



PROJECT COMPLETION REPORT

Little Lake Shoreline Protection & Marsh Creation Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction Lafourche Parish, Louisiana

CPRA Project No. BA-0037



**Prepared By
Hartman Engineering, Inc.**

July 2018

PROJECT COMPLETION REPORT

Little Lake Shoreline Protection & Marsh Creation Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

TABLE OF CONTENTS

1.0	Project Team	1
1.1	Project Owner	1
1.2	Project Managers/Contracting Officer	1
1.3	Federal Agency & Sponsor	1
1.4	Project Design	1
1.5	Prime Construction Contractor	1
1.6	Project Construction Administration And Inspection	2
2.0	Location & Description Of Projects As Approved For Construction	2
3.0	Final, As-Built Features Boundaries and Resulting Acreage.....	2
4.0	Key Project Cost Elements.....	2
5.0	Items of Work	4
6.0	Construction and Construction Oversight.....	5
7.0	Major Equipment Used	5
8.0	Construction Sequences and Activities	6
9.0	Construction Change Orders and Field Changes	7
10.0	Pipeline and Other Utility Crossings	9
11.0	Safety and Accidents	9
12.0	Project Issues and Discussion	10
13.0	Significant Construction Dates	11

LIST OF APPENDICES

Appendix A:	CWPPRA Fact Sheet
Appendix B:	Photographic Log of Project
Appendix C	Field Order No. 1
Appendix D	Construction Sequences and Activities - Construction Schedule
Appendix E	Change Order No. 1 & Change Order No. 2

PROJECT COMPLETION REPORT (BA-0037)

PROJECT NAME: Little Lake Shoreline Protection & Marsh Creation (BA-0037)
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction,
Lafourche Parish, Louisiana

CPRA / STATE PROJECT NO. BA-37

Report Date: July 2018

By: Hartman Engineering, Inc.

1. Project Team

1.1 Project Owner

Coastal Protection and Restoration Authority
150 Terrance Avenue
Baton Rouge, LA 70802

National Oceanic and Atmospheric Administration
NOAA Restoration Center
5304 Flanders Drive, Suite B
Baton Rouge, LA 70808

1.2 Project Managers/Contracting Officer

CPRA Engineering Supervisor,
Operations Division

CPRA Construction Project Manager
CPRA Monitoring Manager

Brian J. Babin, P.E.	985-447-0956
Benjamin Hartman, P.E.	985-449-5073
Glen Curole	985-447-0995

1.3 Federal Agency & Sponsor

Federal Agency Project Manager
Federal Agency Project Manager

Donna Rogers – NOAA	225-636-2095
Jennifer Smith – NOAA	225-954-6654

1.4 Project Design

CPRA Thibodaux Field Office
1440 Tiger Drive, Suite B
Thibodaux, La. 70301

Benjamin Hartman, P.E.	985-449-5073
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1.5 Prime Construction Contractor

LeBlanc Marine, LLC
43001 Rex J. Champagne Road
New Iberia, La. 70560

Ben LeBlanc, President	337-364-4701
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La. Heavy Construction License No. 56742
Project Manager

Jeff Mizzi	337-364-4701
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PROJECT COMPLETION REPORT (BA-0037)

1.6 Project Construction Administration & Inspection

Hartman Engineering, Inc. 527 West Esplanade Ave., Suite 300 Kenner, LA 70065	Jared Monceaux, P.E., Pres.	225-313-4617 504-466-5667
HEI Construction Administration	Rolland A. Mura, P.E. Sr. Project Manager	504-466-5667
HEI Resident Project Representative/ Construction Inspection	Jamie Lambert	504-466-5667

2. Location & Description Of Projects As Approved For Construction By Task Force.

The Little Lake Shoreline Protection and Marsh Creation, Segment 1 and 2 Demolition & Perpendicular Rock Dike Construction Project BA-0037, Lafourche Parish, Louisiana, is located near the southern and southwestern shorelines of Bayou L'Ours and Little Lake, respectively. The Little Lake Project (BA-0037) is a shoreline protection and marsh creation project located in the central Barataria Basin in Lafourche Parish, Louisiana. The Little Lake project area and protected shoreline and marsh are generally bounded by Bay L'Ours to the north and west, Little Lake to the east, and Brusle Lake to the south. The State of Louisiana owns the water bottom around the project features.

The site is accessible only by boat. The nearest boat launch is a private launch controlled by the landowner of Clovelly Farms. Entry to the Clovelly Farms property is from the intersection of Louisiana Highway 308 and East 36th Street in Cut Off, Louisiana. The boat launch is located in the northeast corner of Clovelly Farms property on the Clovelly Canal located approximately 4.5 miles east of Highway 308. Access for marine construction vessels and barges is via the Gulf Intracoastal Waterway to the north of the project site.

The purpose of the project is to prevent erosion and reduce the land-loss rates in the project vicinity over the 20-year life of the project along the Little Lake shoreline. The project consisted of constructing a shoreline protection rock dike in open water along the shoreline of Little Lake using rock, recovered from the original Segments No. 1 and No. 2 of the existing rock dike, to construct a new dike perpendicular to the existing dike as shown on the project drawings and with the Additive Alternative to extend the perpendicular dike with new rock as allowable within the project budget.

The project was sponsored by the United States Department of Commerce / National Ocean and Atmospheric Administration (NOAA) National Marine Fisheries Services (NMFS).

There were no known existing oyster leases near the project area or within the boundaries of the project site. No oyster lease related restrictions were included in the project Bid documents or in the Special Provisions of the Project Specifications.

(Refer to Appendix A for the original BA-37 CWPPRA Fact Sheet.)

PROJECT COMPLETION REPORT (BA-0037)

3. Final, As-Built Features, Boundaries and Resulting Acreage (use attachments if necessary).

The project was constructed as described above. For additional information see project As-Built Drawings. See Appendix B for a Photographic Log of the project, Week1 through Week 4.

The project removed, reclaimed, and re-purposed rock from Segment No. 1 and a portion of Segment No. 2 from the BA-37 dike structure over a length of 870 linear feet. All rock was reclaimed and removed from above the existing mud line or -2.0' NAVD88, which ever was lower.

Based on the Pre-Construction Survey, the layout of new Perpendicular dike was shifted eastward approximately 150 feet. This modification was made through Field Order No. 1 and was at no additional cost to the Owner. See Appendix C for Field Order No. 1.

This project created over 1,000 feet on rock dike using reclaimed and new rock to protect adjacent marsh land. Approximately 6,532 tons of rock reclaimed from Segments No. 1 and No. 2 and 1,173 tons of new 250 LB Class rock were used to construct the new Perpendicular Dike. Additional Permanent Warning Signs were installed to mark the new work and the original footprint of Segments No. 1 and No. 2.

4. Key Project Cost Elements*

Cost Element	CPRA Project Report Estimates Data	Cost Incurred as of Construction Completion & Final C.O. (July 6, 2018)
Construction	\$679,100.00	\$477,501.00
E & D	N/A	N/A
Land Rights	N/A	N/A
Construction Administration	\$24,950.00	\$21,325.00
Resident Project Representative**	\$62,560.00	\$22,440.00
Monitoring	N/A	N/A
O & M	N/A	N/A
Total	\$766,610.00	\$521,266.00

*Does not include Federal Sponsor administrative costs.

**Estimate based on 90-day Construction Contract completion period.

PROJECT COMPLETION REPORT (BA-0037)

5. Items of Work

Schedule of Items										
Item No.	Work	Est. Quantity	Unit	Estimated Unit Price	Estimated Amount	Bid Quantity	Bid Unit Price	Bid Amount	As-Built Quantity	As-Built Amount
Base Bid										
1	Mobilization and Demobilization	1	LS	\$100,000.00	\$100,000.00	1	\$115,000.00	\$115,000.00	1	\$115,000.00
2	Rock Recovery and Placement	9,000	TON	\$35.00	\$315,000.00	9,000	\$19.00	\$171,000.00	6532	\$124,108.00
3	Flotation Dredging	1	LS	\$57,000.00	\$57,000.00	1	\$33,000.00	\$33,000.00	1	\$33,000.00
4	Woven Geotextile	4,500	SQ. YDS.	\$6.00	\$27,000.00	5,500	\$5.50	\$30,250.00	5,500	\$30,250.00
5	Temporary Warning Signs	8	EA.	\$1,100.00	\$8,800.00	8	\$980.00	\$7,840.00	8	\$7,840.00
6	Exist. Waning Sign Removal	3	LS	\$1,100.00	\$3,300.00	3	\$400.00	\$1,200.00	0	\$0.00
7	Permanent Warning Signs*	5	EA.	\$3,000.00	\$15,000.00	4	\$980.00	\$3,920.00	10	\$9,800.00
8	Perpendicular Rock Dike Settlement Plate	1	LS	\$3,000.00	\$3,000.00	1	\$1,000.00	\$1,000.00	1	\$1,000.00
9	Construction Surveys	1	LS	\$60,000.00	\$60,000.00	1	\$25,000.00	\$25,000.00	1	\$25,000.00
10	Addition for 250 LB Class Rock**	900	TON	\$100.00	\$90,000.00	900	\$111.00	\$99,900.00	1173	\$130,203.00
11	Replace. Alum. Plate at 2 Perm. Warning Signs *	0	EA	0	0	0	0	0	2 @ \$650 each	\$1,300.00
CPRA Estimate: Base Bid: \$589,100.00;						Original Base Bid Amt.: \$388,210.00		As-Built Amt.: \$477,501.00		
Additive Alternate Amount: \$90,000.00. Total Estimate: \$679,100.00						Additive Alt. 1: \$99,900.00				
						Total Bid w/Alternative: \$488,110.00				

*CO No.1 Add 6 Additional Permanent Warning Signs.

*CO No.1 Replace Aluminum Plate on 2 Permanent Warning Signs.

**CO No.2 Add 273 tons, 250 LB Class Rock.

PROJECT COMPLETION REPORT (BA-0037)

6. Construction and Construction Oversight

Prime Construction Contractor	LeBlanc Marine, LLC
Surveyor	Francis Fortier, P.L.S. No. 4769
Subcontractor	N/A
Original Construction Contract	\$488,110.00
Change Orders No.1 (Increase)	\$ 7,180.00
Change Orders No.2 (Decrease)	-\$17,789.00
Final Construction Contract	\$477,501.00

**Construction Administration & Resident Inspection –
Engineering Consultant: Hartman Engineering, Inc.**

Construction Administration and Resident Inspection Amount: \$87,510.00 (NTE)

7. Major Equipment Used

CAT 320 Excavator with Vibro Hammer

CAT 345 Long Reach Excavator

CAT 385 Excavator with Clam Bucket

2 Rock Barges – M707 & M710, chartered from McDonough Marine, Inc.

Rock Barge – DH9531, chartered from McDonough Marine, Inc. for additional new rock.

Spud Barge

Mud Tug to move barges

Crew Boat ‘Miss Riley’ for Rock Dike Construction

Office Barge/Living Quarters and Safe Haven for Crew

Motored Skiff

Survey Equipment:

Leica GS 14 Base with Satel 35w radio

Marine Magnetic Explorer Magnetometer

Lecia GS 14 Rover and Sonarmite Echo-sounder

Topcon Hiper V Survey Equipment

PROJECT COMPLETION REPORT (BA-0037)

8. Construction Sequences and Activities

The Owner's scheduled contract time for the project was 90 days plus 30 days for Alternative 1 for delivery and placement of additional 900 tons of 250 LB Class Rock. The Notice to Proceed was issued for April 24, 2018. With acceptance of Alternative 1 and the resultant 120-day construction period, the scheduled completion date was set on August 22, 2018. All Punch List items were completed before the final 'walk through' on July 6, 2018.

