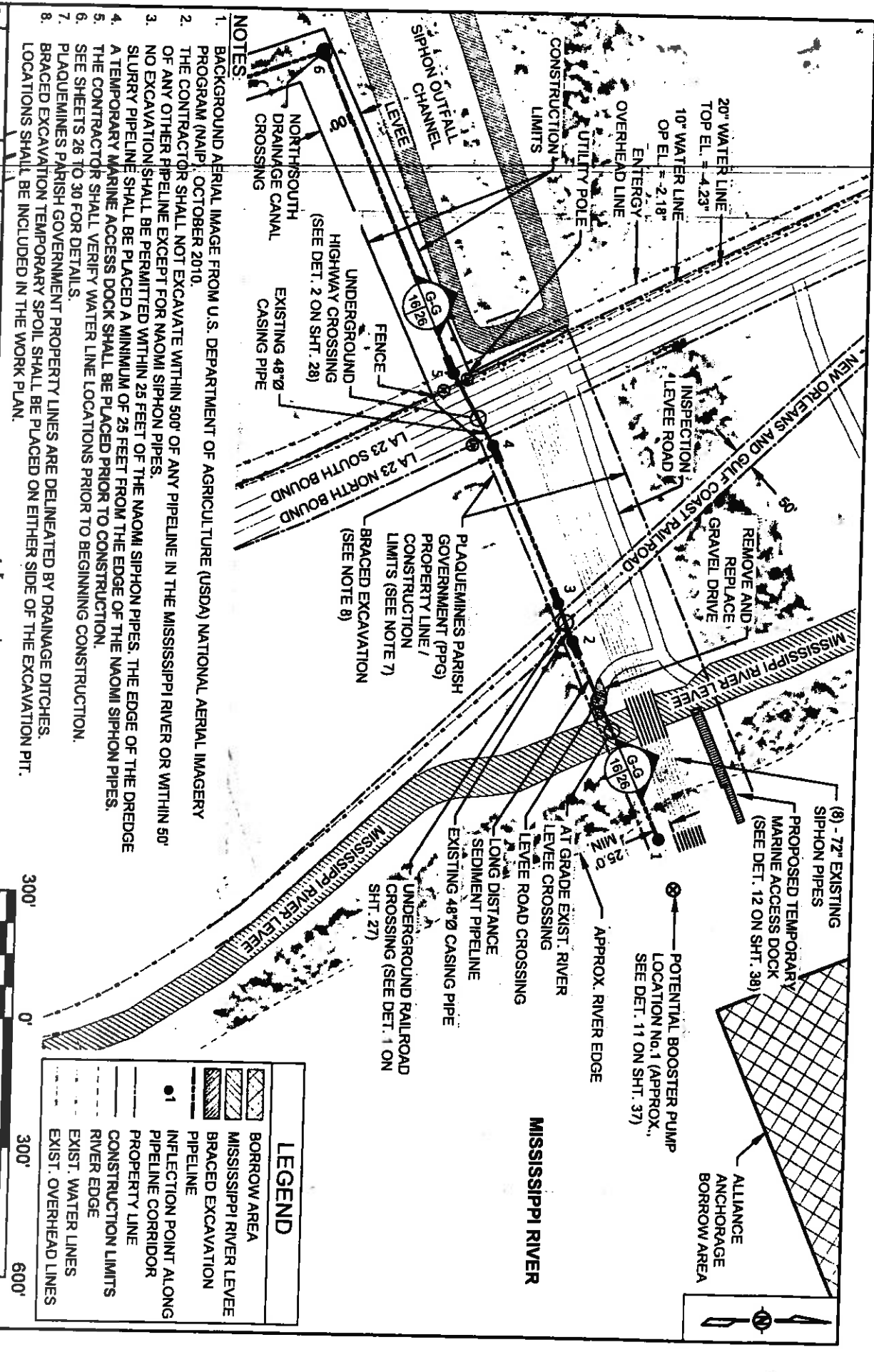
DATE: DECEMBER 12, 2012

FEDERAL PROJECT NUMBER: N/A

SHEET 15 OF 41



- NOTES:**
- BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER 2010.
  - FOR PIPELINE CORRIDOR ALIGNMENT & ADDITIONAL MARSH CREATION AREA COORDINATES SEE TABLE ON SHEET 17.



**NOTES:**

1. BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER 2010.
2. THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 500' OF ANY PIPELINE IN THE MISSISSIPPI RIVER OR WITHIN 50' OF ANY OTHER PIPELINE EXCEPT FOR NAOMI SIPHON PIPES.
3. NO EXCAVATION SHALL BE PERMITTED WITHIN 25 FEET OF THE NAOMI SIPHON PIPES. THE EDGE OF THE DREDGE SLURRY PIPELINE SHALL BE PLACED A MINIMUM OF 25 FEET FROM THE EDGE OF THE NAOMI SIPHON PIPES.
4. A TEMPORARY MARINE ACCESS DOCK SHALL BE PLACED PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL VERIFY WATER LINE LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
6. SEE SHEETS 26 TO 30 FOR DETAILS.
7. PLAQUEMINES PARISH GOVERNMENT PROPERTY LINES ARE DELINEATED BY DRAINAGE DITCHES.
8. BRACED EXCAVATION TEMPORARY SPOIL SHALL BE PLACED ON EITHER SIDE OF THE EXCAVATION PIT.
9. LOCATIONS SHALL BE INCLUDED IN THE WORK PLAN.

**LEGEND**

- BORROW AREA
- MISSISSIPPI RIVER LEVEE
- BRACED EXCAVATION
- PIPELINE
- INFLECTION POINT ALONG PIPELINE CORRIDOR
- PROPERTY LINE
- CONSTRUCTION LIMITS
- RIVER EDGE
- EXIST. WATER LINES
- EXIST. OVERHEAD LINES

BY	DESCRIPTION	DATE
SA	REVISION 5	12/17/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12



**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

PIPELINE CORRIDOR  
DETAIL A

DRAWN BY: VC	DESIGNED BY: SA	APPROVED BY: MAURY CHATELLER, P.E.	STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
			FEDERAL PROJECT NUMBER: N/A	SHEET 16 OF 41

PIPELINE CORRIDOR ALIGNMENT

PT.	LATITUDE	LONGITUDE
1	29° 42' 03.65" N	89° 59' 01.44" W
2	29° 42' 01.58" N	89° 59' 06.71" W
3	29° 42' 01.24" N	89° 59' 07.71" W
4	29° 41' 59.67" N	89° 59' 11.90" W
5	29° 41' 58.73" N	89° 59' 13.82" W
6	29° 41' 55.64" N	89° 59' 22.27" W
7	29° 41' 40.40" N	89° 59' 16.32" W
8	29° 41' 04.23" N	89° 59' 15.22" W
9	29° 40' 56.28" N	89° 59' 13.92" W
10	29° 40' 16.32" N	89° 59' 06.00" W
11	29° 40' 05.58" N	89° 59' 04.03" W
12	29° 40' 00.10" N	89° 59' 59.20" W
13	29° 39' 27.14" N	90° 00' 36.31" W
14	29° 39' 26.32" N	90° 00' 40.52" W
15	29° 39' 25.26" N	90° 00' 42.84" W
16	29° 39' 21.00" N	90° 00' 44.18" W
17	29° 39' 20.08" N	90° 00' 45.51" W
18	29° 39' 19.67" N	90° 00' 47.36" W
19	29° 39' 18.35" N	90° 00' 51.73" W
20	29° 39' 13.49" N	90° 00' 59.89" W
21	29° 39' 11.57" N	90° 01' 06.43" W
22	29° 39' 11.17" N	90° 01' 09.43" W
23	29° 39' 12.07" N	90° 01' 16.15" W
24	29° 39' 12.08" N	90° 01' 19.20" W
25	29° 39' 10.50" N	90° 01' 23.40" W
26	29° 39' 06.93" N	90° 01' 27.77" W
27	29° 39' 03.93" N	90° 01' 29.37" W
28	29° 39' 02.66" N	90° 01' 31.56" W
29	29° 38' 58.09" N	90° 01' 36.77" W
30	29° 38' 57.33" N	90° 01' 40.53" W
31	29° 38' 55.85" N	90° 01' 46.47" W
32	29° 38' 55.39" N	90° 01' 52.52" W
33	29° 38' 55.40" N	90° 02' 00.71" W
34	29° 38' 54.26" N	90° 02' 05.00" W
35	29° 38' 51.24" N	90° 02' 06.67" W
36	29° 38' 48.03" N	90° 02' 07.20" W
37	29° 38' 45.29" N	90° 02' 08.26" W
38	29° 38' 43.58" N	90° 02' 11.97" W
39	29° 38' 42.10" N	90° 02' 15.78" W
40	29° 38' 37.05" N	90° 02' 25.47" W
41	29° 38' 29.71" N	90° 02' 36.65" W
42	29° 38' 23.16" N	90° 02' 45.01" W
43	29° 38' 17.99" N	90° 02' 48.83" W
44	29° 38' 08.30" N	90° 02' 52.14" W
45	29° 38' 03.70" N	90° 02' 54.05" W

PT.	LATITUDE	LONGITUDE
46	29° 37' 47.94" N	90° 03' 03.37" W
47	29° 36' 48.43" N	90° 03' 03.76" W
48	29° 36' 49.44" N	90° 03' 08.53" W
49	29° 36' 47.82" N	90° 03' 14.80" W
50	29° 36' 45.83" N	90° 03' 15.40" W
51	29° 36' 14.08" N	90° 03' 15.80" W
52	29° 36' 14.19" N	90° 03' 26.04" W
53	29° 36' 14.03" N	90° 03' 39.98" W
54	29° 36' 15.72" N	90° 03' 46.51" W
55	29° 36' 09.48" N	90° 04' 16.78" W

ADDITIONAL MARSH AREA  
(TOP OF SLOPE)

PT.	LATITUDE	LONGITUDE
1	29° 37' 09.74" N	90° 03' 05.44" W
2	29° 36' 51.36" N	90° 03' 05.55" W
3	29° 36' 52.00" N	90° 03' 08.60" W
4	29° 36' 50.03" N	90° 03' 16.24" W
5	29° 36' 46.63" N	90° 03' 18.64" W
6	29° 36' 29.79" N	90° 03' 25.34" W
7	29° 36' 29.79" N	90° 03' 25.34" W
8	29° 36' 29.53" N	90° 03' 28.15" W
9	29° 36' 29.65" N	90° 03' 40.60" W
10	29° 36' 34.21" N	90° 03' 45.20" W
11	29° 36' 41.70" N	90° 03' 47.24" W
12	29° 36' 49.99" N	90° 03' 46.13" W
13	29° 36' 56.56" N	90° 03' 42.32" W
14	29° 36' 59.84" N	90° 03' 32.70" W
15	29° 36' 59.65" N	90° 03' 13.33" W
16	29° 37' 02.51" N	90° 03' 12.08" W
17	29° 37' 08.41" N	90° 03' 10.74" W

PROBABLE PROPOSED  
BOOSTER PUMP LOCATIONS

PT.	LATITUDE	LONGITUDE
1	29° 42' 04.01" N	89° 59' 00.12" W
2	29° 39' 58.03" N	89° 59' 11.71" W
3	29° 39' 29.57" N	90° 00' 33.78" W
4	29° 38' 05.92" N	90° 02' 53.14" W

ACCESS CHANNEL ALIGNMENT

PT.	LATITUDE	LONGITUDE
1	29° 38' 33.79" N	90° 05' 43.76" W
2	29° 38' 36.11" N	90° 05' 38.23" W
3	29° 38' 35.25" N	90° 05' 38.05" W
4	29° 38' 33.94" N	90° 05' 37.43" W
5	29° 38' 33.08" N	90° 05' 35.59" W
6	29° 38' 32.07" N	90° 05' 34.21" W
7	29° 38' 30.85" N	90° 05' 31.02" W
8	29° 38' 30.78" N	90° 05' 28.75" W
9	29° 38' 28.67" N	90° 05' 18.84" W
10	29° 38' 26.43" N	90° 05' 16.81" W
11	29° 38' 30.26" N	90° 05' 15.41" W
12	29° 38' 33.49" N	90° 05' 13.23" W
13	29° 38' 34.70" N	90° 05' 06.01" W
14	29° 38' 35.21" N	90° 05' 00.40" W
15	29° 38' 34.77" N	90° 04' 55.13" W
16	29° 38' 33.52" N	90° 04' 49.78" W
17	29° 38' 31.55" N	90° 04' 38.98" W
18	29° 38' 24.42" N	90° 04' 37.22" W
19	29° 38' 22.33" N	90° 04' 33.99" W
20	29° 38' 17.09" N	90° 04' 29.78" W
21	29° 38' 16.07" N	90° 04' 28.39" W
22	29° 38' 14.53" N	90° 04' 25.78" W
23	29° 38' 12.55" N	90° 04' 20.94" W
24	29° 38' 11.96" N	90° 04' 18.04" W
25	29° 38' 11.26" N	90° 04' 14.17" W
26	29° 38' 10.59" N	90° 04' 11.61" W
27	29° 38' 08.55" N	90° 04' 11.11" W
28	29° 38' 07.56" N	90° 04' 09.47" W
29	29° 38' 05.95" N	90° 04' 07.09" W
30	29° 38' 04.23" N	90° 03' 57.32" W
31	29° 38' 01.33" N	90° 03' 53.74" W
32	29° 37' 58.26" N	90° 03' 50.99" W
33	29° 37' 58.56" N	90° 03' 48.16" W
34	29° 37' 58.67" N	90° 03' 42.71" W
35	29° 37' 59.61" N	90° 03' 39.88" W
36	29° 38' 00.16" N	90° 03' 36.90" W
37	29° 37' 59.91" N	90° 03' 36.03" W
38	29° 37' 58.56" N	90° 03' 35.09" W
39	29° 37' 56.92" N	90° 03' 29.95" W
40	29° 37' 56.06" N	90° 03' 23.74" W
41	29° 37' 55.53" N	90° 03' 20.42" W
42	29° 37' 53.79" N	90° 03' 15.34" W
43	29° 37' 52.82" N	
44	29° 37' 52.63" N	
45	29° 37' 52.76" N	

PT.	LATITUDE	LONGITUDE
46	29° 37' 53.05" N	90° 03' 12.51" W
47	29° 37' 53.63" N	90° 03' 10.48" W
48	29° 37' 54.31" N	90° 03' 09.40" W
49	29° 37' 56.11" N	90° 03' 08.75" W
50	29° 37' 57.50" N	90° 03' 08.22" W
51	29° 37' 59.11" N	90° 03' 06.86" W
52	29° 38' 00.30" N	90° 03' 05.45" W
53	29° 38' 00.92" N	90° 03' 04.47" W
54	29° 38' 02.81" N	90° 03' 02.54" W
55	29° 38' 04.94" N	90° 03' 01.49" W
56	29° 38' 04.97" N	90° 03' 00.88" W
57	29° 38' 06.05" N	90° 02' 59.77" W
58	29° 38' 06.50" N	90° 02' 58.86" W
59	29° 38' 06.70" N	90° 02' 57.71" W
60	29° 38' 06.81" N	90° 02' 56.01" W
61	29° 38' 05.55" N	90° 02' 51.89" W

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

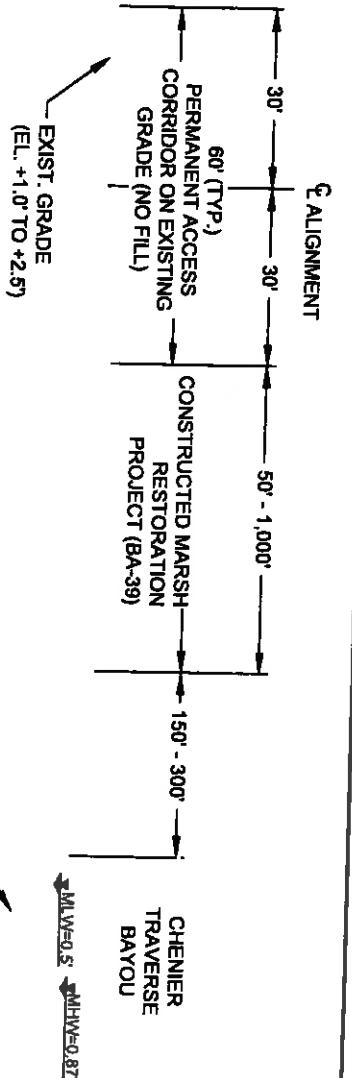
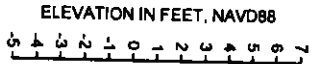