See Appendix D for the Contractor's original Construction Schedule listing the significant construction tasks, sequences, and activities over the 120-day contract time. The Contractor was able to compress the original schedule and complete all work in approximately 70 calendar days from the NTP while completing Alternative 1 and transporting in and placing 1,173 tons of additional rock to extend the new Perpendicular DiKE.

- May 10, 14, & 17, 2018: Pre-Construction Surveys.
- May 31, 2018: Contractor, LeBlanc Marine mobilized on site.
- June 2, 2018: Deck barges mobilized at the project site positioned.
- June 4, 2018: Survey and stakeout temporary sign locations and access dredge corridor.
- June 5, 2018: Began installing temporary warning signs and continued construction layout.
- June 6, 2018: Began access dredging and removing the rock from 0+00 to 2+40. Set more temporary pilings (4) on the south side of existing rock along new perpendicular rock.
- June 7, 2018: Began putting out geotextile and removing rock and started installing rock on perpendicular rock structure.
- June 8, 2018: Removed rock from station 8+32 to station 4+00. Installed Barge 1 (M707) rock and swapped to barge #2 (M710).
- June 9, 2018: Rock seems to be settling drastically, pushed up mud/material out of the water; placed second roll of fabric out to station 5+00.
- June 10, 2018: Start to unload Barge M707.
- June 12, 2018: Unloading Barge M707
- June 13, 2018: Completed rock removal of Segment 2, yielded 3,310 tons of rock; did not get the tonnage/footage as original plan, and caused more movement/ton with less efficiency.
- June 20, 2018: Continue to place rock on perpendicular dike; checking breakwater to make sure lines and grades are good.
- June 22, 2018: Continued to install rock from barges; new rock barge to arrive from the Intarcoastal Waterway.
- June 23, 2018: Placed barge rock to fill in gaps in the survey; worked to get new rock barge as close as possible to the site. Sent an empty barge to meet the new rock barge to offload and reduce tonnage to get into Little Lake.
- June 24, 2018: Set new rock on dike Station 9+65 to– Station 9+90.

PROJECT COMPLETION REPORT (BA-0037)

- June 25, 2018: Set out geo-fabric for additional new rock at dike Station 9+90 – Station 10+75; made up Barges M707 and M710 to return to supplier; returned Cat 385 to Contractor yard.
- June 25 thru June 28, 2018: Post-Construction Surveys.
- June 26, 2018: Installing piles and Warning Signs; surveyor marking sign locations.
- June 27, 2018: CPRA on site for ‘walk through’ to develop Punch List; installing piles for Warning Signs.
- June 28, 2018: Finished installing piles for Warning Signs for Segments 1 & 2; installing aluminum signs; surveyor taking cross-sections of work. Construction of the rock dike complete.
- June 29, 2018: Installed last of Permanent Warning Signs, finished removing dredge material to access corridor and completed backfill.
- July 2, 2018: Contractor removing equipment, vessels, and barges from the project site.
- July 6, 2018: Final CPRA/NOAA ‘walk through’ for Punch List items, all complete.

The Contractor’s compressed work schedule and early completion of the contract tasks resulted in saving to CPRA with reduced the time and days required for the Resident Project Representative to be on-site and the time required for contract and construction administration.

See the Contractor’s Daily Reports and Resident Project Representative Reports for additional details and photographs of project construction tasks, sequences and activities. The Reports were submitted to CPRA during the course of the project. Inspection services required Resident Project Representatives (RPR) to be present up to 10 hours per day when project work tasks were being performed. Appendix B provides selected photographs of the construction activities.

PROJECT COMPLETION REPORT (BA-0037)

9. Construction Change Orders and Field Changes.

Change Order No. 1: (June 21, 2018)

Change and increase Contract Item No. 7, Permanent Warning Signs Quantity from 4 Signs to 10 Signs Total, an increase of 6 Permanent Signs, with no increase in Contract Time. See Appendix E for Change Order No. 1.

ITEM NO.	ITEM	UNIT	ORIGINAL QUANTITY	UNIT COST	ORIGINAL BID AMOUNT	ADDITIONAL QUANTITY	ADDITIONAL AMOUNT	BID ITEM TOTAL \$ AMOUNT
7	Permanent Warning Signs	EA	4	\$980.00	\$3,920.00	6	\$5,880.00	\$9,800.00
TOTAL:							\$5,880.00	

Add Contract Item No. 11, Replace Aluminum Plate, Permanent Warning Signs on Western End at Locations Shown on Plan Sheet 4A (Rev. B).

ITEM NO.	ITEM	UNIT	ORIGINAL QUANTITY	UNIT COST	ORIGINAL BID AMOUNT	ADDITIONAL QUANTITY	ADDITIONAL AMOUNT	BID ITEM TOTAL \$ AMOUNT
11	Replace Aluminum Plate, at 2Permanent Warning Signs	EA	0	\$650	\$0.00	2	\$1,300.00	\$1,300.00
TOTAL:							\$1,300.00	

Change Order No. 1 Total: \$7,180.00

PROJECT COMPLETION REPORT (BA-0037)

Change Order No. 2: (July 6, 2018)

Final/Balancing Change Order

Decrease the total Contract Value from Change Order No.1 by -\$17,789.00 from \$495,290.00 to \$477,501.00, with no increase in project construction time. The original Contract amount was \$488,110.00. See Appendix E for Change Order No. 2.

ITEM NO.	ITEM	UNIT	BID QTY.	UNIT \$ COST	TOTAL BID AMOUNT	INSTALLED QUANTITY	CHANGED \$ AMOUNT	FINAL \$ AMOUNT
1	Mobilization and Demobilization	LS	1	\$115,000	\$15,000.00	1	0	\$115,000.00
2	Rock Recovery and Placement	TON	9,000	\$19.00	\$171,000.00	6.532	\$46,892.00	\$124,108.00
3	Flotation Dredging	LS	1	\$33,000	\$33,000.00	1	0	\$33,000.00
4	Woven Geotextile Fabric	SY	5,500	\$5.50	\$30,250.00	5,500	0	\$30,250.00
5	Temporary Warning Signs	EA	8	\$980.00	\$7,840.00	8	0	\$7,840.00
6	Existing Warning Sign Removal	EA	3	\$400.00	\$1,200.00	0	-\$1,200.00	\$0
7	Permanent Warning Signs	EA	4	\$980.00	\$3,920.00	10	\$5,880.00	\$9,800.00
8	Perpendicular Rock Dike Settlement Plate	EA	1	\$1,000.00	\$1,000.00	1	0	\$1,000.00
9	Construction Surveys	LS	1	\$25,000	\$25,000.00	1	0	\$25,000.00
10	Addition for 250 LB Class Rock	TON	900	\$111.00	\$99,900.00	1173	\$30,303.00	\$130,203.00
11	Replace Alum Plate at 2 Permanent Warning Signs	EA	0	\$650.00	\$0	2	\$1,300.00	\$1,300.00
TOTALS:					\$488,110.00	---	\$10,609.00	\$477,501.00

Net Final Contract Amount: \$477,501.00

PROJECT COMPLETION REPORT (BA-0037)

Field Order No. 1: (May 22, 2018)

The purpose of Field Order is to adjust the Contract to reflect the following changes: Based on the review of the Pre-Construction Survey, CPRA and NOAA wished revise the alignment of the new perpendicular dike to shift the dike alignment closer to the existing fringe marsh in the near vicinity of the project.

Based on the Pre-Construction Survey, the last three centerline coordinates of the Perpendicular Rock Dike shown on Sheet 14 of the Construction Plans were shifted eastward approximately 150 linear feet. Sheet 6 was modified to reflect the new alignment and bathymetric survey data.

This Field Order No. 1 modification was at no additional cost. The Owner reserved the right to shift the alignment landward based on the Pre-Construction Survey per Note on Plan Sheet 14. See Appendix C for Field Order No. 1.

10. Pipeline and Other Utility Crossings.

	<u>Structure</u>	<u>Owner</u>	<u>Rep. To Contact</u>
1.	4" Pipeline	Kinetica	Not Available
2.	24" Pipeline	British Petroleum	Jerry Erceg (504) 393-6285 Alt.: Al Davis (504) 393-6282
3.	12" Pipeline	Plains	Not Available
4.	Land Owner / Clovelly Farms	Landowner Representative (Randy Moertle & Associates, Inc.)	Randy Moertle (985) 856-3630

11. Safety and Accidents.

The Contractor, LeBlanc Marine, LLC, submitted a Safety & Environmental Management System program document that included the following topics:

- Purpose
- Annual Goals & Objectives
- Safety & Environmental Statement
- Environmental Management Plan
- Job Hazard Analysis (JSEA Program)
- Human Factor Considerations (BBS Program)
- Management of Change

PROJECT COMPLETION REPORT (BA-0037)

- Standard Operating Procedures
- Safe Work Practices
- Employee Training
- Pre-Start-up Review
- Emergency Response & Control Plan
- Investigation of Incidents
- Internal Audits
- Recordkeeping & Documentation
- Safety Manual – Table of Contents
- EMR Letter – Past 3 Years
- OSHA Logs – Past 3 Years

There were no accidents reported during the Little Lake Shoreline Protection / Dedicated Dredging near Round Lake Project.

12. Project Issues and Discussion

1. Issue: Reclaimed Rock

Discussion: The estimated quantity of rock recovery from Segments No. 1 and No. 2 was 9000 tons. The final quantity recovered and place in the construction of the new Perpendicular Dike was 6,532 tons.

2. Issue: Additional 250 LB Class Rock

Discussion: Based on the Contractor's bid unit price for Alternative 1 - Bid Item 10, Addition for 250 LB Class Rock and the project funding, the Owner accepted the Alternative 1 for 900 tons of rock for placement for the Perpendicular Dike. During the course of the work, the Contractor offered to provide and place additional 250 LC Class rock at the bid unit price to extend the Perpendicular Dike. After evaluation, the Owner accepted 273 tons of additional rock for placement. With the placement of the Alternative 1 rock and the additional accepted rock, the Perpendicular Dike was constructed to a final length of approximately 1065 linear feet. The Owner's estimate for the Perpendicular Dike using only the reclaimed rock was only 500 to 800 linear feet.

3. Issue: Permanent Warning Signs

Discussion: During the course of the work, the Owner in discussions with the Federal Sponsor decided to add additional permanent warning signs along the original footprint of Segments No.1 and No. 2. The decision was based in part on potential low water conditions, commercial and recreational vessel traffic in the area, and input from the Contractor and the project inspector. Rock from the two segments was degraded as specified to the existing mud line or to -2.0' NAVD88, whichever was lower.

PROJECT COMPLETION REPORT (BA-0037)

4. Issue: Project Construction Time

Discussion: For this small project, the allowance of 120 days to complete the work, including Alternative 1, permitted the Contractor to provide better prices for the work as the contractor would use the BA-0037 project as ‘filler’ work to keep crews working between larger projects.

13. **Significant Construction Dates**: To be filled out by CPRA Construction Project Manager or Contracting Officer for construction for Agency responsible for construction.

ACTION	DATE
Pre-Bid Conference (Mandatory)	March 01, 2018
Bid Opening	March 15, 2018
Construction Contract (CPRA Signed)	April 16, 2018
Pre-Construction Conference	April 24, 2018
Notice to Proceed	April 24, 2018
Mobilization	May 31, 2018
Construction Start	June 4, 2018
Construction Completion	June 29, 2018
Final Acceptance	July 16, 2018

If different bids are taken, repeat this table to individually reflect each bid and attach tables. (Not Applicable)

Other significant Project Dates

CLOSEOUT ACTIVITY	DATE
Project Implementation closeout**	
Start of Preconstruction Monitoring***	
Preconstruction Aerial Photography	
Monitoring Plan Completion***	

** Final implementation closeout is made by either the CPRA Project Manager or the NOAA Contracting Officer depending on which organization had lead role for construction of project.

*** To be completed by CPRA Project Manager.

PROJECT COMPLETION REPORT

**Little Lake Shoreline Protection & Marsh Creation
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction
BA-0037**

APPENDICES

PROJECT COMPLETION REPORT

**Little Lake Shoreline Protection & Marsh Creation
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction
BA-0037**

APPENDIX A

CWPPRA Fact Sheet



Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake (BA-37)

Project Status

Approved Date: 2002 **Project Area:** 1,373 acres
Approved Funds: \$23.2 M **Total Est. Cost:** \$29.5 M
Net Benefit After 20 Years: 713 acres
Status: Completed
Project Type: Shoreline Protection and Marsh Creation
PPL #: 11

Location

The project is located in the central Barataria Basin in Lafourche Parish, Louisiana. The project area is bounded by the East and West Forks of Bayou L'Ours and the southern shoreline of Little Lake from Plum Point westward to Breton Canal.

Problems

The Little Lake mapping unit has high wetland loss caused by shoreline erosion, subsidence, and channel construction. The project is located in an area protecting approximately 3,000 acres of fragile interior marshes between the Little Lake shoreline and Bayou L'Ours Ridge. Project area wetlands are subject to high shoreline erosion rates (20 to 40 feet per year) and subsidence deteriorating interior marshes. Without construction, the project area marsh was expected to convert to mainly open water over the next 20 years.



This 24-inch dredge pipe is actively rebuilding marsh by depositing sediment dredged from the lake. As the project progresses, the placed sediment will reach an elevation conducive for growing and sustaining marsh vegetation.

Restoration Strategy

The project's goals were to: 1) prevent erosion along roughly 4 miles of Little Lake shoreline; 2) create 488 acres of intertidal wetlands along the Little Lake shoreline; 3) nourish and maintain 532 acres of intermediate marsh; and 4) reduce land loss rates by 50 percent over the 20-year life of the project.

The project consists of two major features, a shoreline protection structure and a marsh creation and nourishment area. The 25,976 ft foreshore rock dike was constructed by placing rocks on top of a geotextile foundation. The dike was constructed using three lifts and include gaps every 1,000 to 1,500 ft for fisheries access.

The marsh creation and nourishment phase of this project consisted of containment dikes, marsh creation in open water areas, and marsh nourishment over existing marsh. Approximately, 920 acres of marsh were created and nourished through placement of 3,165,121 cubic yards of sediment from Little Lake. The marsh creation area was planted with 17,000 *Spartina alterniflora* (smooth cordgrass) plugs.

Progress to Date

This project was selected for Phase I (engineering and design) funding at the January 2002 Task Force meeting and for Phase II (construction) funding in November 2003. Construction was completed in 2007.

The project is listed on Priority Project List 11.

For more information, please contact:



Federal Sponsor:
National Marine Fisheries Service
Baton Rouge, LA
(225) 778-7380

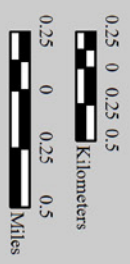


Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake (BA-37)

- Rock Dike
- Earthen Containment Dike
- Borrow Site
- Marsh Creation
- Project Boundary



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

Backround Imagery:
2012 Digital Orthophoto Quarter Quadrangle
Map Date: September 28, 2015
Map ID: USGS-NWRC 2015-11-0045
Data accurate as of: September 1, 2015

PROJECT COMPLETION REPORT

**Little Lake Shoreline Protection & Marsh Creation
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction
BA-0037**

APPENDIX B

PHOTOGRAPHIC LOG

PROJECT COMPLETION REPORT













Little Lake Shoreline Protection & Marsh Creation (BA-0037)

Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B

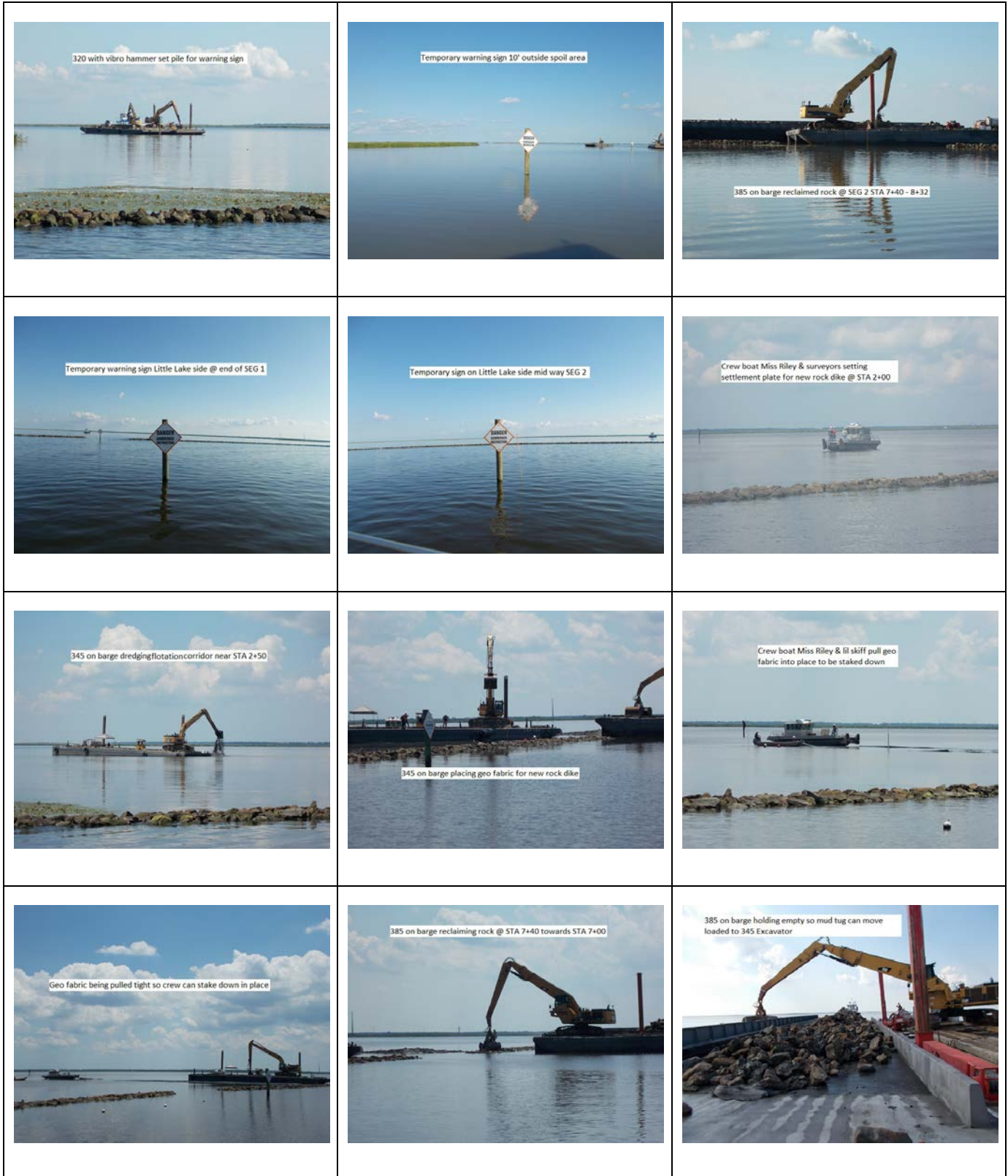
PHOTOGRAPHIC LOG

Week 1 Ending - June 9, 2018

 <p>CAT 320 Excavator with Vibro Hammer & Piles for temp Warning signs</p>	 <p>CAT 385 with Clam Bucket on Spud Barge</p>	 <p>CAT 345 Long Reach used to place reclaimed rock</p>
 <p>House Boat "CHATEAU" used as Safe Haven & living quarters for crew</p>	 <p>Crew placing 50' pile for warning sign with 320 with vibro hammer</p>	 <p>385 with clam bucket reclaiming rock @ SEG 2 STA 7+40 - STA 8+32 to make passage way to move in place to build new rock dike</p>
 <p>385 with clam bucket & loaded barge @ STA 7+40 - STA 8+32</p>	 <p>345 on barge placing dredged material in spoil area</p>	 <p>345 on barge dredging & placing material in spoil area</p>
 <p>Mud tug moving 320 with vibro hammer into place to set pile for warning sign</p>	 <p>Crew boat Miss Riley worker placing warning sign on pile</p>	 <p>320 with vibro hammer placing 50' pile for warning sign, barge with 320 attached to barge with 345 to help get in location to set pile area shallow</p>

PROJECT COMPLETION REPORT
Little Lake Shoreline Protection & Marsh Creation (BA-0037)
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B















PROJECT COMPLETION REPORT

Little Lake Shoreline Protection & Marsh Creation (BA-0037)

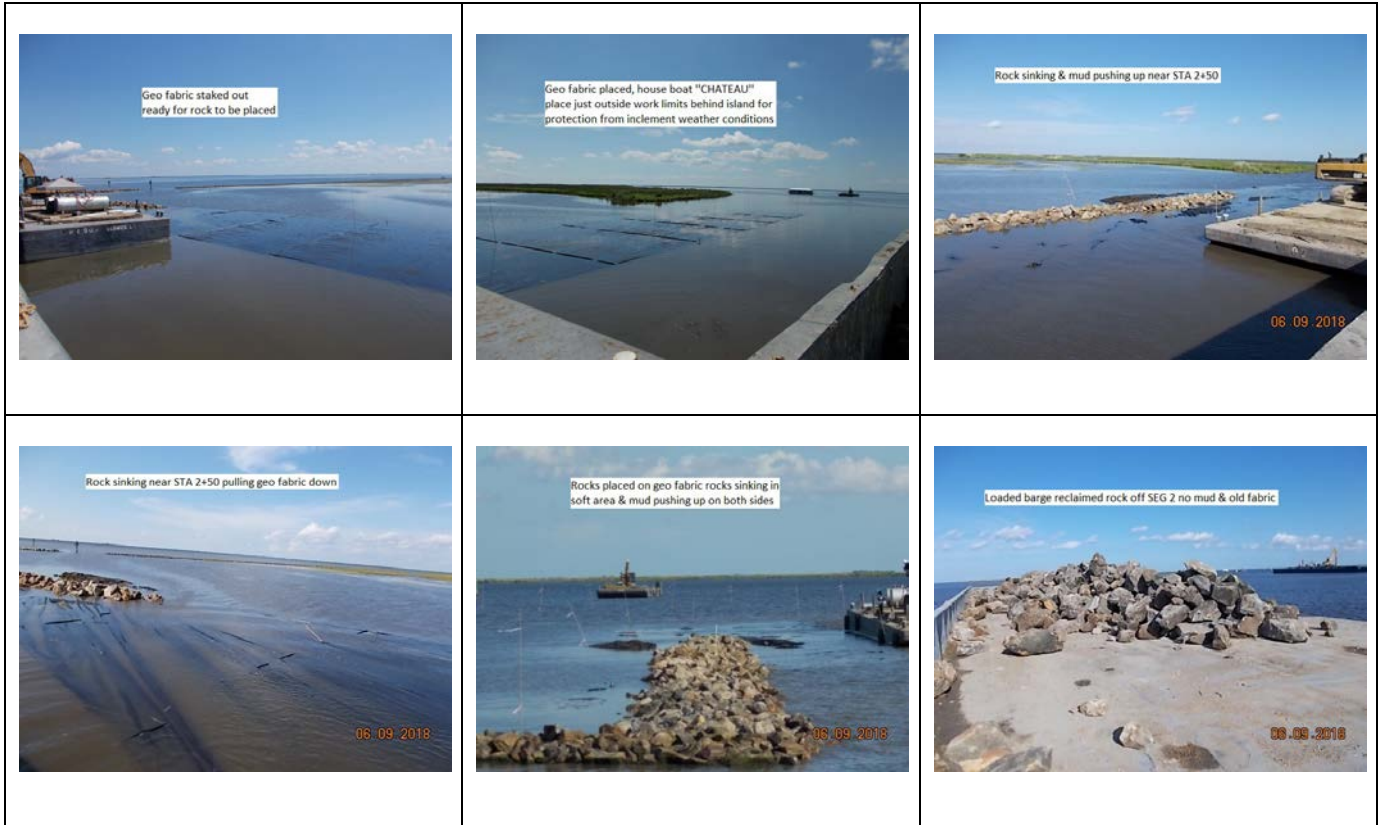
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B