**COASTAL PROTECTION & RESTORATION AUTHORITY**  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

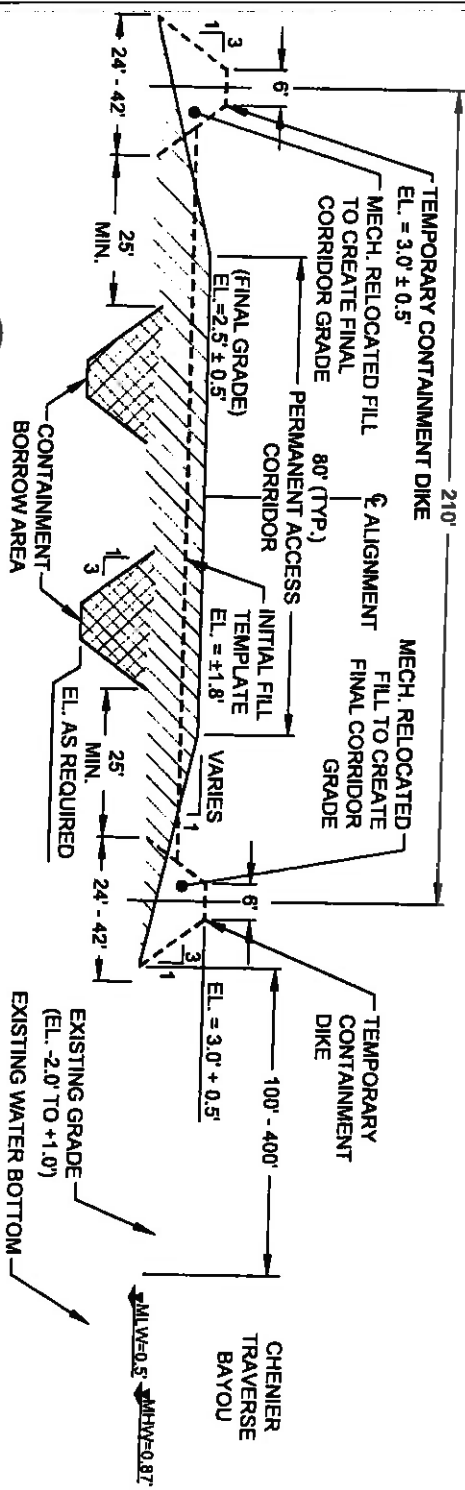
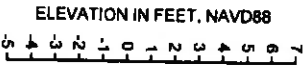
MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

PROJECT ALIGNMENT TABLES  
DATE: DECEMBER 12, 2012

DRAWN BY YC	DESIGNED BY SA	APPROVED BY: MAURY CHATELLIER, P.E.	FEDERAL PROJECT NUMBER: N/A	SHEET 17 OF 41
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1 TYPICAL REACH 1 SECTION (ACROSS BA-39 PROJECT AREA)  
 (STA. 232+12.07 TO STA. 349+28.02)



2 TYPICAL REACH 2 SECTION (BETWEEN BA-39 & BAYOU DUPONT)  
 (STA. 349+28.02 TO STA. 388+06.42)

NOTE:  
 EXISTING GROUND ELEVATIONS BASED ON TOPOGRAPHIC  
 SURVEYS PERFORMED FROM JULY 26 THROUGH OCTOBER 10,  
 2011 BY T. BAKER SMITH, LLC.



BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

ONE AMERICAN PLACE  
 301 MAIN STREET, SUITE 800  
 BATON ROUGE, LA 70823  
 225-387-7793

**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
 BATON ROUGE, LOUISIANA 70801

DESIGNED BY: SA

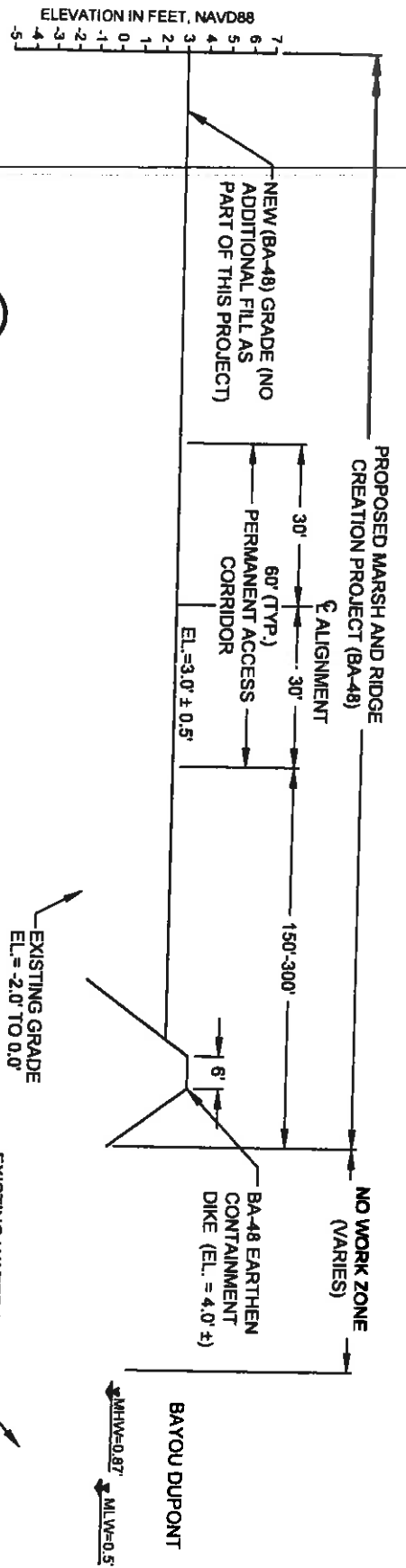
APPROVED BY: MAURY CHATELLER, P.E.

STATE PROJECT NUMBER: BA-43 (E9)  
 FEDERAL PROJECT NUMBER: N/A

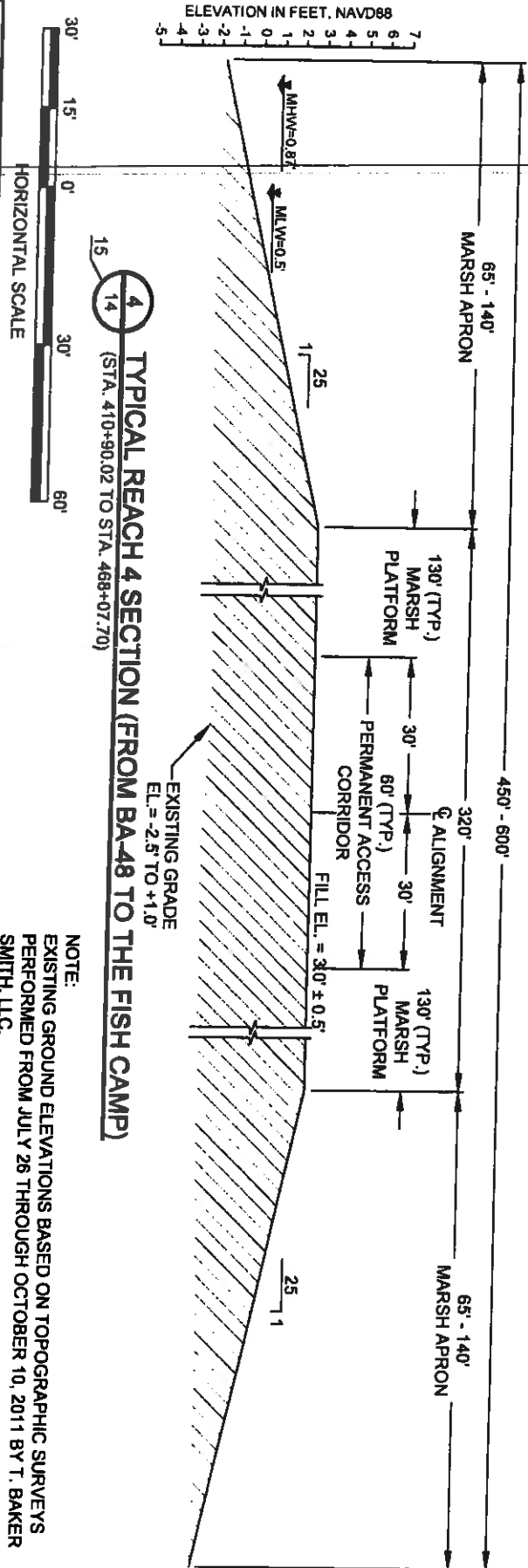
MISSISSIPPI RIVER  
 LONG DISTANCE SEDIMENT PIPELINE

TYPICAL  
 FILL SECTIONS  
 (SHEET 1 OF 4)

DATE: DECEMBER 12, 2012  
 SHEET 18 OF 41



**3** TYPICAL REACH 3 SECTION (ACROSS PROPOSED BA-48 PROJECT AREA)  
 (STA. 392+97.96 TO STA. 410+90.02)

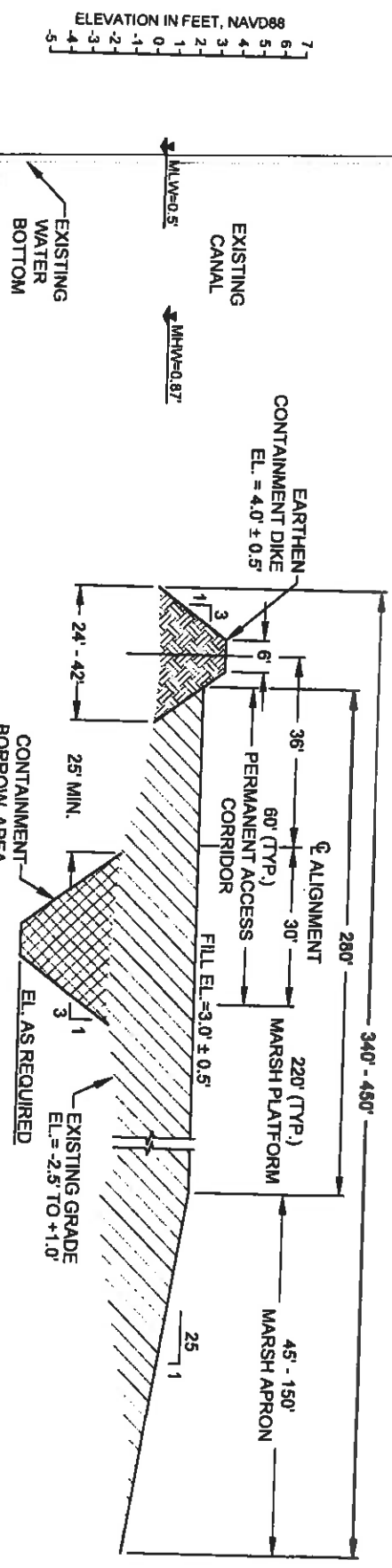


**4** TYPICAL REACH 4 SECTION (FROM BA-48 TO THE FISH CAMP)  
 (STA. 410+90.02 TO STA. 468+07.70)

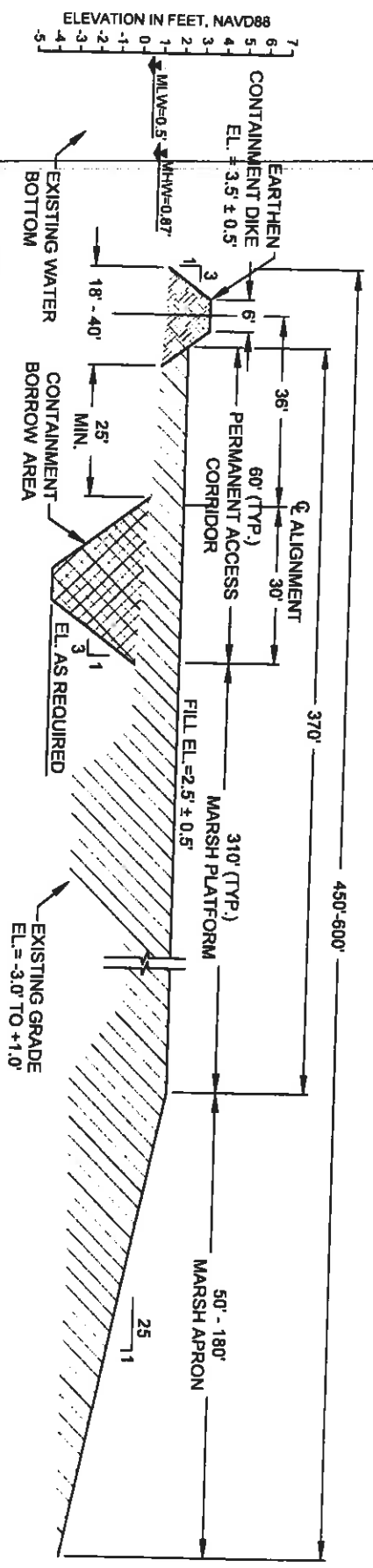
NOTE:  
 EXISTING GROUND ELEVATIONS BASED ON TOPOGRAPHIC SURVEYS  
 PERFORMED FROM JULY 26 THROUGH OCTOBER 10, 2011 BY T. BAKER  
 SMITH, LLC.

BY	DESCRIPTION	DATE	DESIGNED BY: SA		APPROVED BY: MAURY CHATELIER, P.E.		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
SA	REVISION 5	12/12/12			<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE		TYPICAL FILL SECTIONS (SHEET 2 OF 4)	
SA	REVISION 4	08/24/12								
SA	REVISION 3	03/09/12								
SA	REVISION 2	02/24/12								
SA	REVISION 1	02/24/12								
DRAWN BY: VC			DESIGNED BY: SA		APPROVED BY: MAURY CHATELIER, P.E.		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
							FEDERAL PROJECT NUMBER: N/A		SHEET 19 OF 41	





**5 TYPICAL REACH 5 SECTION (FROM THE FISH CAMP TO STA. 511+83.65)**  
 (STA. 468+07.70 TO STA. 511+83.65)

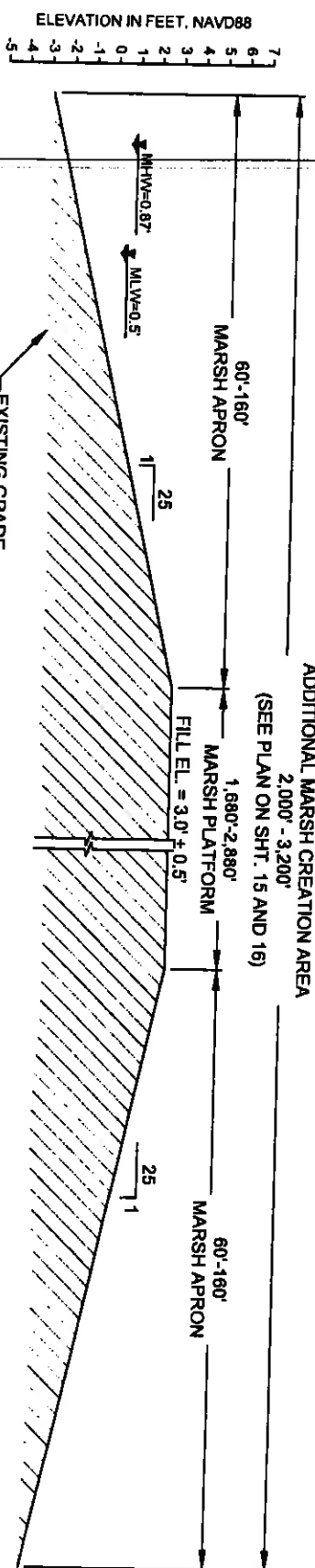


**6 TYPICAL REACH 6 SECTION (FROM STA. 511+83.65 TO BARATARIA WATERWAY)**  
 (STA. 511+83.65 TO STA. 570+22.0)

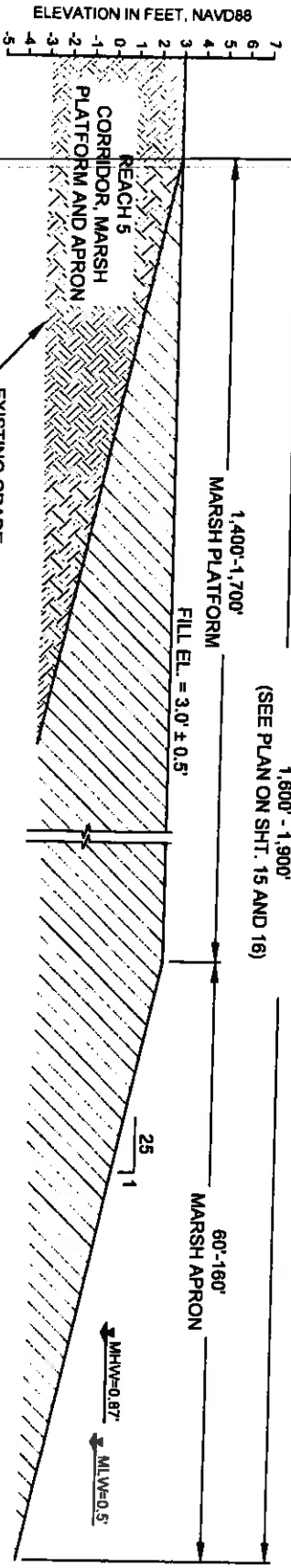


NOTE:  
 EXISTING GROUND ELEVATIONS BASED ON  
 TOPOGRAPHIC SURVEYS PERFORMED FROM JULY 26  
 THROUGH OCTOBER 10, 2011 BY T. BAKER SMITH, LLC.