 <p>Moving loaded barge of reclaimed rock to be set in location on geo fabric with 345 Excavator</p>	 <p>385 reclaiming rock loading on barge to be set in place with 345 Excavator</p>	 <p>345 on barge setting rock n place on geo fabric @ STA 0+00</p>
 <p>Geo fabric set in place for rock dike to be built</p>	 <p>Spoil pile, rock dike SEG 2 looking towards SEG 1</p>	 <p>385 on barge holding empty while mud tug makes up to loaded barge</p>
 <p>Spoil area from when 345 dredged ,385 reclaiming rock</p>	 <p>345 on barge placing rock in location</p>	 <p>Mud Tug & Crew Boat Miss Riley</p>
 <p>345 on barge rock dike</p>	 <p>345 on barge swinging geo fabric in place to be set</p>	 <p>345 on barge set geo fabric, & waiting on next barge of reclaimed rock</p>

PROJECT COMPLETION REPORT
Little Lake Shoreline Protection & Marsh Creation (BA-0037)
Segment 1 & 2 Demolition & Perpendicular Rock DiKE Construction

APPENDIX B



PROJECT COMPLETION REPORT

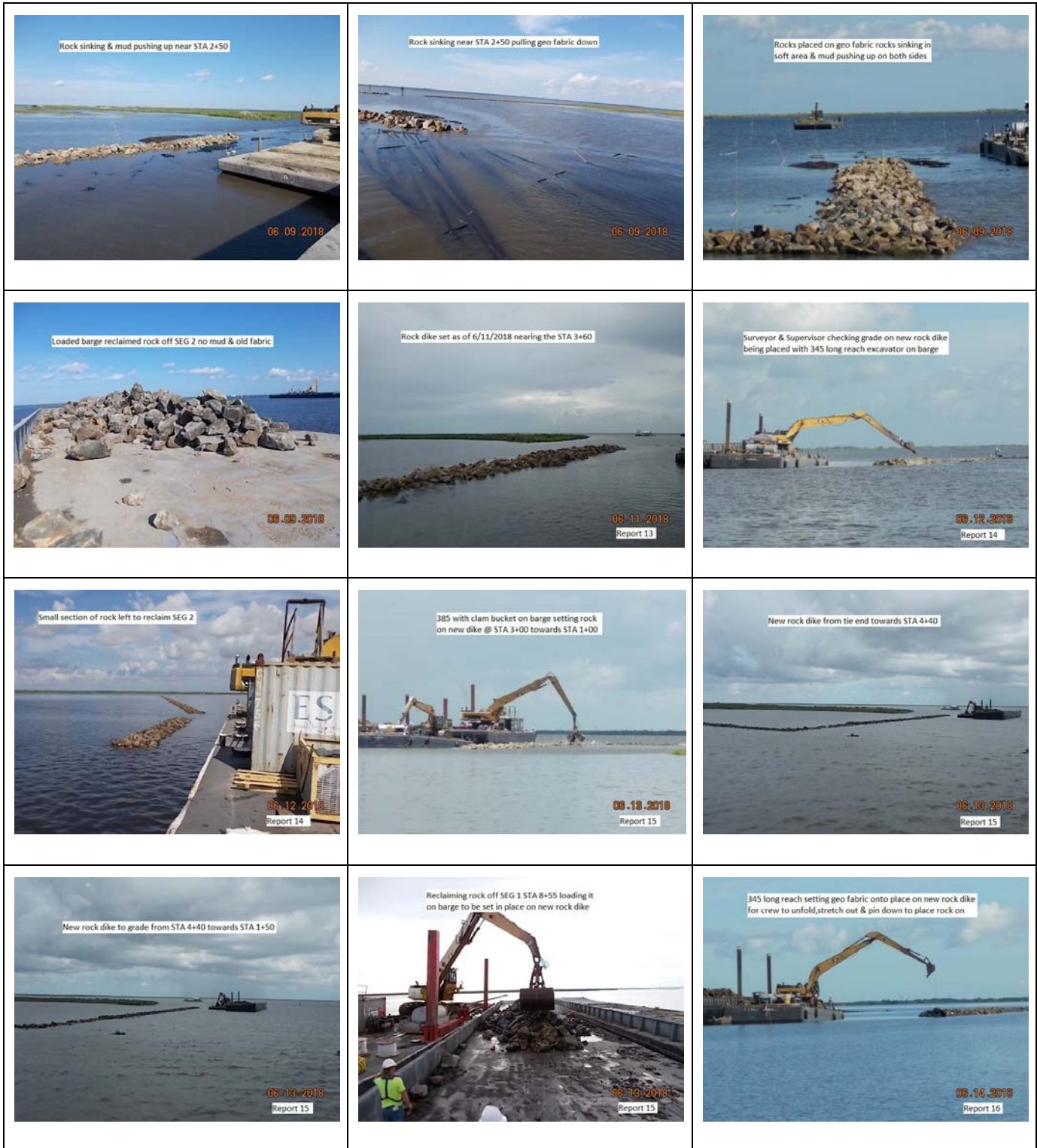
Little Lake Shoreline Protection & Marsh Creation (BA-0037)

Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B

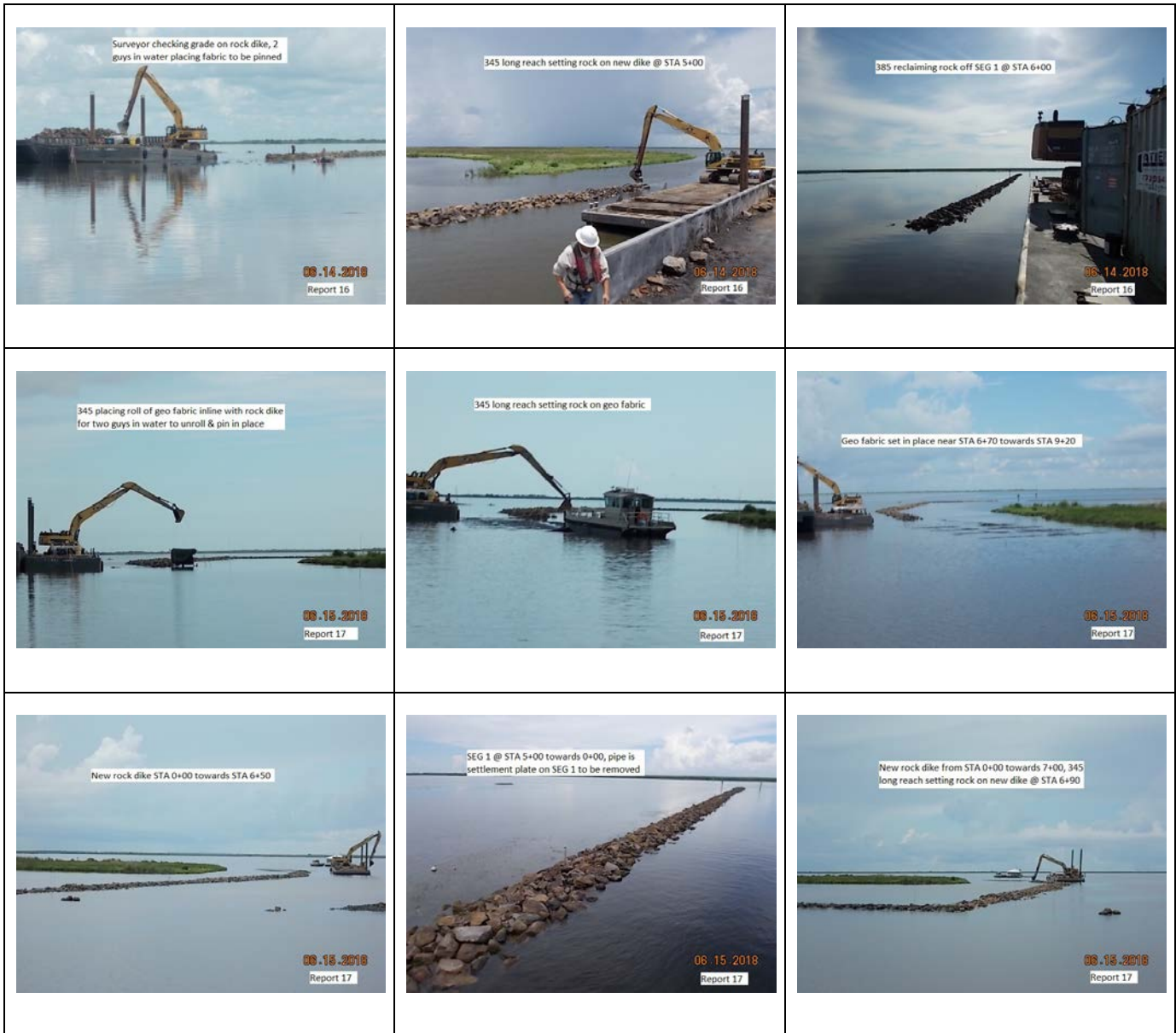
PHOTOGRAPHIC LOG

Week 2 Ending - June 16, 2018



PROJECT COMPLETION REPORT
Little Lake Shoreline Protection & Marsh Creation (BA-0037)
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B