BY	DESCRIPTION	DATE	MAURY CHATELLIER & ASSOCIATES		COASTAL PROTECTION & RESTORATION AUTHORITY		MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE		TYPICAL FILL SECTIONS (SHEET 3 OF 4)	
SA	REVISION 5	12/19/12	ONE AMERICAN PLACE 3011 MAIN STREET, SUITE 800 BATON ROUGE, LA 70805 225-927-7793		450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
SA	REVISION 4	08/27/12					FEDERAL PROJECT NUMBER: N/A		SHEET 20 OF 41	
SA	REVISION 3	03/09/12								
DRAWN BY YC							DESIGNED BY SA		APPROVED BY MAURY CHATELLIER, P.E.	




**7**  
 TYPICAL FILL SECTION ACROSS ADDITIONAL MARSH CREATION AREA  
 (SOUTH TO NORTH)



**8**  
 TYPICAL FILL SECTION ACROSS ADDITIONAL MARSH CREATION AREA  
 (WEST TO EAST)

NOTE:  
 EXISTING GROUND ELEVATIONS BASED ON  
 TOPOGRAPHIC SURVEYS PERFORMED FROM JULY 26  
 THROUGH OCTOBER 10, 2011 BY T. BAKER SMITH, LLC.

BY	DESCRIPTION	DATE	 OMC AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-927-7733		<b>COASTAL PROTECTION &amp; RESTORATION            AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	TYPICAL FILL SECTIONS (SHEET 4 OF 4)
SA	REVISION 5	12/12/12					STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
SA	REVISION 4	08/24/12					FEDERAL PROJECT NUMBER: N/A	SHEET 21 OF 41
SA	REVISION 3	03/05/12						
DRAWN BY: YC			DESIGNED BY: SA		APPROVED BY: MAURİY CHATELLIER, P.E.			

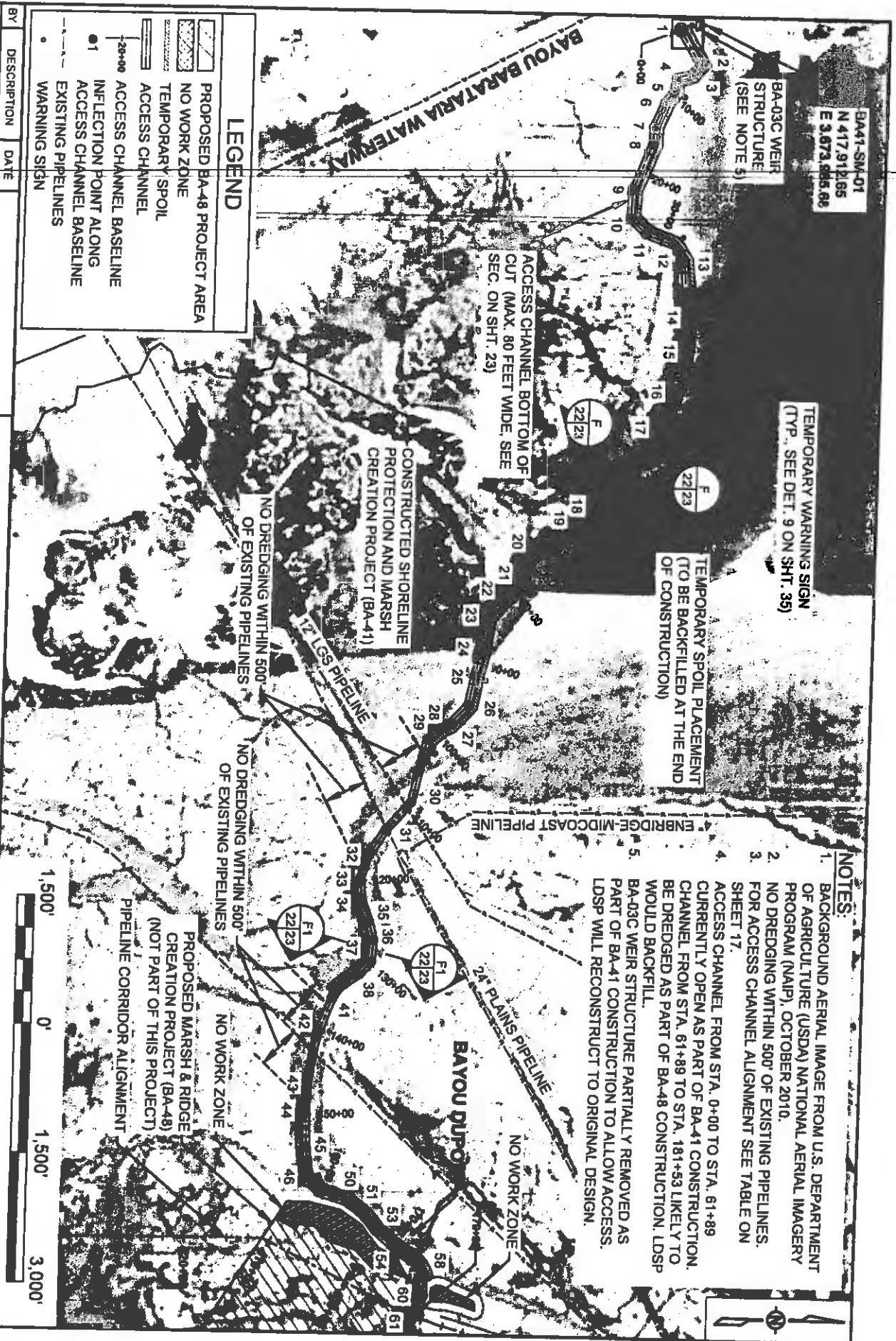
BA41-SM-01  
 N 417.912.65  
 E 3.673.665.66

BA-03C WEIR  
 STRUCTURE  
 (SEE NOTE 5)

TEMPORARY WARNING SIGN  
 (TYP., SEE DET. 9 ON SHT. 35)

TEMPORARY SPOIL PLACEMENT  
 (TO BE BACKFILLED AT THE END  
 OF CONSTRUCTION)

- NOTES:**
1. BACKGROUND AERIAL IMAGE FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER 2010.
  2. NO DREDGING WITHIN 500' OF EXISTING PIPELINES.
  3. FOR ACCESS CHANNEL ALIGNMENT SEE TABLE ON SHEET 17.
  4. ACCESS CHANNEL FROM STA. 0+00 TO STA. 61+89 CURRENTLY OPEN AS PART OF BA-41 CONSTRUCTION. CHANNEL FROM STA. 61+89 TO STA. 181+53 LIKELY TO BE DREDGED AS PART OF BA-48 CONSTRUCTION. LDSP WOULD BACKFILL.
  5. BA-03C WEIR STRUCTURE PARTIALLY REMOVED AS PART OF BA-41 CONSTRUCTION TO ALLOW ACCESS. LDSP WILL RECONSTRUCT TO ORIGINAL DESIGN.



**LEGEND**

- PROPOSED BA-48 PROJECT AREA
- NO WORK ZONE
- TEMPORARY SPOIL
- ACCESS CHANNEL
- ACCESS CHANNEL BASELINE
- INFLECTION POINT ALONG ACCESS CHANNEL BASELINE
- EXISTING PIPELINES
- WARNING SIGN

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12



ONE AMERICAN PLACE  
 301 MAIN STREET, SUITE 800  
 BATON ROUGE, LA 70825  
 225-421-7175

**COASTAL PROTECTION & RESTORATION  
 AUTHORITY**

450 LAUREL STREET  
 BATON ROUGE, LOUISIANA, 70801

DESIGNED BY: SA

APPROVED BY: MAURY CHATELIER, P.E.

**MISSISSIPPI RIVER  
 LONG DISTANCE SEDIMENT PIPELINE**

**ACCESS CHANNEL  
 LAYOUT**

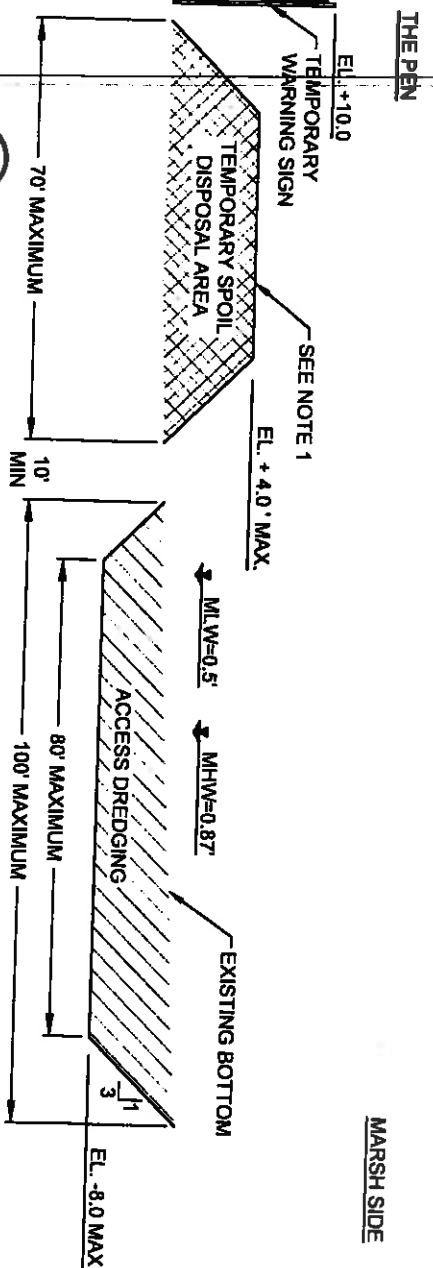
STATE PROJECT NUMBER: BA-43 (EB)

DATE: DECEMBER 12, 2012

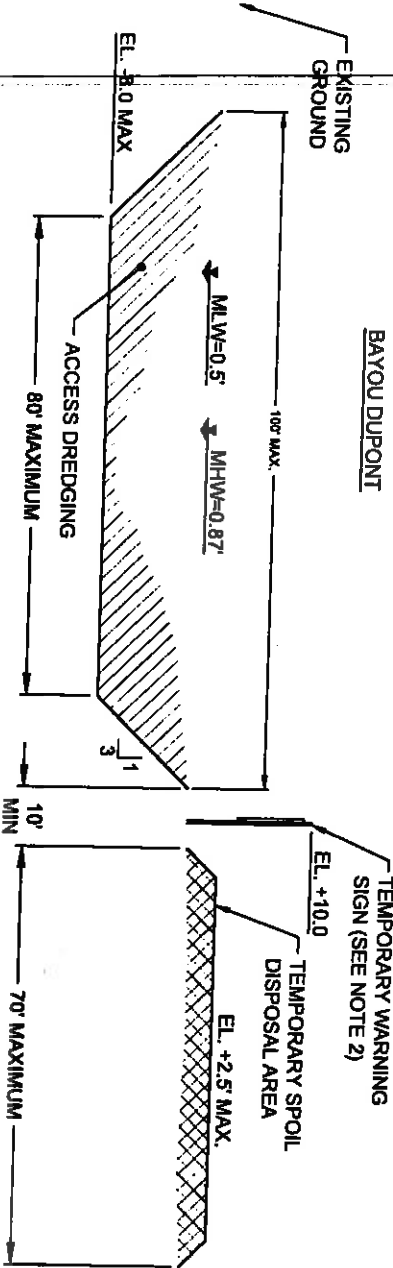
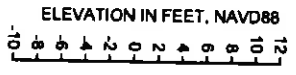
FEDERAL PROJECT NUMBER: N/A

SHEET 22 OF 41





F TYPICAL ACCESS CHANNEL SECTION @ THE PEN




F1 TYPICAL ACCESS CHANNEL SECTION @ BAYOU DUPONT

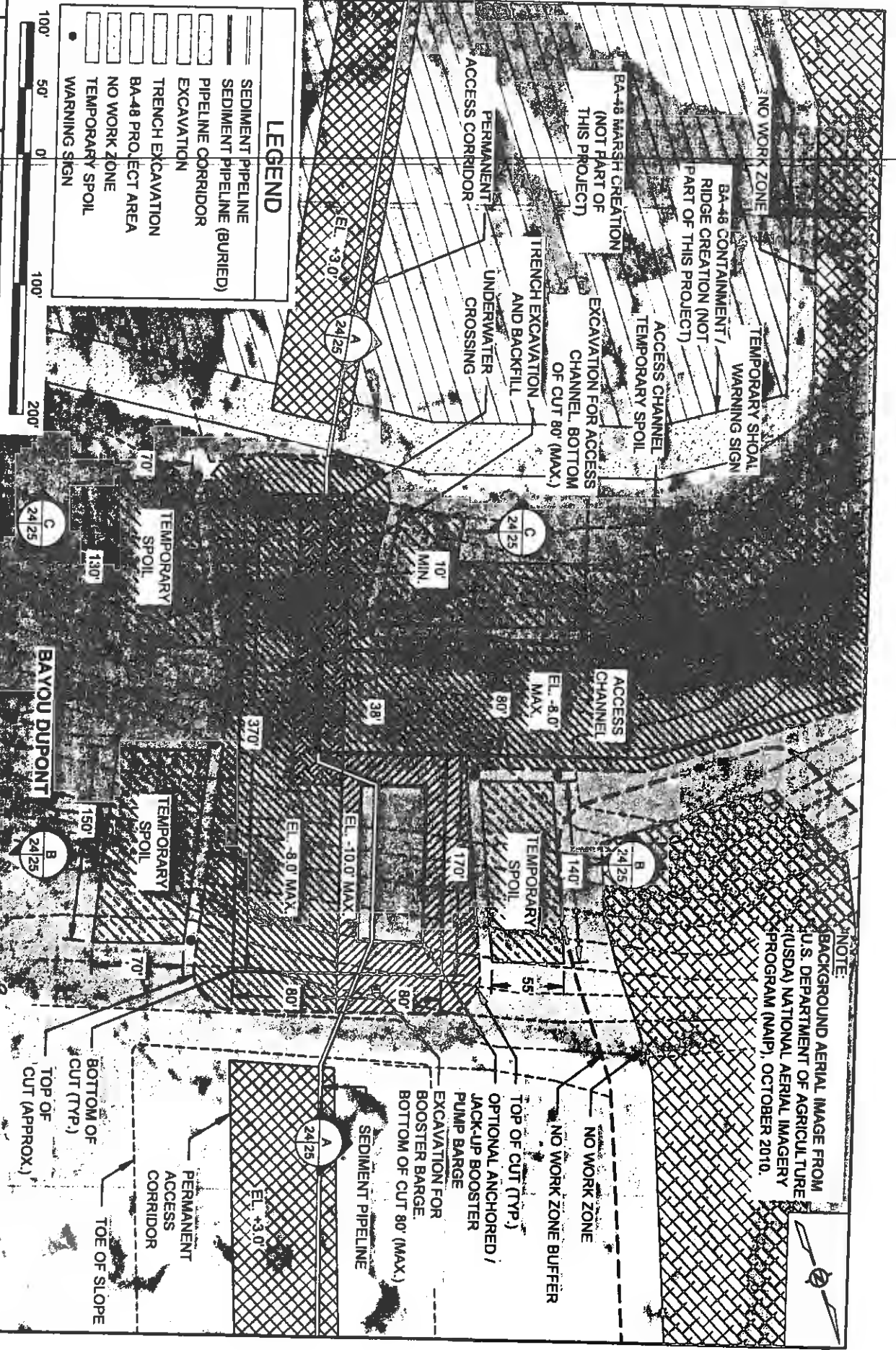
**NOTES:**

1. MATERIAL EXCAVATED TO CONSTRUCT THE ACCESS CHANNEL SHALL BE PLACED ON THE LAKE SIDE AND PULLED BACK INTO THE ACCESS CHANNEL PRIOR TO FINAL INSPECTION.
2. TEMPORARY WARNING SIGNS SHALL BE PLACED AT A MAXIMUM SPACING OF 500 FT ALONG ALL TEMPORARY SPOIL DISPOSAL AREAS.
3. ACCESS CHANNEL FROM STA. 0+00 TO STA. 61+89 CURRENTLY OPEN AS PART OF BA-41 CONSTRUCTION. CHANNEL FROM STA. 61+89 TO STA. 181+53 LIKELY TO BE DREDGED AS PART OF BA-48 CONSTRUCTION. LDSP WOULD BACKFILL.