PROJECT COMPLETION REPORT

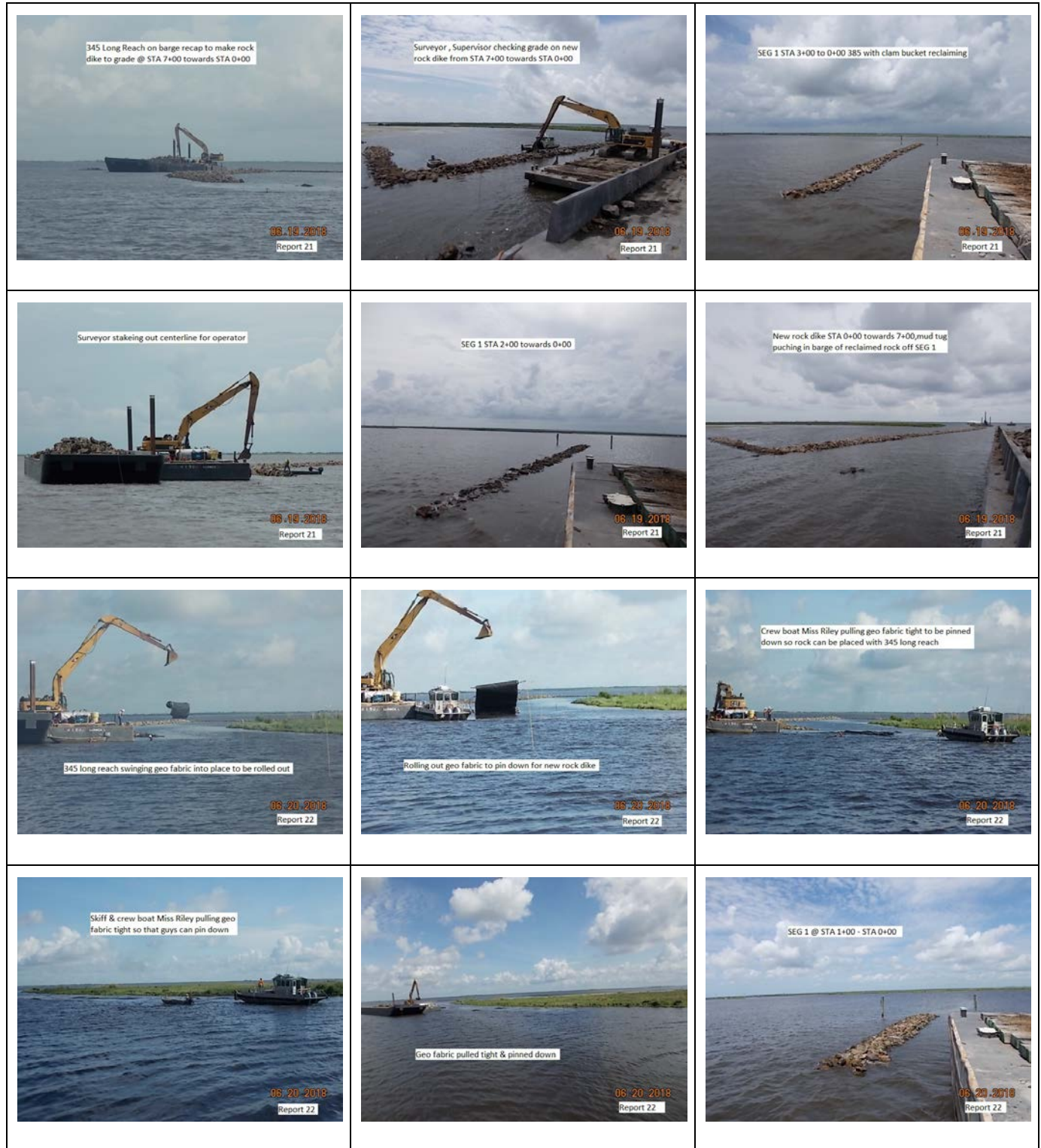
Little Lake Shoreline Protection & Marsh Creation (BA-0037)

Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B




PHOTOGRAPHIC LOG

Week 3 Ending - June 23, 2018



PROJECT COMPLETION REPORT
Little Lake Shoreline Protection & Marsh Creation (BA-0037)
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B

 <p>New rock dike @ STA 0+00 towards STA 9+00</p> <p>08.20.2018 Report 22</p>	 <p>Last pile of rock on SEG 1 to be reclaimed</p> <p>08.20.2018 Report 22</p>	 <p>385 with clam bucket on barge moved back to reclaim rock pile used as flotation channel markers, then swept SEG 1 STA 8+55 - 0+00</p> <p>08.21.2018 Report 23</p>
 <p>Surveyor & Supervisor in skiff checking grade on new rock dike @ STA 0+00 Towards STA 9+50</p> <p>08.21.2018 Report 23</p>		

PROJECT COMPLETION REPORT













Little Lake Shoreline Protection & Marsh Creation (BA-0037)

Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B

PHOTOGRAPHIC LOG

Week 4 Ending - June 30, 2018

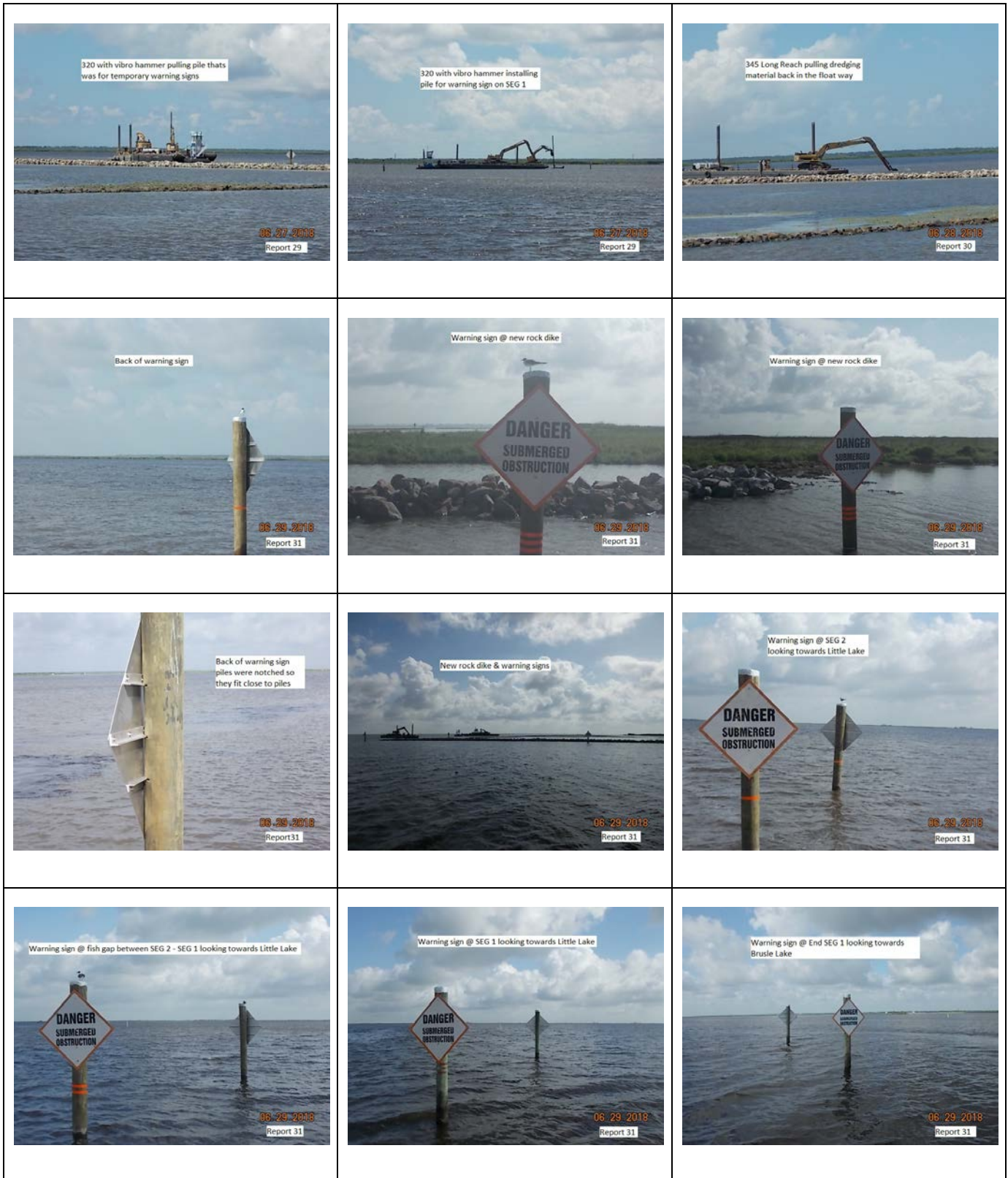
 <p>Tug Boat Marsh Island & Barge DH 9531 loaded to 8'-9" draft stuck on mud flat @ Bayou Saint Denis @ Little Lake</p> <p>06.24.2018 Report 26</p>	 <p>385 off loading new rock barge from Bow towards Stern to lessen load on barge</p> <p>06.24.2018 Report 26</p>	 <p>Mud tug pushing barge M707 loaded to 345 Long Reach to set new rock onto rock dike</p> <p>06.24.2018 Report 26</p>
 <p>345 Long Reach setting new rock on dike @ STA 9+65</p> <p>06.24.2018 Report 26</p>	 <p>345 Long Reach setting new rock on dike @ STA 9+65 towards STA 9+90</p> <p>06.24.2018 Report 26</p>	 <p>385 loading barge M710 for mud tug to take it to 345 Long Reach</p> <p>06.24.2018 Report 26</p>
 <p>345 Long Reach setting out new rock on dike @ STA 9+90 -STA 10+75</p> <p>06.25.2018 Report 27</p>	 <p>345 Long Reach setting out last of new rock on dike</p> <p>06.25.2018 Report 27</p>	 <p>New Rock Dike STA 0+00 towards STA 5+00</p> <p>06.25.2018 Report 27</p>
 <p>345 Long Reach cleaning Barge DH 9531 finish placing new rock on dike @ STA 10+75</p> <p>06.25.2018 Report 27</p>	 <p>320 with vibro hammer installing piles @ new rock dike for signs to be placed</p> <p>06.26.2018 Report 28</p>	 <p>320 with vibro hammer installing piles for warning signs @ SEG 2</p> <p>06.26.2018 Report 28</p>

PROJECT COMPLETION REPORT

Little Lake Shoreline Protection & Marsh Creation (BA-0037)

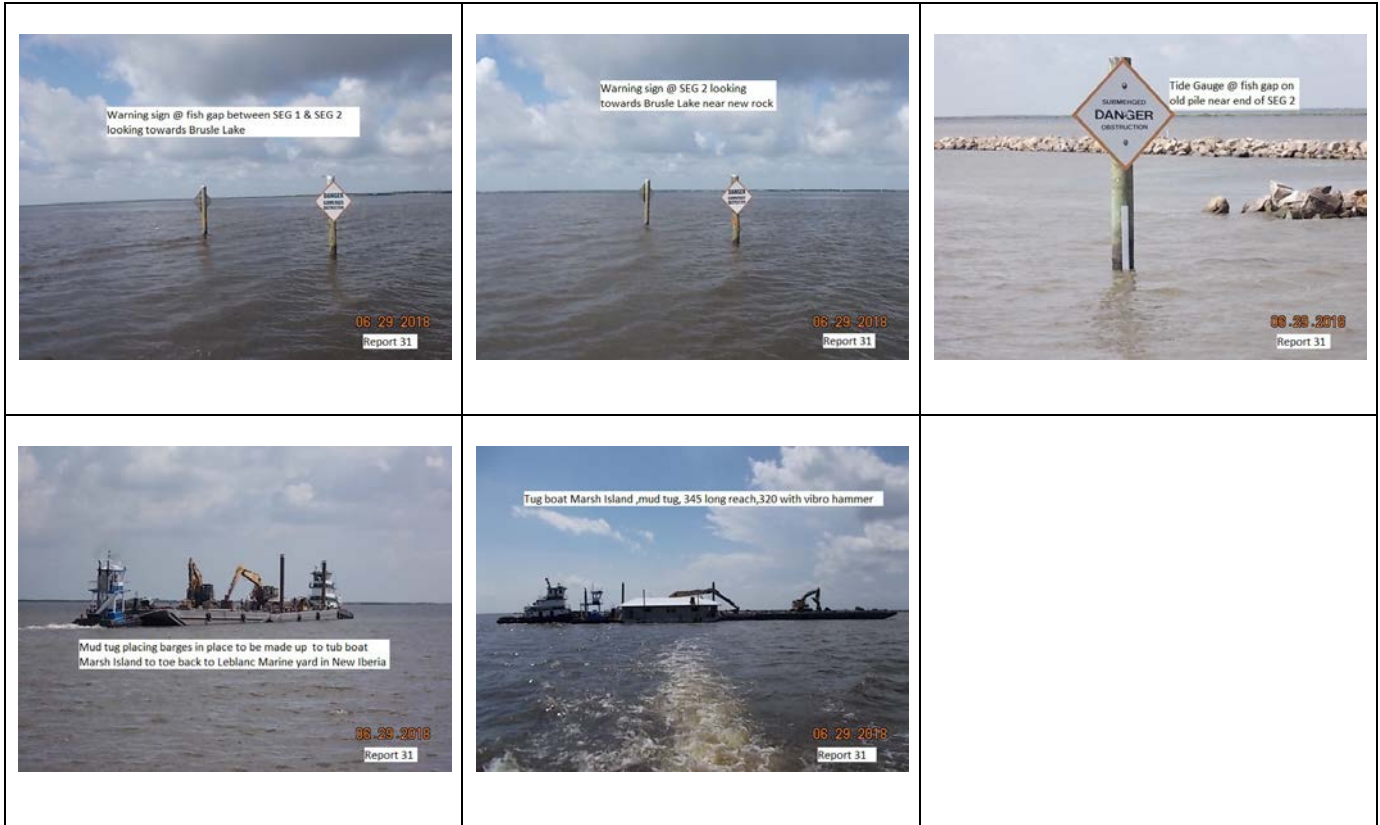
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B