BY	DESCRIPTION	DATE	DESIGNED BY	APPROVED BY	STATE PROJECT NUMBER	DATE				
SA	REVISION 5	12/12/12	 <p>ONE AMERICAN PLACE 301 MAUL STREET, SUITE 800 BATON ROUGE, LA 70805 225-927-7793</p>	<p>MAURY CHATELIER, P.E.</p>	<p>BA-43 (EB)</p>	<p>DECEMBER 12, 2012</p>				
SA	REVISION 4	08/24/12								
SA	REVISION 3	03/09/12								
DRAWN BY: YC							<p>DESIGNED BY: SA</p>	<p>APPROVED BY: MAURY CHATELIER, P.E.</p>	<p>FEDERAL PROJECT NUMBER: N/A</p>	<p>SHEET 23 OF 41</p>
							<p>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</p> <p>450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE</p>	<p>TYPICAL ACCESS CHANNEL SECTIONS</p>	

NOTE:  
 BACKGROUND AERIAL IMAGE FROM  
 U.S. DEPARTMENT OF AGRICULTURE  
 (USDA) NATIONAL AERIAL IMAGERY  
 PROGRAM (NAIP), OCTOBER 2010.



**LEGEND**

- SEDIMENT PIPELINE
- SEDIMENT PIPELINE (BURIED)
- PIPELINE CORRIDOR
- EXCAVATION
- TRENCH EXCAVATION
- BA-48 PROJECT AREA
- NO WORK ZONE
- TEMPORARY SPOIL
- WARNING SIGN

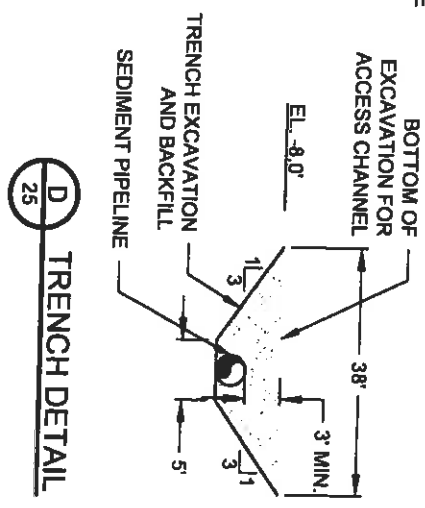
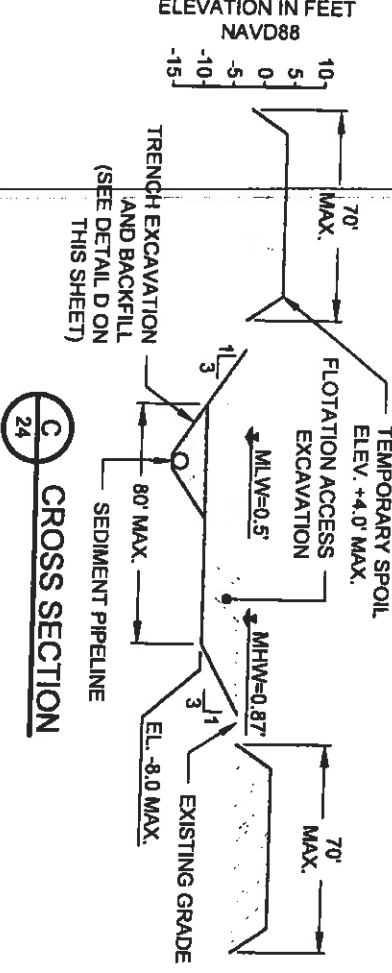
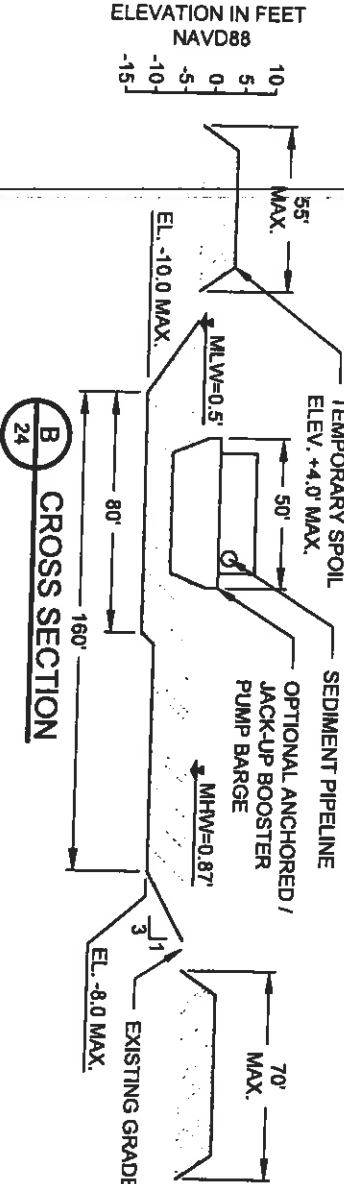
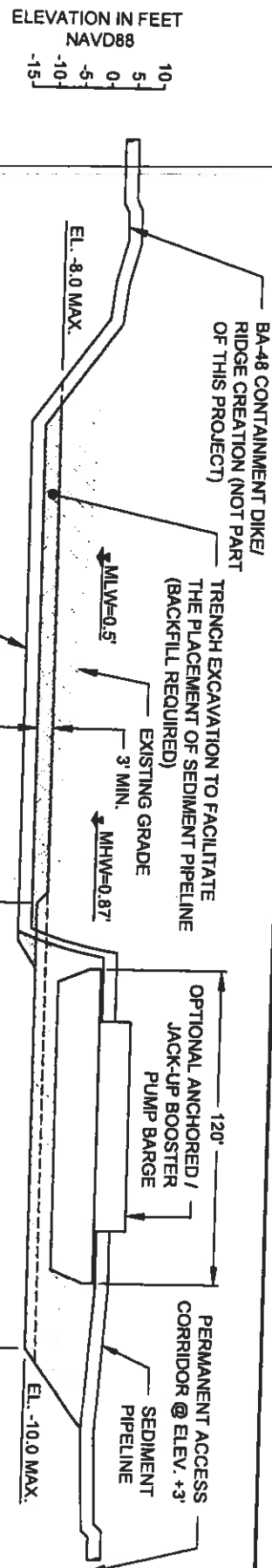
BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/06/12


DESIGNED BY: SA  
  
 ONE AMERICAN PLACE  
 301 MAIN STREET, SUITE 400  
 BATON ROUGE, LA 70825  
 225-927-7793

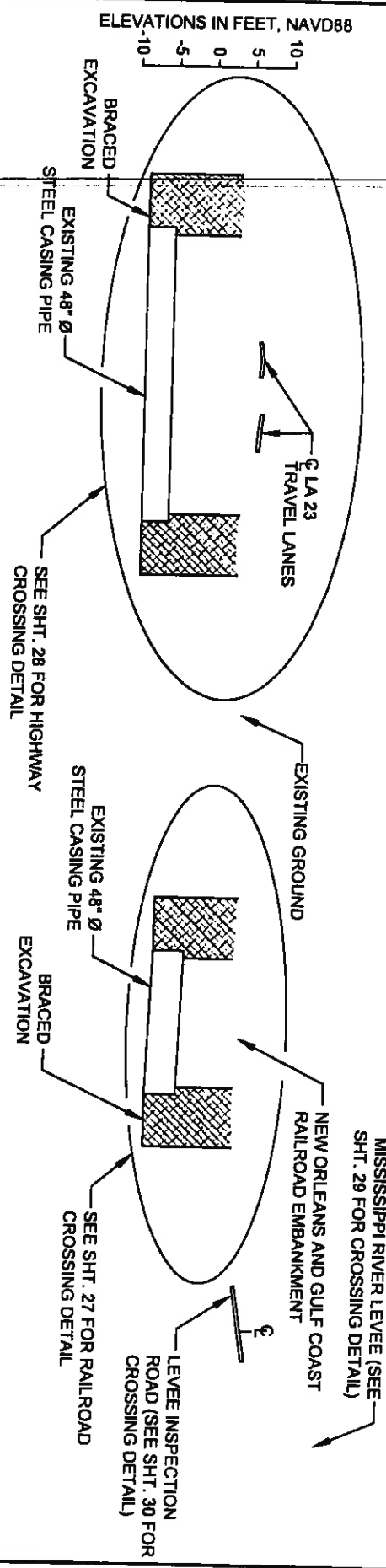
**COASTAL PROTECTION & RESTORATION AUTHORITY**  
 450 LAUREL STREET  
 BATON ROUGE, LOUISIANA 70801

MISSISSIPPI RIVER  
 LONG DISTANCE SEDIMENT PIPELINE  
 STATE PROJECT NUMBER: BA-43 (EB)  
 FEDERAL PROJECT NUMBER: N/A

DATE: DECEMBER 12, 2012  
 SHEET 24 OF 41




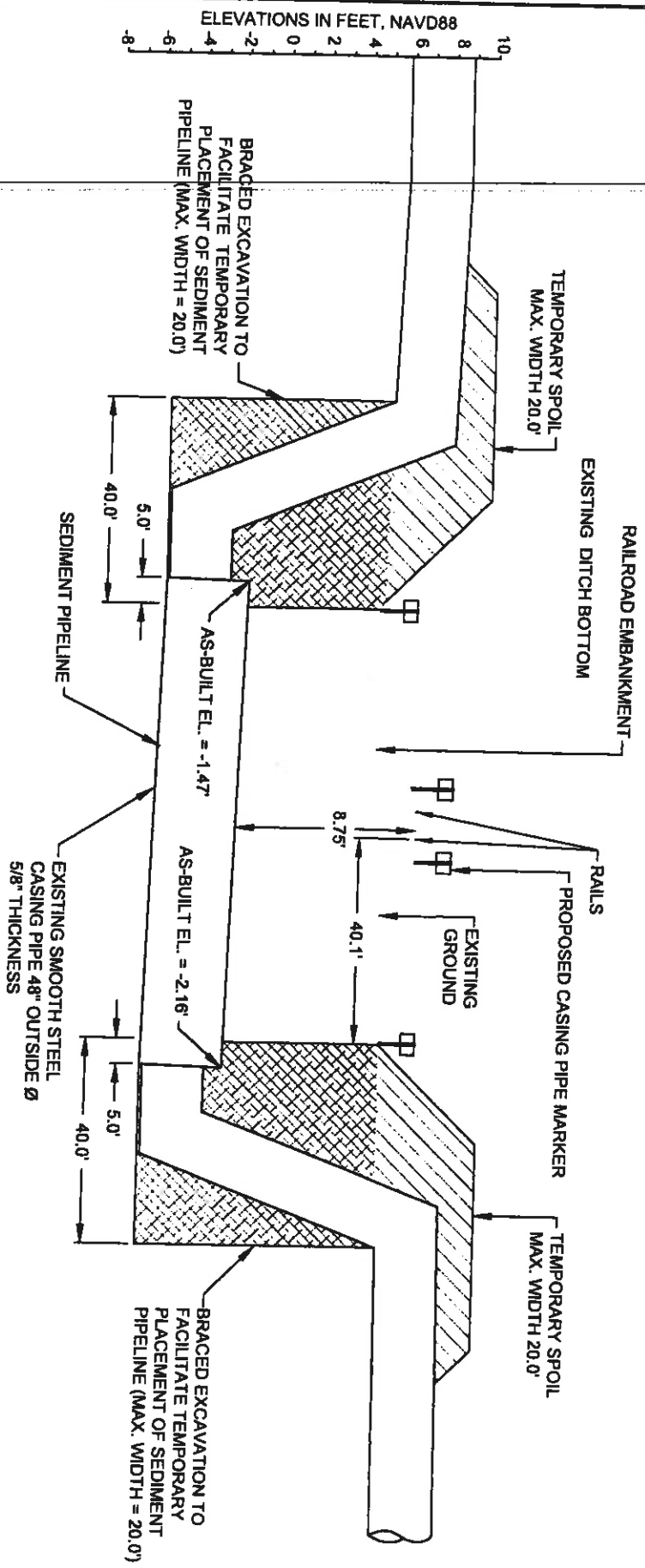
BY	DESCRIPTION	DATE	DESIGNED BY: SA	APPROVED BY: MAURY CHATELLIER, P.E.	STATE PROJECT NUMBER: BA-43 (E8)	DATE: DECEMBER 12, 2012
SA	REVISION 5	12/12/12	 <p>ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-927-7183</p>	<p>450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	BAYOU DUPONT BOOSTER PUMP SITE TYPICAL DETAILS
SA	REVISION 4	08/24/12				
SA	REVISION 3	03/06/12				
SA	REVISION 2	03/06/12				
SA	REVISION 1	03/06/12				
DRAWN BY: YC			SHEET 25 OF 41			



**G-G DREDGE PIPELINE CORRIDOR SECTION**



BY	DESCRIPTION	DATE	 ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-827-7783		<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE		DREDGE PIPELINE CORRIDOR SECTION	
SA	REVISION 5	12/1/12					STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
SA	REVISION 4	08/24/12					FEDERAL PROJECT NUMBER: N/A		SHEET 26 OF 41	
SA	REVISION 3	03/08/12								
DRAWN BY: YC			DESIGNED BY: SA		APPROVED BY: MAURY CHATELLER, P.E.					



**1**  
16 **RAILROAD CROSSING DETAIL**

**NOTES:**

1. TEMPORARY SPOIL SHALL BE PLACED ADJACENT THE EXCAVATION ON BOTH SIDES.
2. THE TEMPORARY SPOIL SHALL BE BACKFILLED INTO EXCAVATION AFTER COMPLETION OF CONSTRUCTION.

LEGEND	
	TEMPORARY SPOIL
	BRACED EXCAVATION
	EXISTING GROUND



BY	DESCRIPTION	DATE
SA	REVISION 5	12/19/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12
SA	DESIGNED BY: SA	



ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 800  
BATON ROUGE, LA 70825  
225-927-7183

**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

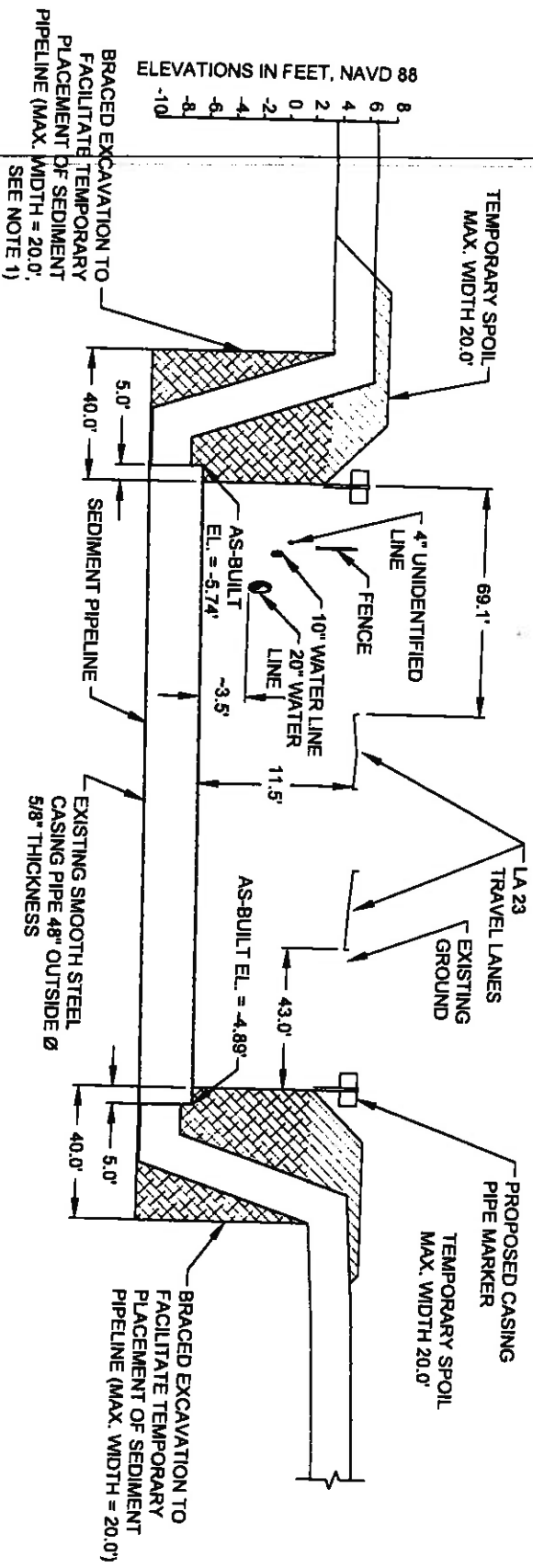
MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