PROJECT COMPLETION REPORT
Little Lake Shoreline Protection & Marsh Creation (BA-0037)
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

APPENDIX B



PROJECT COMPLETION REPORT

**Little Lake Shoreline Protection & Marsh Creation
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction
BA-0037**

APPENDIX C

Field Order No. 1

PROJECT: Little Lake Shoreline Protection And Marsh Creation
Segment 1 And 2 Demolition & Perpendicular Rock
Dike Construction Project

FIELD ORDER NO: 1

OWNER: Louisiana Coastal Protection & Restoration Authority

CONTRACTOR: Leblanc Marine, LLC

Overview:

The purpose of this field order is to adjust the Contract to reflect the following changes:

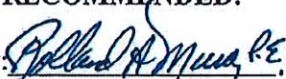
Based on the Pre-Construction Survey, the last three centerline coordinates of the Perpendicular Rock Dike shown on Sheet 14 of the Construction Plans are hereby shifted eastward approximately 150 linear feet. Additionally, Sheet 6 has been modified to reflect the new alignment and bathymetric survey data.

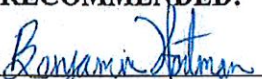
This modification comes at no additional cost.

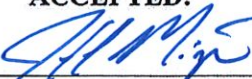
The coordinates for this feature are as follows.

PERPENDICULAR ROCK DIKE CENTERLINE ALIGNMENT		
STATION	EASTING	NORTHING
0+00	3637326.68	365166.56
4+83	3637501.80	364716.85
7+73	3637668.90	364479.19
11+09	3637935.20	364274.67

This Field Order does not release the Contractor from any of their contract obligations.

RECOMMENDED:
By: 
Hartman Engineering, Inc.,
Representative

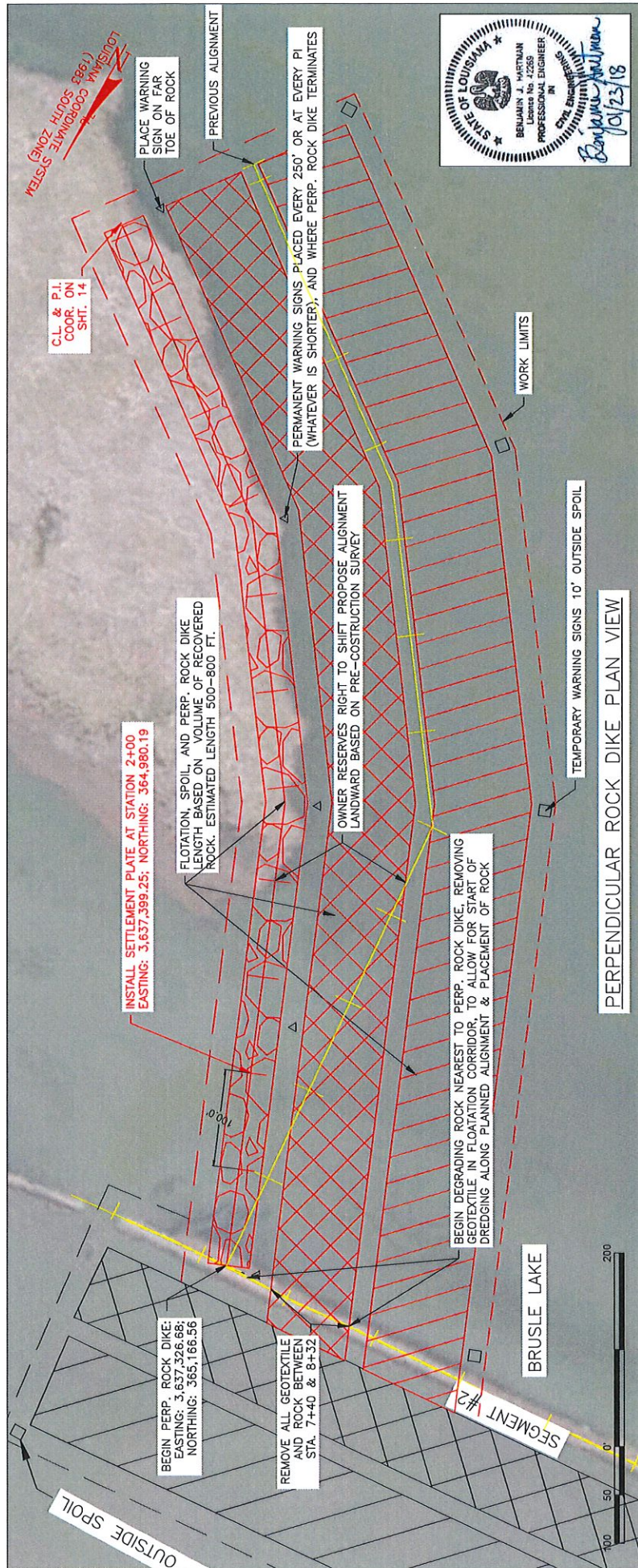
RECOMMENDED:
By: 
CPRA Engineer

ACCEPTED:
By: 
Leblanc Marine, LLC

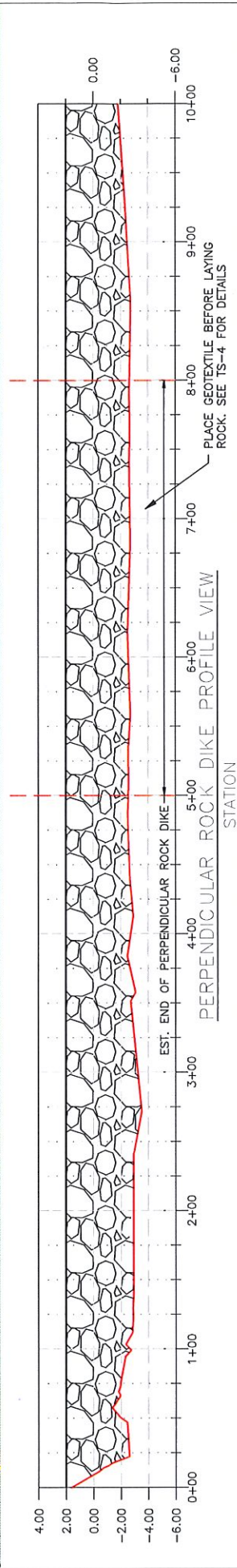
Date: 5/22/2018

Date: 5/24/2018

Date: 5-25-18



PERPENDICULAR ROCK DIKE PLAN VIEW



LEGEND

- REVISION
- ROCK DIKE
- FLOATATION CHAN.
- SPOIL
- PERM. WARNING SIGN
- TEMP. WARNING SIGN

COASTAL PROTECTION AND RESTORATION AUTHORITY
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70801

BA-37 Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction

STATE PROJECT NUMBER: BA-37

FEDERAL PROJECT NUMBER: BA-37

APPROVED BY: B.J.H.

DESIGNED BY: B.J.H.

DRAWN BY: B.J.H.

BY: B.J.H.

DATE: 01/2018

SHEET 48 OF 14

ENGINEERING BASIN/BA-37/G-SEGMENT 1 & 2 DEMOLITION & DIKE CREATION/2-CONSTRUCTION/2.L-AS-BUILT

AVERAGE END METHOD - RECLAIMED ROCK - SEG #1		
STATION	AREA (FT ²)	VOLUME (FT ³)
0+00	75	
1+00	75	7,505
2+00	84	7,935
3+00	102	9,299
4+00	121	11,150
5+00	108	11,412
6+00	89	9,819
7+00	95	9,208
8+00	65	7,994
8+50	57	2,857
TOTAL VOLUME	(CY)	2,858
TONNAGE	TON	4,288

AVERAGE END METHOD - RECLAIMED ROCK - SEG #2		
STATION	AREA (FT ²)	VOLUME (FT ³)
0+00	47	
1+00	70	5,852
2+00	107	8,876
3+00	82	9,484
4+00	111	9,682
5+00	86	9,850
6+00	108	9,701
7+00	125	11,657
8+00	106	11,549
8+72	80	6,695
TOTAL VOLUME	(CY)	3,086
TONNAGE	TON	4,629

AVERAGE END METHOD - CONSTRUCTION OF PENDICULAR ROCK DIKE		
STATION	AREA (FT ²)	VOLUME (FT ³)
0+23	57.53	
1+10	83.41	7,752
2+10	127.63	10,552
3+10	122.91	12,527
4+10	123.95	12,343
5+02	130.00	11,682
6+30	138.41	17,178
7+49	142.16	16,642
8+57	149.46	15,844
TOTAL VOLUME	(CY)	3,871
TONNAGE	TON	5,807

AS-BUILT SURVEYS INDICATE A 33% LOSS OF
ROCK VOLUME DUE TO PRIMARY CONSOLIDATION
2,858 CY + 3,086 CY = 5,944 CY
5,944 CY * (1.00-0.33) = 3,982.48 CY
ASSUMING IDEAL CONDITIONS, THE
PENDICULAR ROCK DIKE COULD STRETCH AS
FAR AS STATION 8+80

PENDICULAR ROCK DIKE CENTERLINE ALIGNMENT		
STATION	EASTING	NORTHING
0+00	3837326.68	365166.56
4+83	3837501.80	364716.85
7+73	3837668.90	364479.19
11+09	3837935.20	364274.67

OWNER RESERVES RIGHT TO SHIFT ALIGNMENT
LANDWARD BASED ON PRE-CONSTRUCTION SURVEY

AVERAGE END METHOD - DREDGE - SEG #1		
STATION	AREA (FT ²)	VOLUME (FT ³)
0+00	49	
1+00	40	5,852
2+00	97	8,876
3+00	85	9,484
4+00	82	9,662
5+00	97	9,850
6+00	103	9,701
7+00	110	11,657
8+00	97	11,549
8+50	64	6,695
TOTAL VOLUME	(CY)	3,086

AVERAGE END METHOD - DREDGE - SEG #2		
STATION	AREA (FT ²)	VOLUME (FT ³)
0+00	3	
1+00	111	5,852
2+00	135	8,876
3+00	133	9,484
4+00	153	9,662
5+00	161	9,850
6+00	166	9,701
7+00	171	11,657
8+00	171	11,549
8+72	154	6,695
TOTAL VOLUME	(CY)	3,086

AVERAGE END METHOD - DREDGE - PENDICULAR ROCK DIKE		
STATION	AREA (FT ²)	VOLUME (FT ³)
0+23	298	
1+10	285	32,085
2+10	288	28,628
3+10	240	26,356
4+10	230	23,472
5+02	232	21,238
6+30	253	31,037
7+49	309	33,365
8+57	241	29,890
TOTAL VOLUME	(CY)	8,373



REV.	DATE	DESCRIPTION	BY
1	10/23/18	REVISED PENDICULAR ROCK DIKE ALIGNMENT	B.J.H.

COASTAL PROTECTION AND
RESTORATION AUTHORITY
150 TERRACE AVENUE
BATON ROUGE, LOUISIANA 70801

BA-37 Segment 1 & 2 Demolition
& Perpendicular Rock Dike Construction
STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: B.J.H.

DREDGE
& ROCK QUANTITIES
DATE: 10/2018
SHEET 14B OF 14

PROJECT COMPLETION REPORT

**Little Lake Shoreline Protection & Marsh Creation
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction
BA-0037**

APPENDIX D

Construction Sequences and Activities

Construction Schedule

Preliminary Construction Schedule
Little Lake Shoreline Protection
and Marsh Creation - Seg 11 Demolition and Perpindicular Rock Dike Construction BA-0037

ID		Task Mode	Task Name	Duration	Start	Finish	Predecessors																												
1			Little Lake Shoreline Protection	117.5 days	Mon 4/16/18	Wed 8/22/18																													
2			Pre Construction Meeting	0 days	Tue 4/24/18	Tue 4/24/18																													
3			Pre-Construction Submittals	14 days	Mon 4/16/18	Tue 5/1/18	2FS-7 days																												
4			Notice to Proceed/Preconstruction Meeting	0 days	Tue 4/24/18	Tue 4/24/18	2																												
5			Control/Recon at site	2 days	Tue 5/1/18	Thu 5/3/18	3																												
6			Mag Survey	3 days	Thu 5/3/18	Mon 5/7/18	5																												
7			Pre Construction Survey/stakeout	4 days	Mon 5/7/18	Fri 5/11/18	6																												
8			Survey Review	14 days	Thu 5/10/18	Fri 5/25/18	7																												
9			Mobilization	3 days	Tue 5/22/18	Fri 5/25/18	8FF																												
10			Access Dredging	3 days	Mon 6/4/18	Wed 6/6/18																													
11			Rock Removal	15 days	Wed 6/6/18	Fri 6/22/18	10																												
12			Access Dredging (perpendicular rock)	3 days	Sat 6/9/18	Wed 6/13/18	11SS+3 days																												
13			Rock Placement	15 days	Thu 6/7/18	Sat 6/23/18																													
14			New Rock Placement	6 days	Thu 6/28/18	Thu 7/5/18	13FS+5 days																												
15			Dredge Backfill	5 days	Thu 7/5/18	Wed 7/11/18	14																												
16			As Built Survey	7 days	Wed 7/11/18	Wed 7/18/18	15																												
17			Weather Days	9 days	Wed 7/18/18	Sat 7/28/18	16																												
18			Contract End Date	0 days	Wed 5/23/18	Wed 8/22/18																													

Date: Fri 6/1/18

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

PROJECT COMPLETION REPORT

**Little Lake Shoreline Protection & Marsh Creation
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction
BA-0037**

APPENDIX E

**Change Order No. 1
and
Change Order No. 2**

STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY
CHANGE ORDER

Dated June 21, 2018

CPRA Contract No. BA-0037

ENGINEER's Project No. 12-123-01-01

Little Lake Shoreline Protection & Marsh Creation (BA-0037)
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction
Project: Lafourche Parish, Louisiana

CONTRACTOR LeBlanc Marine, LLC

Contract For Little Lake Shoreline Protection & Marsh Creation

Contract Date April 16, 2018

To: LeBlanc Marine, LLC

CONTRACTOR

You are directed to make the changes noted below in the subject Contract:

Office of Coastal Protection and Restoration

OWNER

By

Benjamin Hartman

Dated

6/21/18

, 2018

Nature of the Changes:

Change Contract Item No. 7, Permanent Warning
Signs Quantity from 4 to 10 Signs Total, an increase
of 6 Permanent Signs

6 Permanent Signs @ \$980.00 each = \$5,880.00

Add Contract Item No. 11, Replace Aluminum Plate,
Permanent Warning Signs on Western End at Locations
Shown on Plan Sheet 4A (Rev. B)2 Permanent Signs @ \$650.00 each = \$1,300.00

Net Addition:

\$7,180.00

Enclosures:

Project Plan Sheet 4A (Rev. B) dated June 12, 2018, and Project email dated June 18, 2018.

RECEIVED
JUN 29 2018BY: *de*

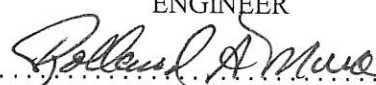
These changes result in the following adjustment of Contract Price and Contract Time:

Contract Price Prior to This Change Order	\$ 488,110.00
Net (Increase) (Decrease) Resulting from this Change Order	\$ 7,180.00
Current Contract Price Including This Change Order	\$ 495,290.00
Contract Time Prior to This Change Order	120 days - August 22, 2018
	(Days or Date)
Net (Increase) (Decrease) Resulting from This Change Order	0
	(Days)
Current Contract Time Including This Change Order	120 days - August 22, 2018
	(Days or Date)

The Above Changes Are Approved:

Hartman Engineering, Inc.

ENGINEER

By 
Rolland A. Mura, P.E.


Dated 6/21/2018

Contractor acknowledges that the values set forth in this change order include any and all claims for additional compensation due to equitable adjustment resulting from any addition, deletion or revision in the Work, or changes in contract time.

The Above Changes Are Accepted:

LeBlanc Marine, LLC

CONTRACTOR

By 

Dated 6/25/2018

Rolland Mura

From: Jeff Mizzi <jeff@leblancmarine.com>
Sent: Monday, June 18, 2018 3:21 PM
To: rmura@harteng.com
Cc: 'Benjamin Hartman, PE'; 'Jared Monceaux PE'
Subject: RE: CPRA BA-0037 - Proposed Change Order for Additional Permanent Warning Signs

Rolland,

Thanks for the phone call.

It makes sense to me.

Looks as we'll add 6 temporary signs (with pilings) into the project as a permanent sign (using the aluminum angles). We will add the two temporary signs on the western end (with aluminum angles) but keep the existing timber piles. We can add the two on the western end for \$650/unit. This will help recoup the cost of materials/aluminum angle and all of the installation and small supplies to handle the installation. Let us know if this is acceptable so we can figure on completing.

Thanks,

Jeff Mizzi, PMP
Estimator/Project Manager
337-280-6156c
337-364-4701o
Leblanc Marine
www.leblancmarine.com

From: Rolland Mura <rmura@harteng.com>
Sent: Monday, June 18, 2018 3:09 PM
To: Jeff Mizzi <jeff@leblancmarine.com>
Cc: Benjamin Hartman, PE <Benjamin.Hartman@la.gov>; Jared Monceaux PE <jmonceaux@harteng.com>
Subject: RE: CPRA BA-0037 - Proposed Change Order for Additional Permanent Warning Signs

Jeff,

Based on the Owner's recent annual inspection & concurrent construction inspection, it was determined that the proposed BA-0037 Change Order No. 1 is to include the following.

1. Keep five (5) of the timber piles used to display the temporary warning signs and place them in the locations shown the attached plan Sheet 5A (rev. B, 06/18/18).
 - a. Two piles on Segment 1 should be located near the middle of the structure and offset from its centerline approximately 20'.
 - b. One pile shall be placed between Segment 1 & 2 on the south side, also 20' offset from the centerline of the structures.
 - c. Two piles shall be placed on Segment 2 at a 20' offset from the structure's PI.
2. Keep all temporary aluminum plate warning signs (8) and incorporate them as permanent warning signs. Five (5) of the aluminum signs are to go on the five (5) newly placed timber piles (per Item 1 above). Two (2) aluminum signs are to replace the existing warning aluminum signs at the beginning (western most end) of Segment 1; the two (2) existing piles at this end location are to remain. One aluminum sign and pile is to be installed at a

location shown on Plan Sheet 6A (rev. A, 03/02/18). Plan Sheet 6A indicates five (5) permanent warning signs, but a quantity of only four (4) permanent signs is listed on the project Bid Form.

3. The new signage shall include the same support features (angle members, etc.) as that required for the permanent warning signs. For the additional permanent signs, the Owner agrees to the Contractor's use of the same aluminum gauge thickness as used for the temporary signs; however, the original plan specified gauge is preferred. New additional signs using the thinner gauge aluminum definitely need the angle members as shown on Sheet 4A of the plans.
4. The use of SS bolts with the BA-0037 warning signs described in the LeBlanc-Marine project email dated June 14, 2018, is acceptable to the Owner.
5. Based on the above, two prices/unit prices are requested:
 - No. 11, Additional Permanent Warning Signs at five (5) locations shown on Project Plan Sheet 5A (rev. B), and at one (1) of the locations shown on Plan Sheet 6A, new item quantity 6. Note: LeBlanc-Marine proposed (06/13/18) completing the work for 5 additional piles and permanent signs shown on Sheet 5A at the unit price for Bid Item #7.
 - No. 12, Replacement of Permanent Aluminum Warning Signs at west end of Segment #1, new item quantity 2.

On behalf of the Owner, we request a cost proposal from Leblanc Marine for supplying and installing these additional permanent warning signs and replacement signs as described above complete per the plan details and specifications for permanent signs. Your proposal will be reviewed by the Owner and must be approved before proceeding with this additional signage work. If you have any questions, please do not hesitate to contact me. Your assistance in this matter will be greatly appreciated.

Regards,
Rolland, HEI

From: Jeff Mizzi [<mailto:jeff@leblancmarine.com>]
Sent: Thursday, June 14, 2018 10:46 AM
To: rmura@harteng.com
Cc: 'Benjamin Hartman, PE'; 'Jared Monceaux PE'
Subject: RE: CPRA BA-0037 - Proposed Change Order for Additional Permanent Warning Signs

Mr. Rolland, Thanks for the clarification.
This is all understood and acceptable to Leblanc Marine.

As for the bolting of the sign to the angle. We would like to use a stainless 3/8" bolt with flat washer and lock washer along with a rubber washer to prevent bleed between the metals. We would like to place 6 on the middle bracket and 4 on each smaller brackets on the top/bottom.

So 14 total on each sign.

Along with the lag screws that are called out in the drawing.

Let us know if this would be acceptable.

Thanks,
Jeff Mizzi, PMP
Estimator/Project Manager
337-280-6156c
337-364-4701o
Leblanc Marine
www.leblancmarine.com

From: Rolland Mura <rmura@harteng.com>
Sent: Wednesday, June 13, 2018 4:50 PM

To: Jeff Mizzi <jeff@leblancmarine.com>

Cc: Benjamin Hartman, PE <Benjamin.Hartman@la.gov>; Jared Monceaux PE <jmonceaux@harteng.com>

Subject: RE: CPRA BA-0037 - Proposed Change Order for Additional Permanent Warning Signs

Jeff,

Our initial concern about using the temp piles was potential damage to the temp piles in pulling them with the bottom conditions in the area. However, the re-use of the piles from the temp signs would be acceptable provided the piles can be pulled, handled, and repositioned without damage. As 5 new permanent piles are requested, when removing all the temp piles, you will have several 'spare' temp piles for use if any are damaged during removal.

As a recap:

1. We understand that the LeBlanc Marine cost for furnishing and installing the five (5) signs complete would be for the same unit rate as listed on bid item No. 7 "Permanent Warning Signs". This unit price and total for the additional signs installed will be in the signed Change Order.
2. Once the Change Order is approved, the temp timber piles can be re-used. Moving the temporary warning signs likely would be one of the last construction activities. We assume that Leblanc Marine would pull all the temp piles at once and only use the ones that are in the best condition. If several piles should break, and after use of spares, there are not as many timber piles as originally requested, the Owner shall have the opportunity to choose the most appropriate locations for the remaining new signs.
3. For the 5 additional permanent signs, the Owner agrees to the Contractor's use of the same aluminum gauge thickness as used for the temporary signs; however, the original plan specified gauge is preferred. New additional signs using the thinner gauge aluminum definitely need the angle members as shown on Sheet 4A of the plans.
4. Per your separate email to Ben, no exception is taken to the use of stainless steel bolts in lieu of welding. The bolts shall secure the signs against hurricane winds and the bolt threads are to be 'treated' to minimize vandalism and theft of the aluminum. Please submit a sketch/detail for the use of SS bolts in lieu of welding.