RAILROAD  
CROSSING DETAIL

STATE PROJECT NUMBER: BA-43 (EB)  
FEDERAL PROJECT NUMBER: N/A

DATE: DECEMBER 12, 2012  
SHEET 27 OF 41





**2**  
16  
**HIGHWAY CROSSING DETAIL**

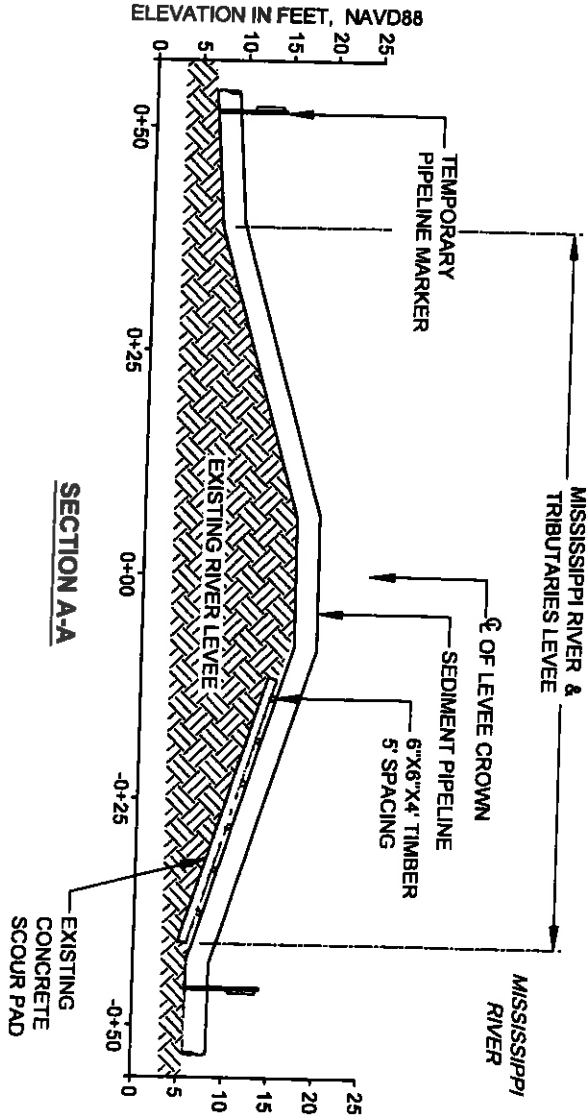
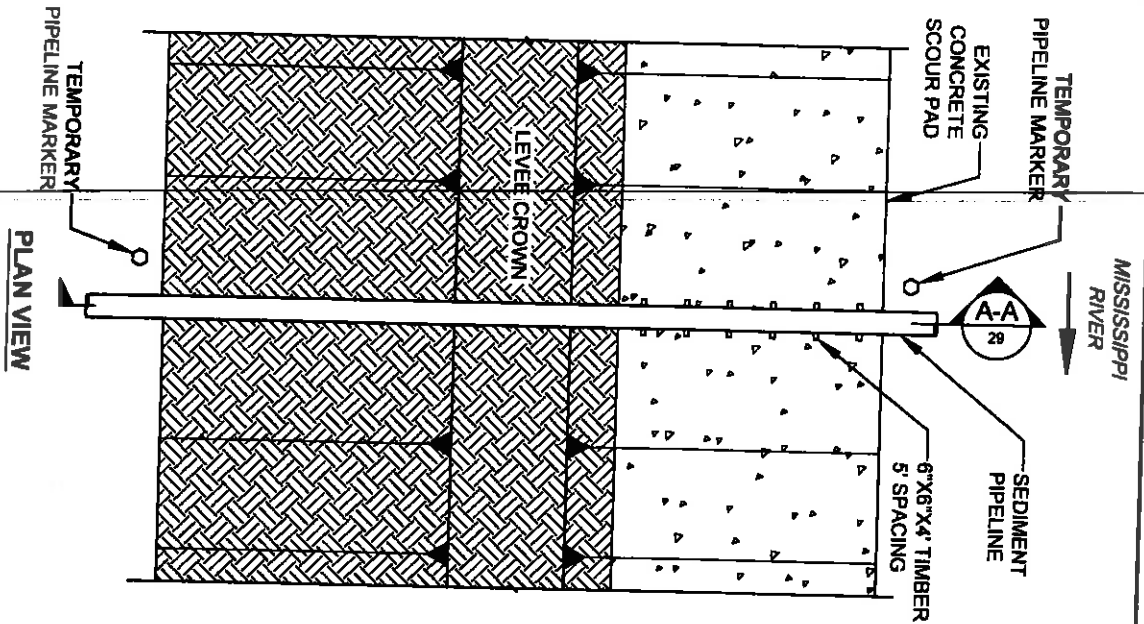
**NOTES:**

1. TEMPORARY SPOIL SHALL BE PLACED ADJACENT THE EXCAVATION ON BOTH SIDES.
2. THE TEMPORARY SPOIL SHALL BE BACKFILLED INTO EXCAVATION AFTER COMPLETION OF CONSTRUCTION.

LEGEND	
	TEMPORARY SPOIL
	BRACED EXCAVATION
	EXISTING GROUND




BY	DESCRIPTION	DATE	 ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-927-7793		DESIGNED BY	APPROVED BY	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	DATE	SHEET
SA	REVISION 5	12/12/12			SA	MAURY CHATELLIER, P.E.	BA-43 (EB)	N/A	DECEMBER 12, 2012	28 OF 41
SA	REVISION 4	08/24/12								
SA	REVISION 3	03/09/12								
DRAWN BY: YC			<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		<b>MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE</b>		<b>HIGHWAY CROSSING DETAIL</b>			

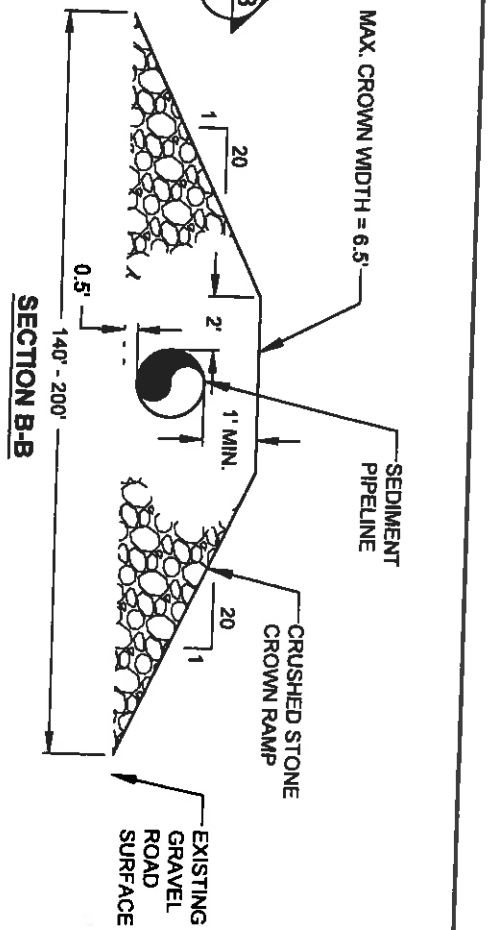
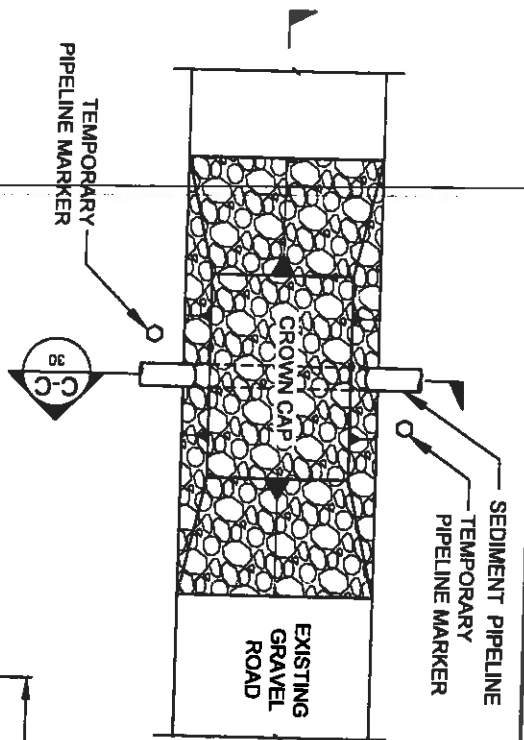


**3 MISSISSIPPI RIVER LEVEE CROSSING DETAIL**  
 SCALE: 1"=20'

- NOTES:
1. TEMPORARY PIPELINE MARKERS INDICATING OWNER, CONTENTS, AND ADDRESS FOR CONTACTING OWNER SHALL BE PLACED AND MAINTAINED AT EACH TOE OF LEVEE NEAR SEDIMENT PIPELINE.
  2. EXISTING GRADE BASED ON JANUARY 2012 TBS SURVEY.

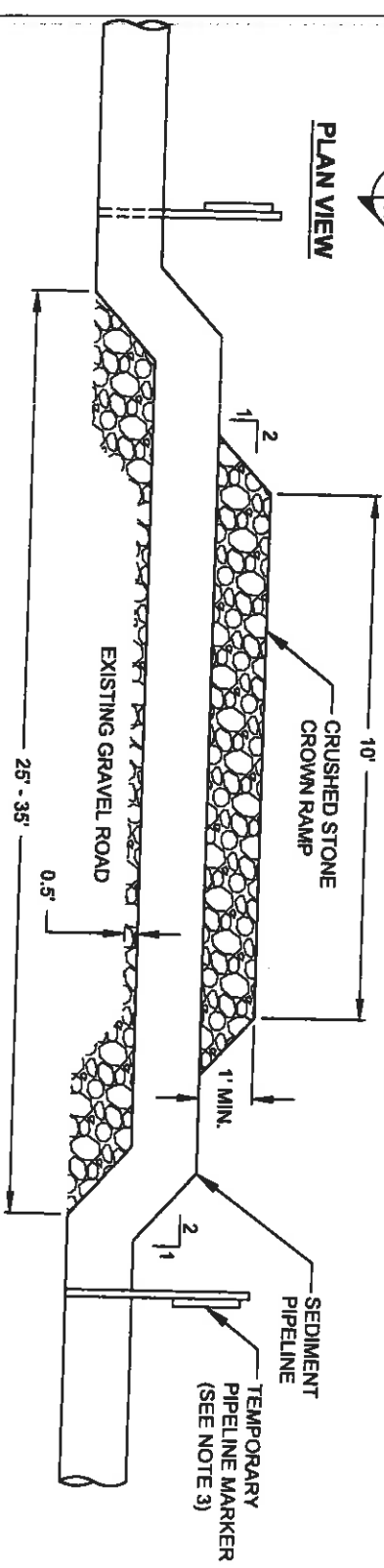


BY	DESCRIPTION	DATE	DESIGNED BY: SA	APPROVED BY: MAURY CHATELIER, P.E.	STATE PROJECT NUMBER: BA-43 (EB)	FEDERAL PROJECT NUMBER: N/A	DATE: DECEMBER 12, 2012
SA	REVISION 5	12/12/12	 <p>ONE AMERICAN PLACE            301 MAIN STREET, SUITE 800            BATON ROUGE, LA 70825            225-371-7783</p>	<p><b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b>            450 LAUREL STREET            BATON ROUGE, LOUISIANA 70801</p>	<p>MISSISSIPPI RIVER            LONG DISTANCE SEDIMENT PIPELINE</p>	<p>MISSISSIPPI RIVER LEVEE            CROSSING DETAIL</p>	<p>SHEET 28 OF 41</p>
SA	REVISION 4	08/24/12					
SA	REVISION 3	03/09/12					
DRAWN BY: VC							



**4 MISSISSIPPI RIVER LEVEE INSPECTION ROAD CROSSING DETAIL**  
 16 NOT TO SCALE


**SECTION C-C**



- NOTES:
1. MISSISSIPPI RIVER LEVEE INSPECTION ROAD IS AT THE LANDSIDE TOE OF THE MISSISSIPPI RIVER LEVEE.
  2. THE CROWN RAMP OVER THE PIPELINE CROSSINGS SHALL CONSIST OF CRUSHED STONE FOR FULL WIDTH AND LENGTH OF RAMP. THE CRUSH STONE MATERIAL SHALL CONFORM TO DOTD 5006 SPECIFICATION 1003.04 (a).
  3. TEMPORARY PIPELINE MARKERS INDICATING OWNER, CONTENTS, AND ADDRESS FOR CONTACTING OWNER SHALL BE PLACED AND MAINTAINED AT EACH TOE OF LEVEE NEAR SEDIMENT PIPELINE.

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/08/12

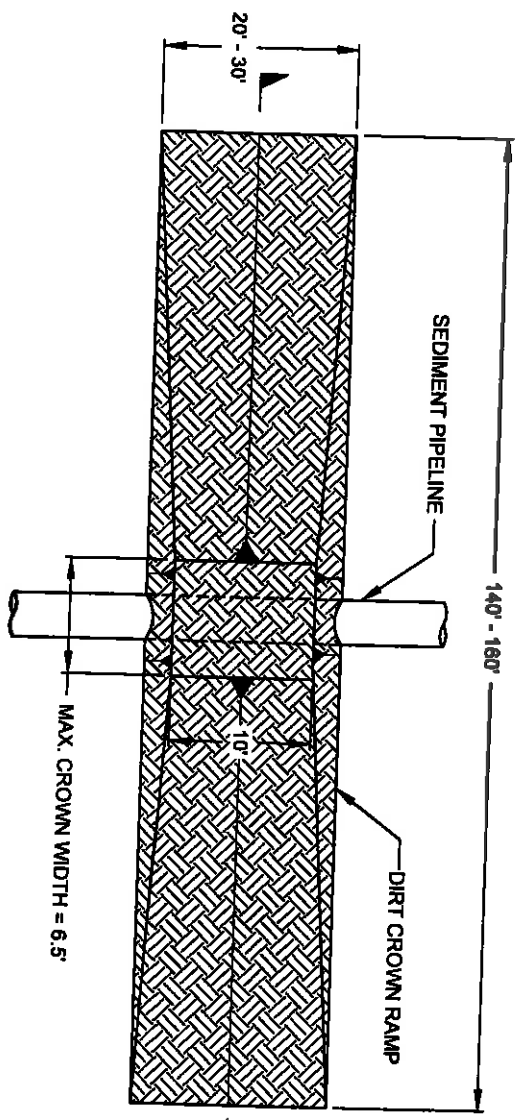
 ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-427-1793	<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801
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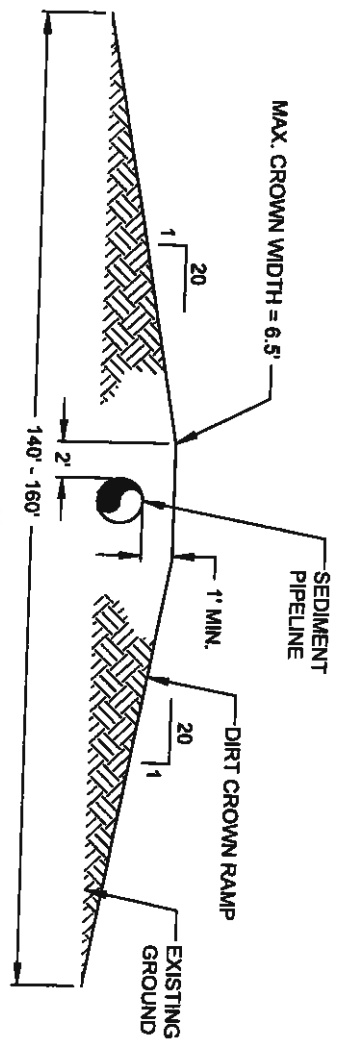
DESIGNED BY: SA	APPROVED BY: MAURY CHATELLER, P. E.
-----------------	-------------------------------------

STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
FEDERAL PROJECT NUMBER: N/A	SHEET 30 OF 41



PLAN VIEW




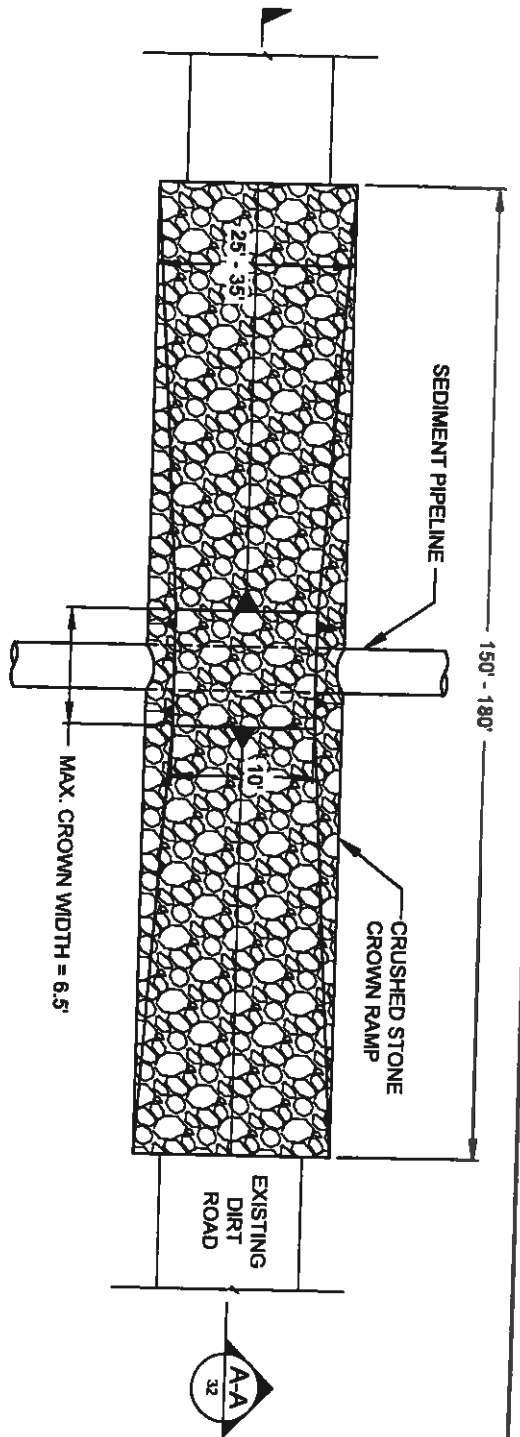
SECTION A-A

5 CATTLE CROSSING DETAIL  
12 NOT TO SCALE

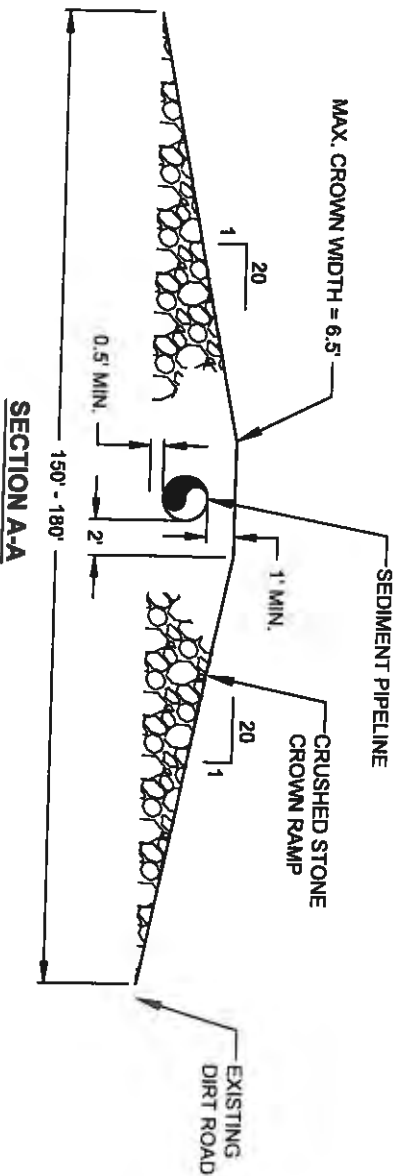
BY	DESCRIPTION	DATE
SA	REVISION 5	12/13/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

 <p>ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-927-7793</p>	<p><b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b></p> <p>450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>DESIGNED BY: SA</p> <p>APPROVED BY: MAURY CHATELLIER, P.E.</p>
<p>STATE PROJECT NUMBER: BA-43 (EB)</p> <p>FEDERAL PROJECT NUMBER: N/A</p>	<p>MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE</p>	<p>CATTLE CROSSING DETAIL</p> <p>DATE: DECEMBER 12, 2012</p> <p>SHEET 31 OF 41</p>



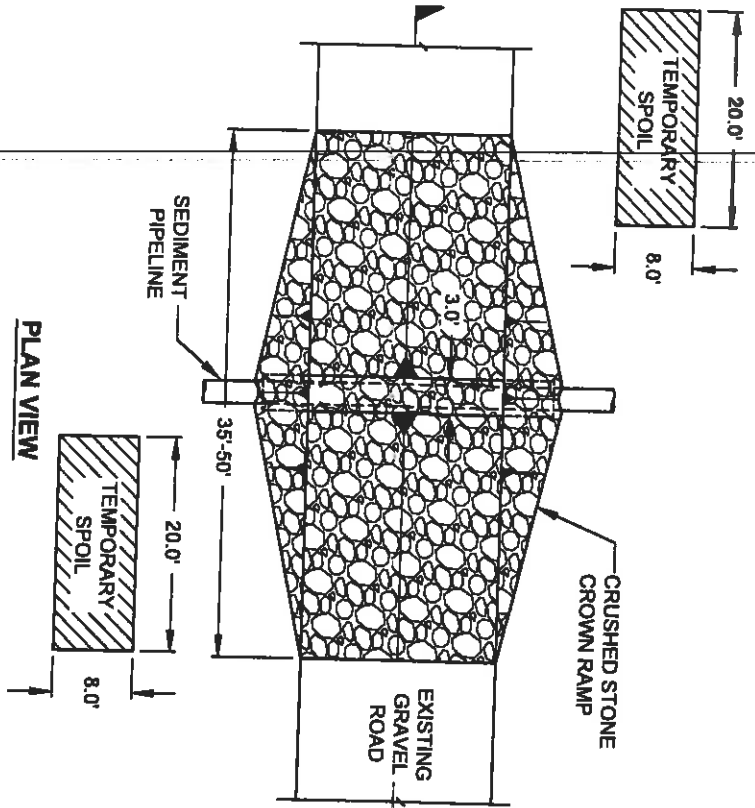
**PLAN VIEW**



**6** DIRT ROAD CROSSING DETAIL  
12 NOT TO SCALE

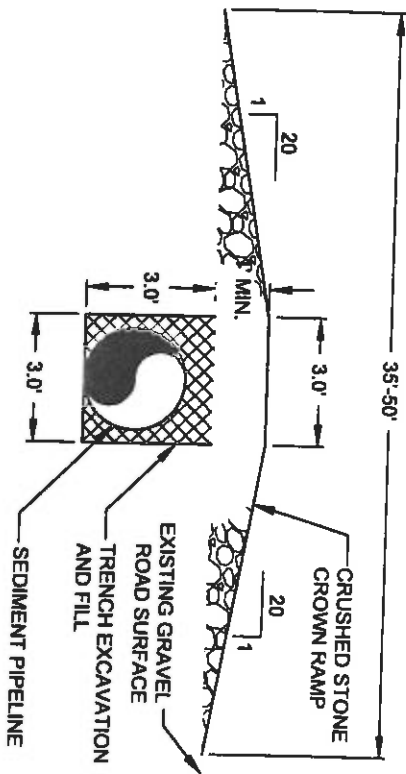
NOTE:  
THE CROWN RAMP OVER THE PIPELINE CROSSINGS SHALL CONSIST OF CRUSHED STONE FOR FULL WIDTH AND LENGTH OF RAMP. THE CRUSH STONE MATERIAL SHALL CONFORM TO DOTD 5006 SPECIFICATION 1003.04 (a).

BY	DESCRIPTION	DATE	DESIGNED BY: SA		APPROVED BY: MAURY CHATELIER, P.E.		STATE PROJECT NUMBER: BA-43 (EB)		DATE: DECEMBER 12, 2012	
SA	REVISION 5	12/12/12			<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		<b>MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE</b>		<b>DIRT ROAD CROSSING DETAIL.</b>	
SA	REVISION 4	06/24/12								
SA	REVISION 3	03/09/12								
DRAWN BY: YC			DESIGNED BY: SA		APPROVED BY: MAURY CHATELIER, P.E.		FEDERAL PROJECT NUMBER: N/A		SHEET 32 OF 41	




**PLAN VIEW**

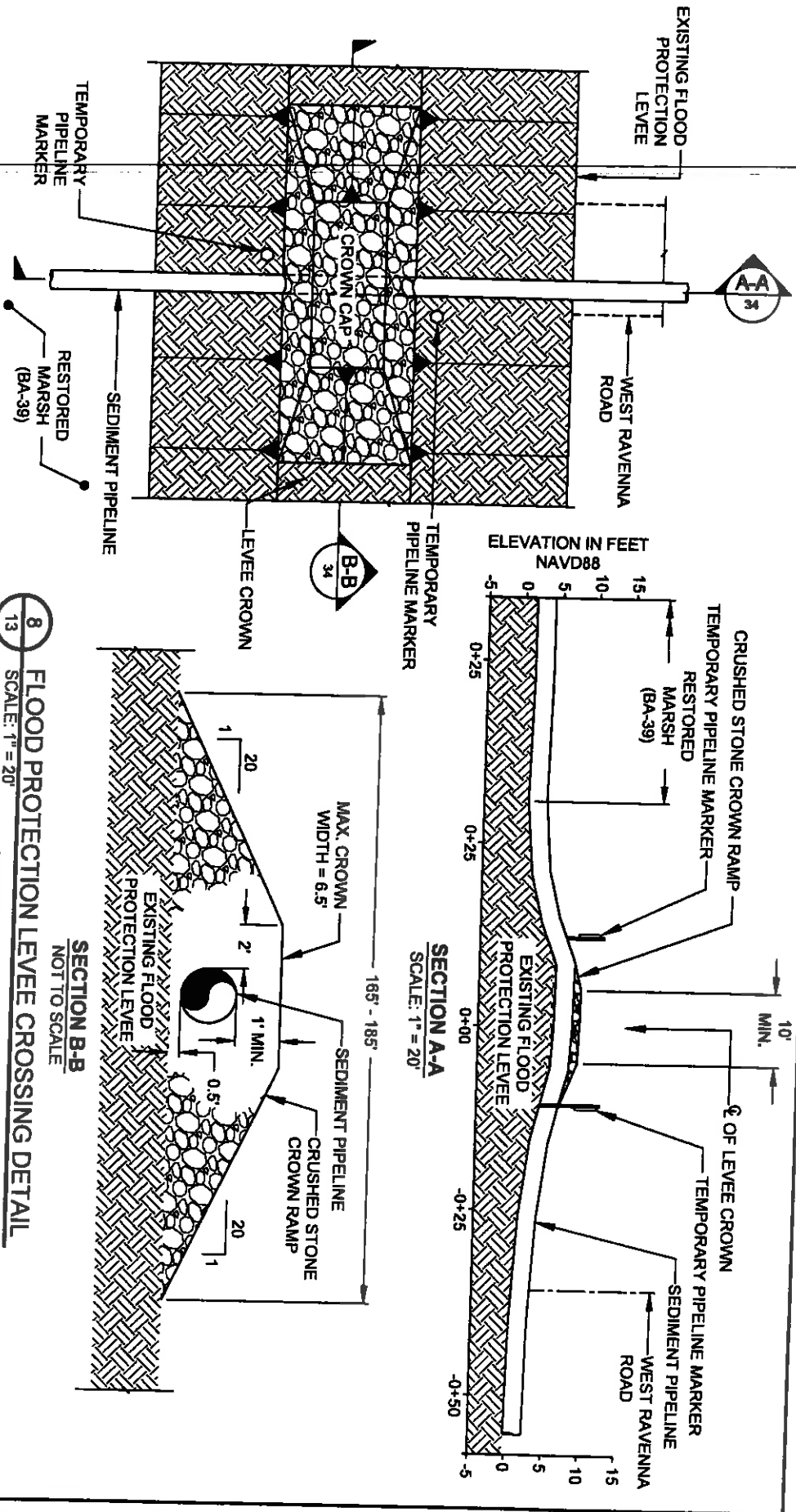
**SECTION A-A**



**NOTE:**  
 THE CROWN RAMP OVER THE PIPELINE CROSSINGS SHALL CONSIST OF CRUSHED STONE FOR FULL WIDTH AND LENGTH OF RAMP. THE CRUSH STONE MATERIAL SHALL CONFORM TO DOTD 5006 SPECIFICATION 1003.04 (a).

**7**  
 13 **GRAVEL ROAD CROSSING DETAIL**  
 NOT TO SCALE

BY	DESCRIPTION	DATE	 ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-927-1793		<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	GRAVEL ROAD CROSSING DETAIL
SA	REVISION 5	12/12/12					STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
SA	REVISION 4	08/24/12					FEDERAL PROJECT NUMBER: N/A	SHEET 33 OF 41
SA	REVISION 3	03/09/12						
DRAWN BY: YC			DESIGNED BY: SA		APPROVED BY: MAURY CHATELLER, P.E.			



**8 FLOOD PROTECTION LEVEL CROSSING DETAIL**  
SCALE: 1" = 20'

- NOTES:
1. THE CROWN RAMP OVER THE PIPELINE CROSSINGS SHALL CONSIST OF CRUSHED STONE FOR FULL WIDTH AND LENGTH OF RAMP. THE CRUSH STONE MATERIAL SHALL CONFORM TO DOTD 5006 SPECIFICATION 1003.04 (a).
  2. TEMPORARY PIPELINE MARKERS INDICATING OWNER CONTENTS, AND ADDRESS FOR CONTACTING OWNER SHALL BE PLACED AND MAINTAINED AT EACH TOE OF THE LEVEE NEAR SEDIMENT PIPELINE.
  3. EXISTING GRADE BASED ON JANUARY 2012 TBS SURVEY.



BY	DESCRIPTION	DATE
SA	REVISION 5	12/13/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12



ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 800  
BATON ROUGE, LA 70805  
225-487-1783

**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

DESIGNED BY: SA

APPROVED BY: MAURY CHATELLIER, P.E.

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

FLOOD PROTECTION LEVEL  
CROSSING DETAIL

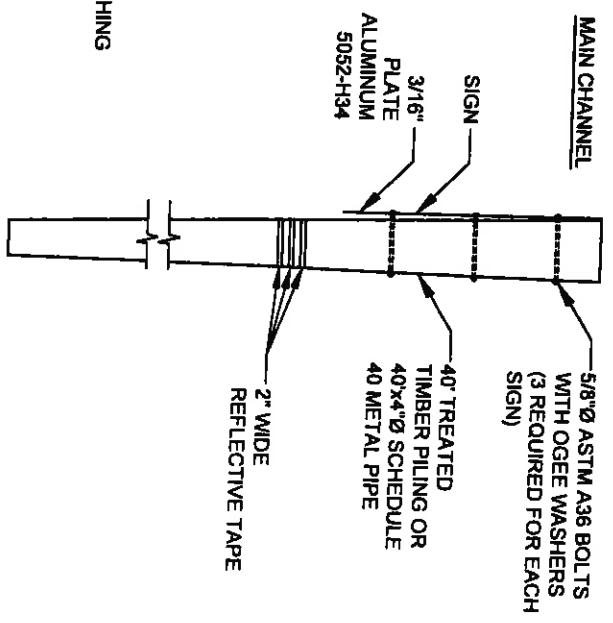
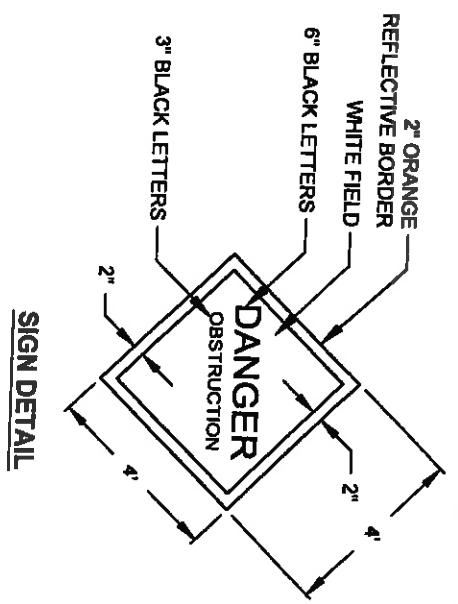
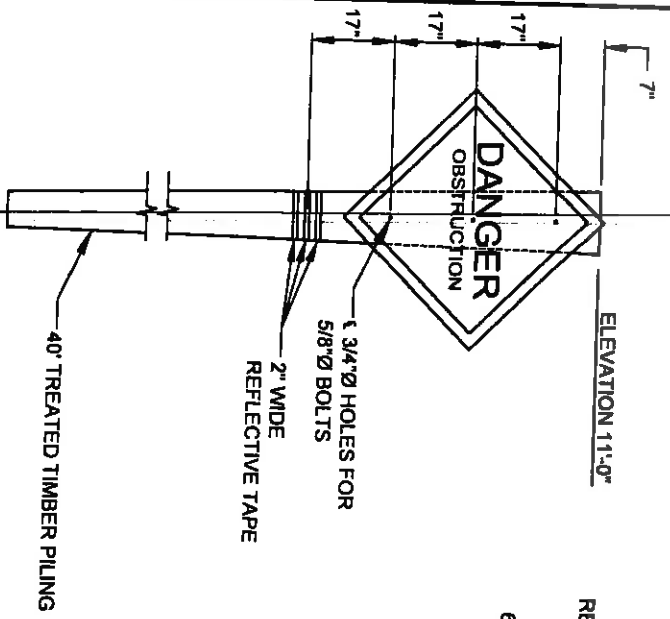
STATE PROJECT NUMBER: BA-43 (EB)