Please let me know if the above is acceptable to you.

Thank you,

Rolland, HEI

From: Jeff Mizzi [<mailto:jeff@leblancmarine.com>]

Sent: Wednesday, June 13, 2018 3:21 PM

To: rmura@harteng.com

Cc: 'Benjamin Hartman, PE'; 'Jared Monceaux PE'

Subject: RE: CPRA BA-0037 - Proposed Change Order for Additional Permanent Warning Signs

After discussing with carpenter foreman.

We can use the unit price in the Schedule of Values.

This is with the understanding that we will be re-using our timber piles from the temporary signs.

This would alleviate an additional mobilization of timber piles to little lake.

Please advise if this would be acceptable and if so I need to know as soon as possible so we can get the thicker signs on order. They had a pretty long lead time.

Another option would be to allow us to use the temporary (thinner) signs, but with the added angle bracing behind them.

Please advise.

Jeff

From: Rolland Mura <rmura@harteng.com>

Sent: Tuesday, June 12, 2018 3:50 PM

To: Jeff Mizzi <jeff@leblancmarine.com>

Cc: Benjamin Hartman, PE <Benjamin.Hartman@la.gov>; Jared Monceaux PE <jmonceaux@harteng.com>

Subject: CPRA BA-0037 - Proposed Change Order for Additional Permanent Warning Signs

Jeff,

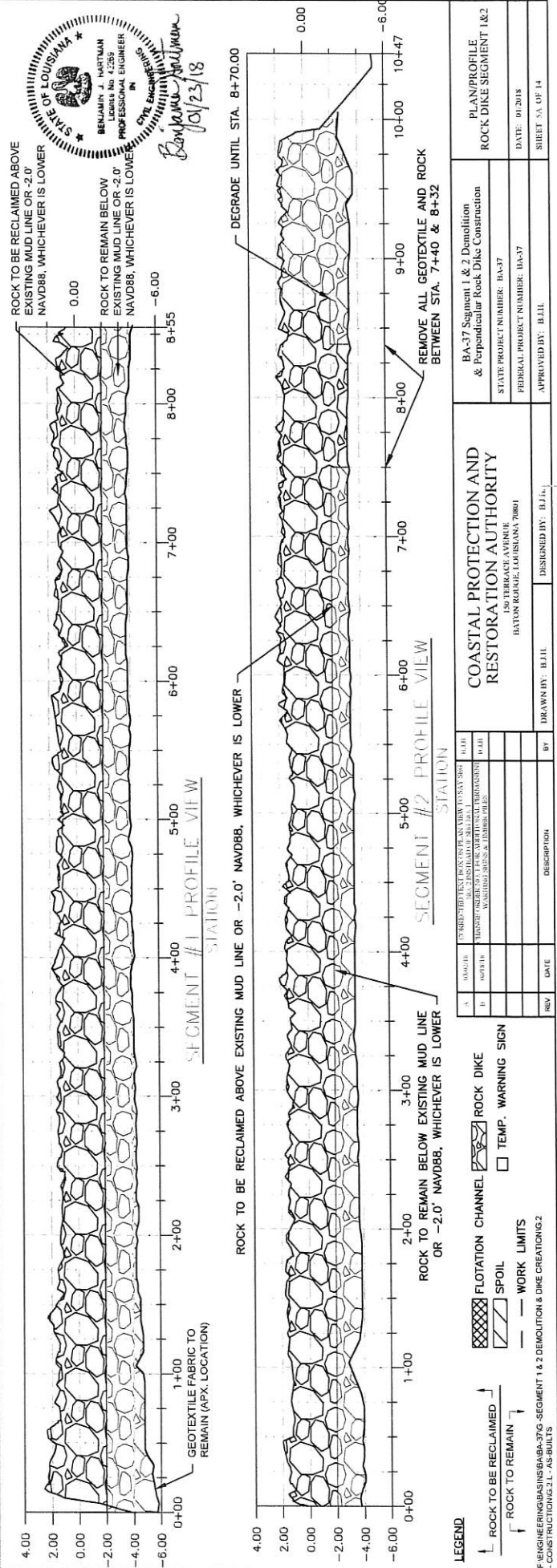
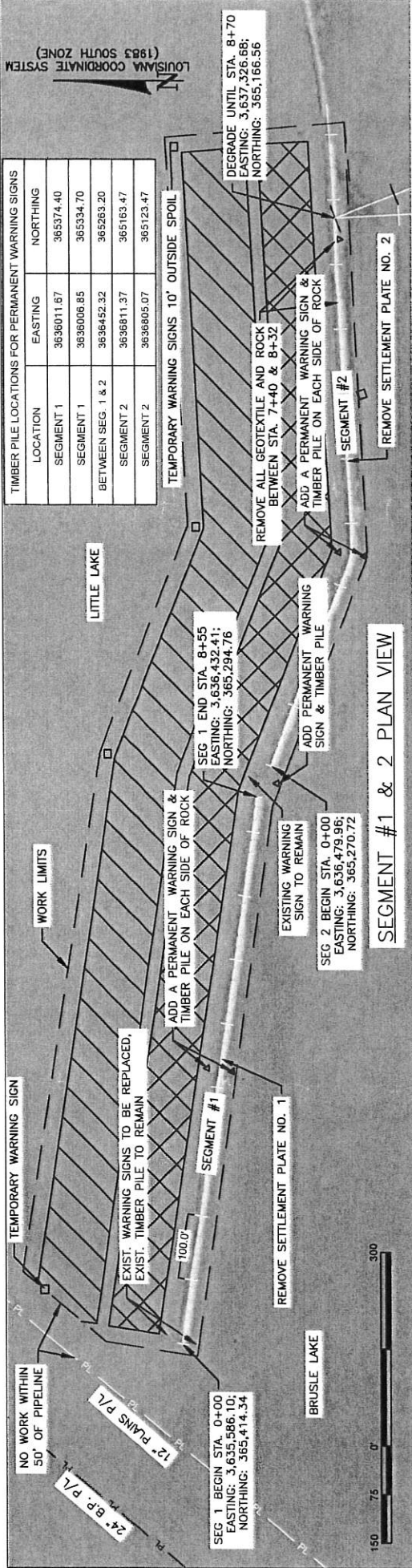
Following Friday's site visit, we have been asked to pursue a Change Order on behalf of CPRA & NOAA for additional permanent warning signs for the project.

CPRA would like to add five (5) timber piles with warning signs, installed per the project plans and specs, along Segments Nos. 1 & 2 for additional permanent warning signs for the BA-0037 project. The existing warning signs now would remain and five (5) additional piles and permanent signs, two (2) on each side of remaining rock and one (1) at the 'fish dip', would be added to the work. The attached Sheet 5A, Revision B, is marked to indicate the existing warning signs to remain and the proposed locations of the additional piles and signs. The project currently has four (4) temporary signs and piles along the north side of Segment Nos. 1 & 2. The temporary warning signs for the project are constructed of thinner aluminum will remain the property of the Contractor.

On behalf of the Owner, we request a cost proposal from Leblanc Marine for supplying and installing these additional permanent warning signs complete per the plan details and specifications for permanent signs. Your proposal will be reviewed by the Owner and must be approved before proceeding with this additional signage work. If you have any questions, please do not hesitate to contact me. Your assistance in this matter will be appreciated.

Thank you,
Rolland

Rolland A. Mura, P.E.
Hartman Engineering, Inc.
504-466-5667



STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY
CHANGE ORDER

Dated July 06, 2018

No. 02

RECEIVED
JUL 16 2018
BY: *[Signature]*

CPRA Contract No. BA-0037 ENGINEER's Project No. 12-123-01-01

Little Lake Shoreline Protection & Marsh Creation (BA-0037)
Segment 1 & 2 Demolition & Perpendicular Rock Dike Construction
Project: Lafourche Parish, Louisiana

CONTRACTOR LeBlanc Marine, LLC

Contract For Little Lake Shoreline Protection & Marsh Creation Contract Date April 16, 2018

To: LeBlanc Marine, LLC

CONTRACTOR

You are directed to make the changes noted below in the subject Contract:

Office of Coastal Protection and Restoration

OWNER

By

Benjamin Hartman

Dated

July 6th

, 2018

Nature of the Changes:

Change Contract Work Items for Final Measured Quantities and Final Cost of Items as follows:

- Item No. 1, Mobilization and Demobilization – No Change, 100% complete: 1 LS = \$115,000.00
- Item No. 2, Rock Recovery and Placement – Deduction of 2,468 tons, 73% of original amount placed:
6,532 tons @ \$19.00 per ton = \$124,108.00
- Item No. 3, Flotation Dredging – No Change, 100% complete: 1 LS = \$ 33,000.00
- Item No. 4, Woven Geotextile Fabric – No Change, 100% complete: 5,500 SY @ \$5.50 per SY = \$ 30,250.00
- Item No. 5, Temporary Warning Signs – No Change, 100% complete: 8 each @ \$980.00 each = \$ 7,840.00
- Item No. 6, Existing Warning Sign Removal – Deduction, 0%, not used: 3 each @ \$400.00 each = \$ 0.00
- Item No. 7, Permanent Warning Signs – Additional Signs per C.O. No. 1, 160% of original amount placed:
10 each @ \$980.00 each = \$ 9,800.00
- Item No. 8, Perpendicular Rock Dike Settlement Plate – No Change, 100% complete: 1 LS = \$ 1,000.00

Item No. 9, Construction Surveys – No Change, 100% complete: 1 LS = \$25,000.00

Item No. 10, Addition for 250 LB Class Rock – Addition of 273 tons, 130% of original amount placed:
1173 tons @ \$111.00 per ton = \$130,203.00

Item No. 11, Change Order No. 1 Item, Replace Aluminum Plate at two (2) Permanent Warning Signs without new Piles – Additional work per C.O. No. 1, 100% complete: 2 Permanent Signs @ \$650.00 each = \$1,300.00

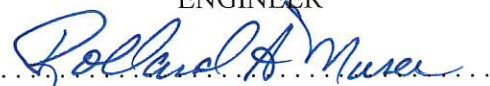
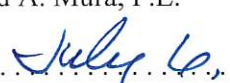
Net Final Contract Amount: \$477,501.00

Enclosures: None

These changes result in the following adjustment of Contract Price and Contract Time:



Contract Price Prior to This Change Order (No.2)	\$ 495,290.00
Net (Increase) (Decrease) Resulting from this Change Order	\$ - 17,789.00
Current Contract Price Including This Change Order	\$ 477,501.00
Contract Time Prior to This Change Order	120 days - August 22, 2018 (Days or Date)
Net (Increase) (Decrease) Resulting from This Change Order	0 (Days)
Current Contract Time Including This Change Order	120 days - August 22, 2018 (Days or Date)

The Above Changes Are Approved:

Hartman Engineering, Inc.
ENGINEER
By  Rolland A. Mura, P.E.
Dated , 2018

Contractor acknowledges that the values set forth in this change order include any and all claims for additional compensation due to equitable adjustment resulting from any addition, deletion or revision in the Work, or changes in contract time.

The Above Changes Are Accepted:

LeBlanc Marine, LLC
CONTRACTOR
By  Jeff Mizzi
Dated , 2018