DATE: DECEMBER 12, 2012

FEDERAL PROJECT NUMBER: N/A

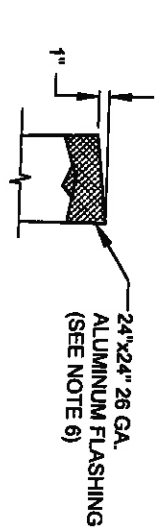
SHEET 34 OF 41

DRAWN BY: YC



9

**TEMPORARY WARNING SIGN DETAILS**  
NOT TO SCALE



**WARNING SIGN SIDE DETAIL**

- WARNING SIGN NOTES**
- TWENTY-FIVE (25) TEMPORARY WARNING SIGNS, INCLUDING TIMBER PILES, SHALL BE INSTALLED AT LOCATIONS SHOWN ON SHEETS 21 AND 23. THE 2" BORDER ON THE WARNING SIGN WILL BE REFLECTIVE MATERIAL OF ORANGE COLOR. THE LETTERING FIELD WILL BE A REFLECTIVE MATERIAL OF WHITE COLOR. THE LETTERING FOR THE SIGN SHALL BE BLACK. ALL SIGNS MUST MEET U.S. COAST GUARD STANDARDS. IN ACCORDANCE WITH 33 CFR 330.4 (a)(1) WHICH CAN BE DOWNLOADED AT [http://www.access.gpo.gov/nara/cfr/waisidx\\_0233cfr330\\_02.html](http://www.access.gpo.gov/nara/cfr/waisidx_0233cfr330_02.html)
  - NEOPRENE WASHERS SHALL BE PLACED BETWEEN THE SIGN AND THE PILING AT ALL POINTS OF CONTACT.
  - HARDWARE FOR TIMBER CONNECTIONS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SECTION 811.5 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS PUBLISHED BY THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, LATEST EDITION.
  - TIMBER PILES SHALL CONFORM TO SECTIONS 804 AND 1014 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS PUBLISHED BY THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, LATEST EDITION. PILES SHALL BE TREATED WITH A CREOSOTE SOLUTION CONFORMING TO AMPA P2 TO A MINIMUM RETENTION OF 20 PCF AND CAPPED ACCORDING TO LA DOT SPECIFICATION 812.06.
  - TIMBER PILING SHALL BE 40" IN LENGTH WITH A NOMINAL 12" DIAMETER BUTT AND 7" MINIMUM DIAMETER AT THE TIP.
  - THE TOP OF THE PILES SHALL BE COATED WITH COAL TAR EPOXY PAINT PRIOR TO PLACING CAP. THE PILE CAP SHALL BE ATTACHED USING ALUMINUM OR STAINLESS STEEL NAILS.

BY	DESCRIPTION	DATE
SA	REVISION 5	12/7/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

DESIGNED BY: SA	APPROVED BY: MAURY CHATELLER, P.E.
-----------------	------------------------------------

<p>ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70805 225-807-7700</p>	<p><b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b></p> <p>450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>
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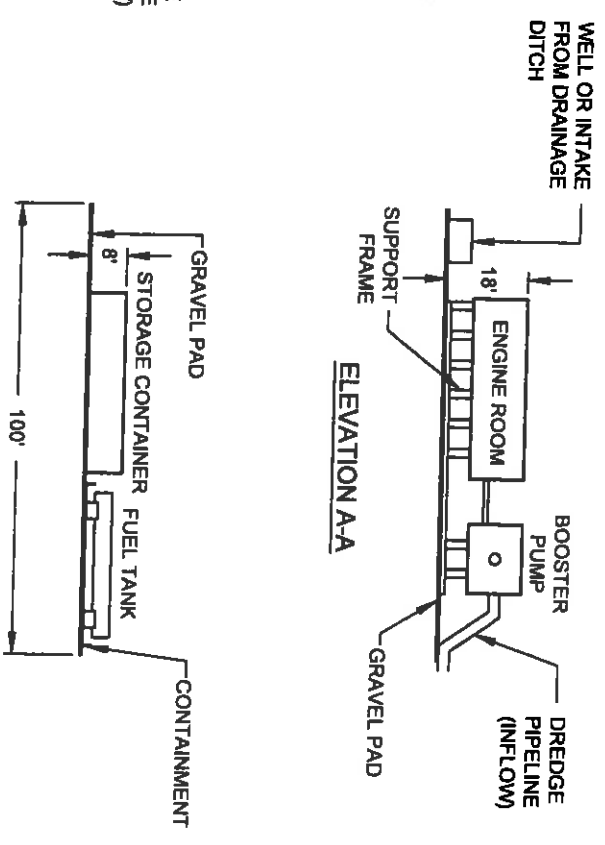
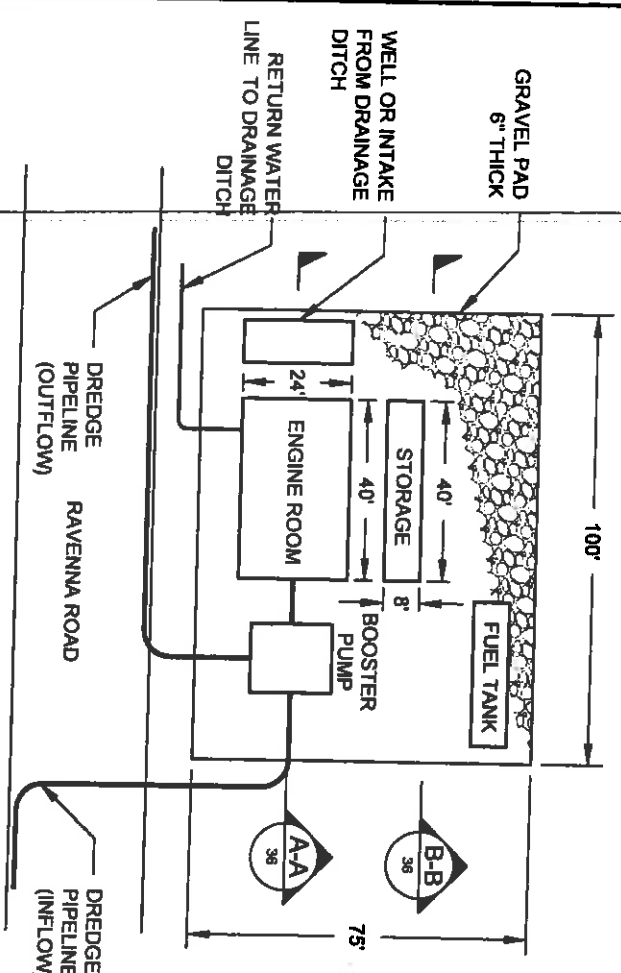
  

MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	TEMPORARY SHOULDER WARNING SIGN DETAILS
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STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
FEDERAL PROJECT NUMBER: N/A	SHEET 35 OF 41

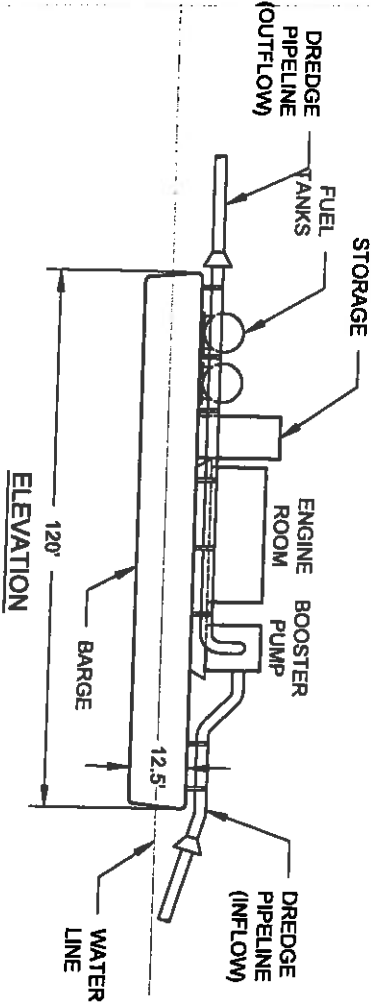
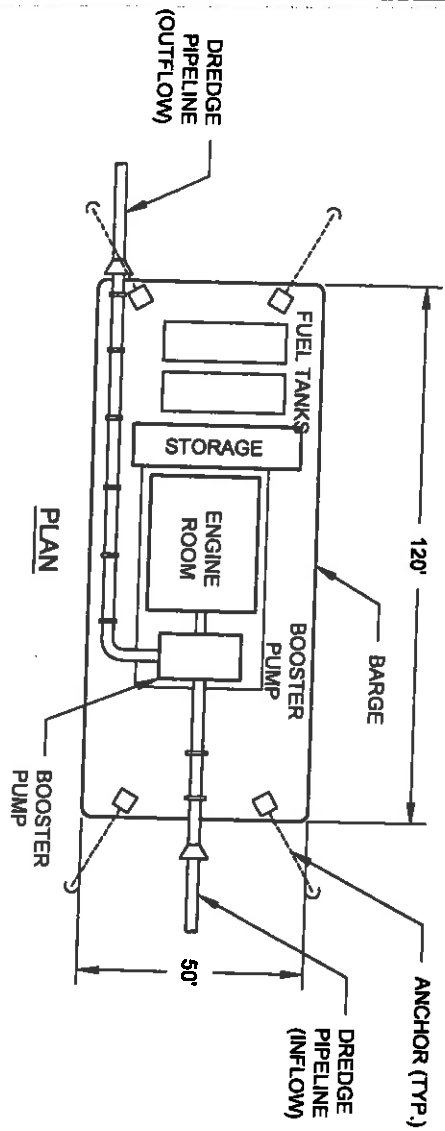




**10**  
LANDSIDE BOOSTER PUMP DETAILS  
NOT TO SCALE

NOTE:  
TYPICAL LANDSIDE BOOSTER SETUP. ACTUAL MAY VARY.

BY	DESCRIPTION	DATE	DESIGNED BY: SA	APPROVED BY: MAURY CHATELLIER, P.E.	STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
SA	REVISION 5	12/12/12		<b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b> 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	LANDSIDE BOOSTER PUMP PLAN AND ELEVATIONS
SA	REVISION 4	08/24/12				
SA	REVISION 3	03/09/12				
DRAWN BY: YC			DESIGNED BY: SA	APPROVED BY: MAURY CHATELLIER, P.E.	FEDERAL PROJECT NUMBER: N/A	SHEET 36 OF 41



**11**  
**16**  
**FLOATING BOOSTER PUMP DETAILS**  
 NOT TO SCALE

NOTE:  
 TYPICAL FLOATING BOOSTER SETUP.  
 ACTUAL MAY VARY.

BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/08/12

**MAURY & RICHTER**  
 ONE AMERICAN PLACE  
 301 MAIN STREET, SUITE 800  
 BATON ROUGE, LA 70803  
 225-927-7193

**COASTAL PROTECTION & RESTORATION AUTHORITY**

450 LAUREL STREET  
 BATON ROUGE, LOUISIANA 70801

DESIGNED BY: SA  
 APPROVED BY: MAURY CHATELLIER, P.E.

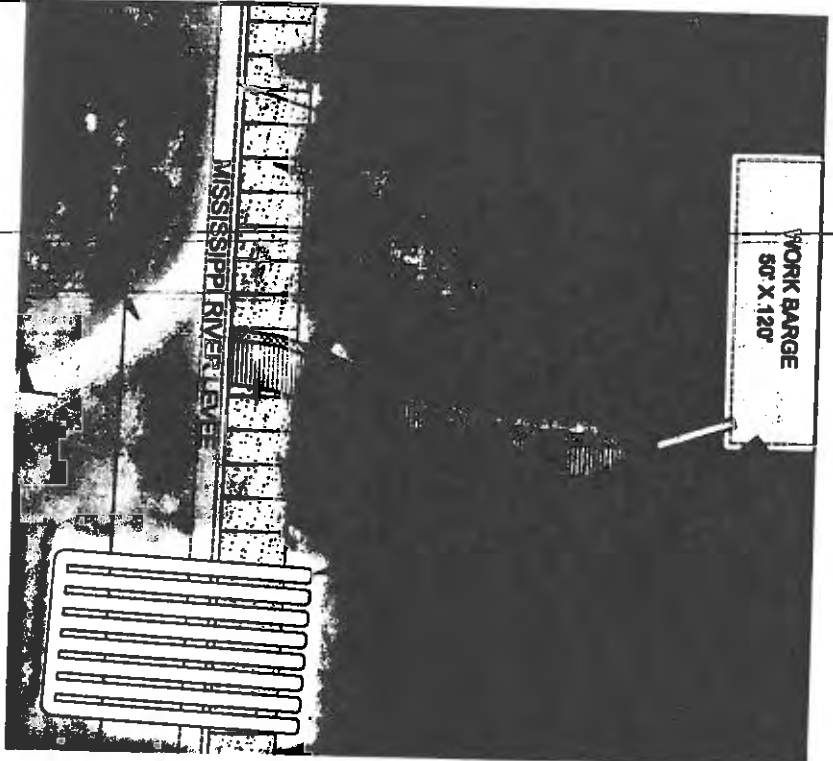
MISSISSIPPI RIVER  
 LONG DISTANCE SEDIMENT PIPELINE

FLOATING  
 BOOSTER PUMP  
 PLAN AND ELEVATIONS

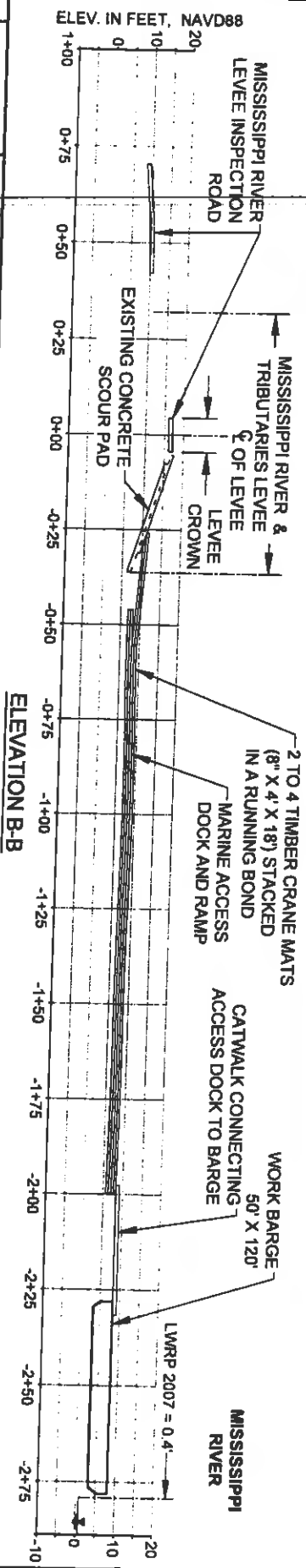
STATE PROJECT NUMBER: BA-43 (EB)  
 FEDERAL PROJECT NUMBER: N/A

DATE: DECEMBER 12, 2012  
 SHEET 37 OF 41

DRAWN BY: YC

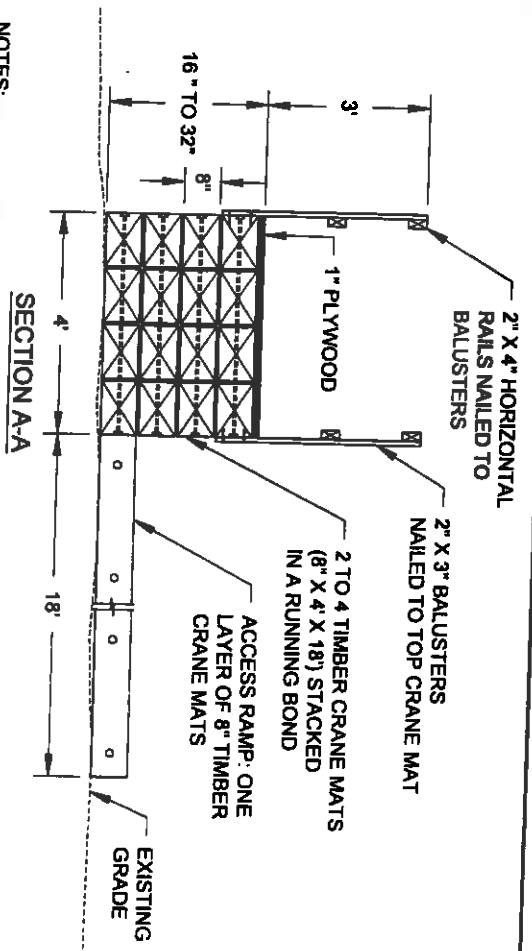


PLAN VIEW



**12** TEMPORARY MARINE ACCESS DOCK DETAILS  
 16 NOT TO SCALE

- NOTES:
1. EXISTING GRADES BASED ON JANUARY 2012 TBS SURVEY.
  2. TEMPORARY MARINE ACCESS DOCK WILL BE PLACED TO FACILITATE CONSTRUCTION PERSONNEL ACCESS TO THE MISSISSIPPI RIVER.
  3. ACCESS DOCK DETAILS BASED ON BA-39 PROJECT CONSTRUCTION. ACTUAL DETAILS MAY VARY BUT WILL HAVE TO BE INCLUDED IN THE CONTRACTOR'S WORK PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION AND PLACED WITHIN THE CONSTRUCTION LIMITS.
  4. ACCESS DOCK TO BE COMPLETELY REMOVED AFTER PROJECT IS COMPLETE.

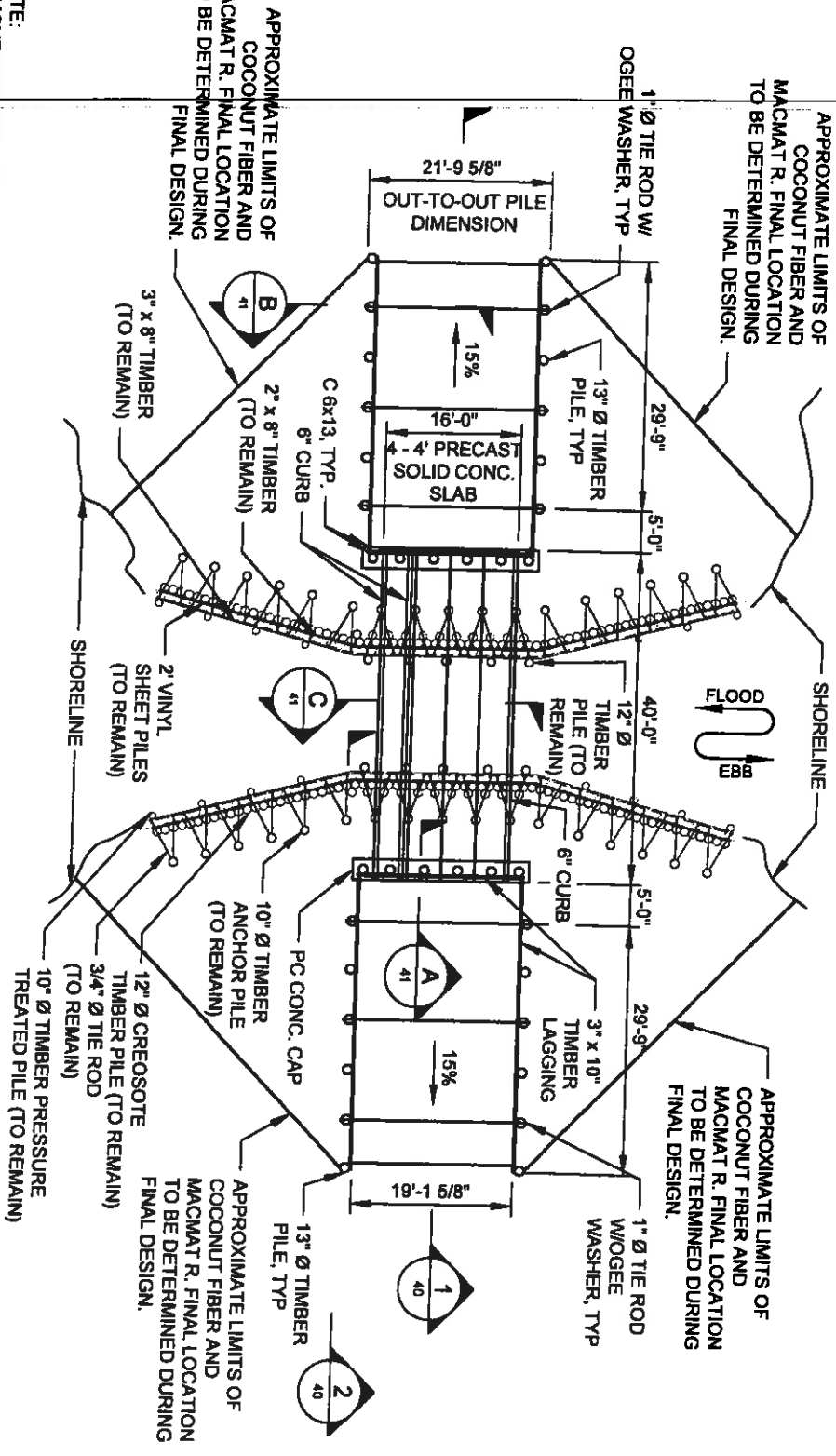


BY	DESCRIPTION	DATE	DESIGNED BY: SA	APPROVED BY: MAURY CHATELLER, P.E.	STATE PROJECT NUMBER: BA-43 (E9)	DATE: DECEMBER 12, 2012
SA	REVISION 5	12/12/12	<p>ONE AMERICAN PLACE            301 MAIN STREET, SUITE 800            BATON ROUGE, LA 70805            225-427-7193</p>	<p>450 LAUREL STREET            BATON ROUGE, LOUISIANA 70801</p>	<p>MISSISSIPPI RIVER            LONG DISTANCE SEDIMENT PIPELINE</p>	<p>TEMPORARY            MARINE ACCESS            DOCK DETAILS</p>
SA	REVISION 4	08/24/12				
SA	REVISION 3	03/09/12				
SA	REVISION 2	03/09/12				
SA	REVISION 1	03/09/12				
DRAWN BY: YC			<p>FEDERAL PROJECT NUMBER: N/A</p> <p>SHEET 38 OF 41</p>			

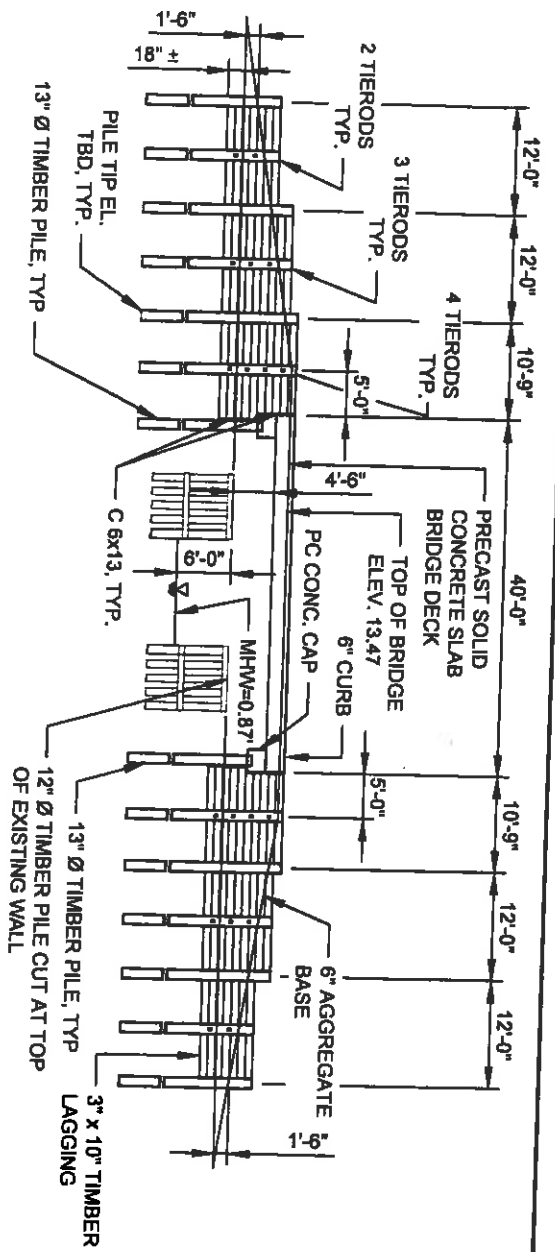


13 PROPOSED BRIDGE PLAN  
14 SCALE: 1" = 20'

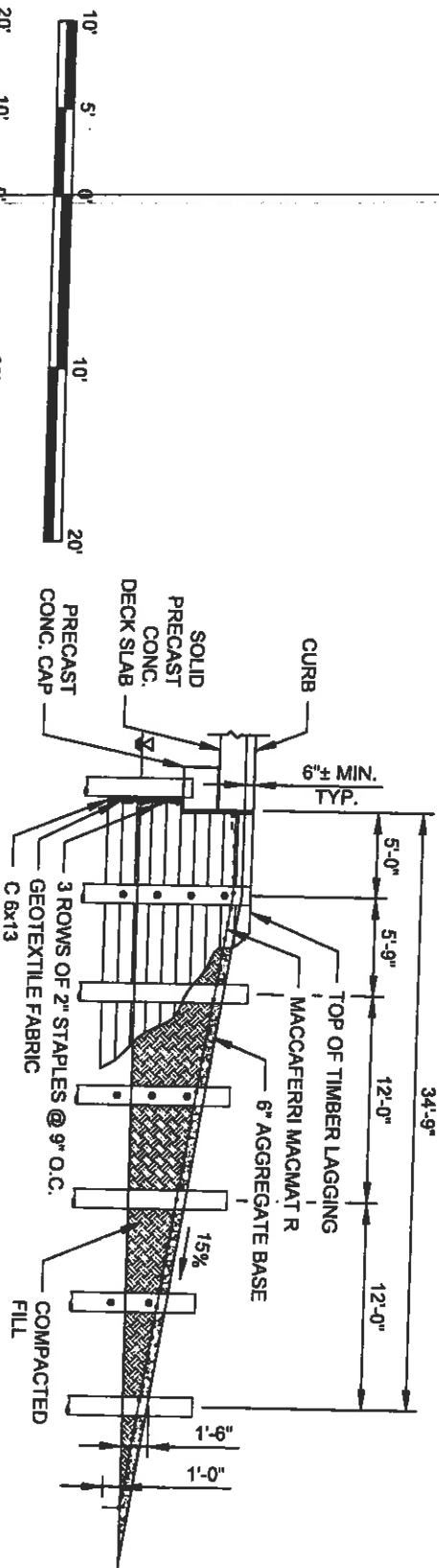
NOTE:  
REMOVE EXISTING METAL GRATE BRIDGE,  
PILES AND BEAMS ABOVE TOP OF BULKHEAD.



BY	DESCRIPTION	DATE	DESIGNED BY: SA	APPROVED BY: MAURY CHATELIER, P.E.	STATE PROJECT NUMBER: BA-43 (EB)	DATE: DECEMBER 12, 2012
SA	REVISION 5	12/12/12	<p>ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-387-7789</p>	<p><b>COASTAL PROTECTION &amp; RESTORATION AUTHORITY</b></p> <p>450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE</p>	<p>NEW BRIDGE/PIPE CROSSING DETAILS (SHEET 1 OF 3)</p>
SA	REVISION 4	08/24/12				
SA	REVISION 3	03/09/12				
DRAWN BY: VC						
DESIGNED BY: SA						
				FEDERAL PROJECT NUMBER: N/A	SHEET 39 OF 41	



1 PROPOSED BRIDGE ELEVATION  
SCALE: 1" = 20'



2 SECTION OF APPROACH  
SCALE: 1" = 10'



BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12



ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 800  
BATON ROUGE, LA 70825  
225-927-7700

DESIGNED BY: SA

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

APPROVED BY: MAURY CHATELLIER, P.E.

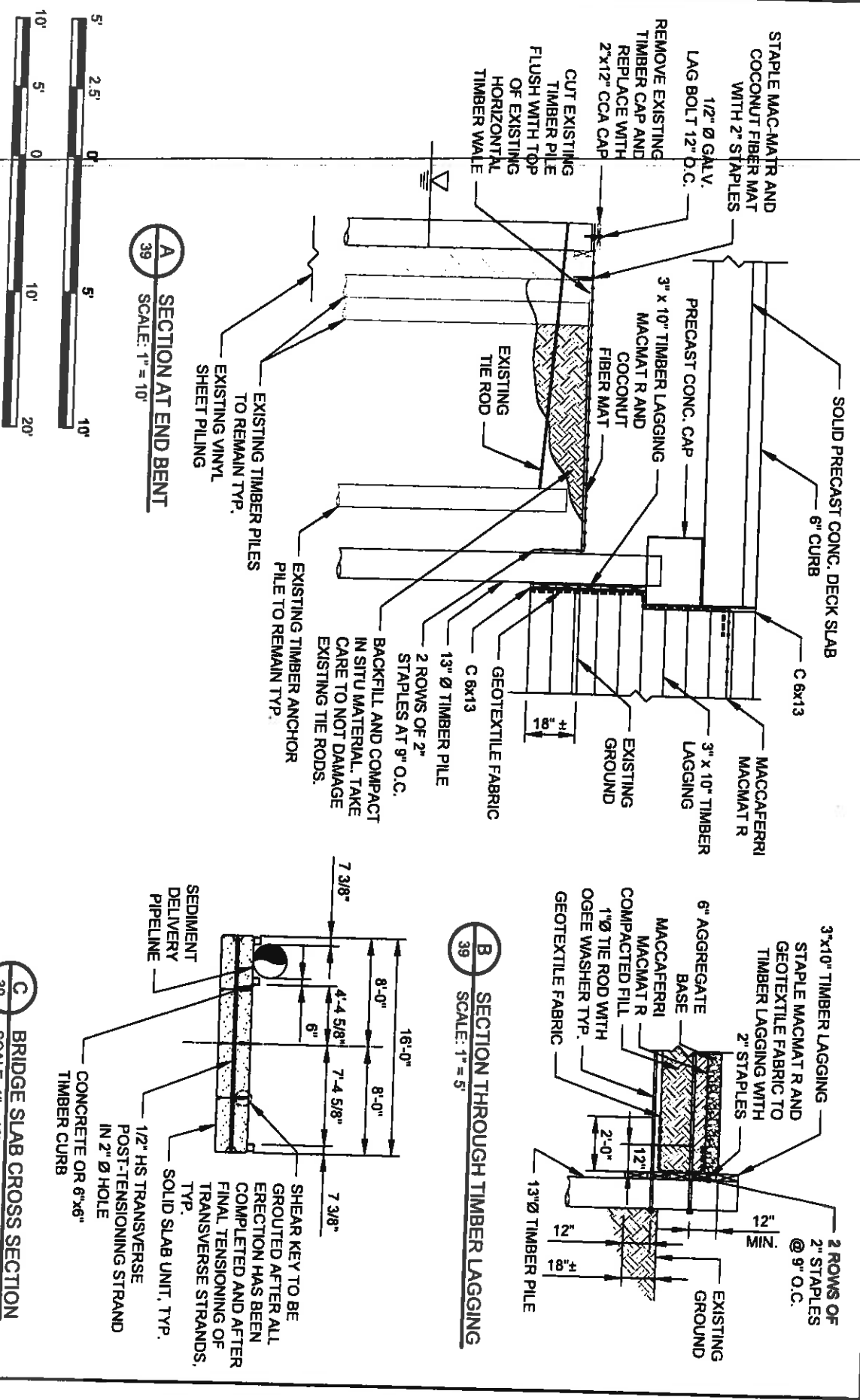
MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

STATE PROJECT NUMBER: BA-43 (EB)  
FEDERAL PROJECT NUMBER: N/A

NEW BRIDGE/ PIPE  
CROSSING DETAILS  
(SHEET 2 OF 3)

DATE: DECEMBER 12, 2012

SHEET 40 OF 41



BY	DESCRIPTION	DATE
SA	REVISION 5	12/12/12
SA	REVISION 4	08/24/12
SA	REVISION 3	03/09/12

DESIGNED BY: SA

**MAURY & MAURY**  
ONE AMERICAN PLACE  
301 MAIN STREET, SUITE 800  
BATON ROUGE, LA 70825  
225-927-1733

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

APPROVED BY: MAURY CHATELLIER, P.E.

MISSISSIPPI RIVER  
LONG DISTANCE SEDIMENT PIPELINE

STATE PROJECT NUMBER: BA-43 (EB)  
FEDERAL PROJECT NUMBER: N/A

NEW BRIDGE/PIPE  
CROSSING DETAILS  
(SHEET 3 OF 3)

DATE: DECEMBER 12, 2012  
SHEET 41 OF 41