PL-646 CWPPRA
PROJECT COMPLETION REPORT

PROJECT NAME	Non-Rock Alternatives to Shoreline Protection Demonstration Project
CWPPRA/STATE PROJECT NO	LA-16 (Jansen, Inc.)

Report Date July 27, 2015 By: Natural Resources Conservation Service

1. Project Personnel

CPRA Project Manager	Garvin Pitman	(225) 932-5898
CPRA Construction Project Mgr	Jody White	(337) 482-0664
CPRA Monitoring Manager	Thomas McGinnis	(337) 482-0665
Federal Agency Project Manager	Loland Broussard	(337) 291-3069
Federal Agency Contracting Officer	Vicki Supler	(318) 473-7645
Federal Agency Design Engineer	Dain Gillen	(225) 665-4253
Federal Agency COR	Loland Broussard	(337) 291-3069
Federal Agency Inspector	Carol Clement	(337) 783-1257
Federal Agency Inspector	Cody LaFleur	(337) 783-1257
Federal Agency Inspector	Mike Ryder	(337) 783-1257
Federal Agency Inspector	Nathan Richard	(337) 893-5781

2. Project Location & Description

The project is located along the eastern shoreline of Vermilion Bay, on Shark Island, in Iberia Parish, Louisiana.

The project involved constructing a continuous linear feature which was parallel and adjacent to the shoreline and consisted of individual concrete modular units with sloped front and rear sides and an enclosed bottom. The installed product is referred to as Buoyancy Compensated Erosion Control Modular System (BCECMS).

This product was developed by Jansen Inc. who reserves and retains any and all intellectual property and licensing rights associated with the design and pending patent, Copyright 2013, all rights reserved.

3. Contract Phases

The LA-16 Non-Rock Demonstration Project was approved for funding on Priority Project List 18 by the CWPPRA Task Force. The NRCS/CPRA project team decided to pursue the project in four (4) phases as described below:

Phase 1 – Request for Proposals: NRCS posted a Request for Proposals (RFP) on the Federal Business Opportunities website with a deadline date for submittals due March 15, 2012. Of the 17 proposals received, 14 qualified for further evaluation. The project team selected 5 proposals to advance to the next phase.

Phase 2 – Engineering and Design: Funding was provided via contracts to the 5 offerors to develop a comprehensive design report and complete set of construction plans and specifications. Each proposal was further evaluated and prioritized based on the information provided.
Phase 3 – Construction: Predicated on funding available, the top 4 offerors received contracts to fabricate and install 500 linear feet of their product at the Shark Island site in Iberia Parish, Louisiana. Of the 4 contractors, 3 successfully executed their contracts.
Phase 4 – Monitoring: A 3-year monitoring period has been established for each product to determine their effectiveness in providing shoreline protection and durability to last a 20-year life. The monitoring period began May 5, 2014 and will end on May 5, 2017.

4. Final Constructed Features

The final constructed feature consisted of 505 linear feet of BCECMS product. The straight line linear distance between terminal points was 460 feet. Each modular unit was installed on the bay bottom in approximately 2-3' of water and within 5 to 30 feet from the existing shoreline.

5. Task Force Funding Approval

	Project Cost Estimates
Construction	$ 1,159,869.00
E & D	$ 504,307.00
Landrights	$ 10,373.00
Monitoring	$ 10,787.00
O&M	$ 220,901.00
Total	$ 1,906,237.00

*Note: The above cost estimates reflect the total initial funds for the LA-16 Project and not individual contracts.

6. Items of Work

				Original Award		Final Amount		
Item No.	Work	Estimated Quantity	Unit	Unit Bid Price	Bid Amount	Final Quantity	Final Amount	% Over/ Under
1	Mobilization and Demobilization to Shark Island Site	1	Job	$187,741.41	$187,741.41	1	$187,741.41	100.00%
2	Installation of Shoreline Protection System at Shark Island Site	500	LF	$1,705.84	$852,918.59	500	$852,918.59	100.00%
3	Removal of Shoreline Protection System at Shark Island (Option)	1	Job	$98,599.90	$98,599.90			
			Total	**$1,139,259.90**		**$1,040,660.00**		

***NOTE:** The contract will remain open for 3 years after the installation of the last product. Contract funds will remain obligated until May 5, 2017 for CLIN 3.
***NOTE:** No Government Estimate was established. Costs were established based on the design estimate produced during Phase II.

7. Construction and Construction Oversight

Prime construction contractor	Jansen, Inc.
Subcontractor	Bellingham Marine Industries
Subcontractor	C.L. Jack Stelly & Associates
Original construction contract	$ 1,139,259.90
Change orders	$ 0.00
Over/Under runs	$ 0.00
Final construction contract	$ 1,040,660.00 *

***NOTE:** The contract will remain open for 3 years after the installation of the last product. Contract funds will remain obligated until May 5, 2017 for CLIN 3.

8. Major Equipment Used

Equipment & Supply Barge "Marc 1" (38' x 140')
Small Tug Boat
20' Fiberglass Boat
Cat 336E Excavator w/ Pipe Handler
480 Volvo Excavator w/ Lift Boom
Air Compressor (56942z)
25k Generator (530609)
350A Welding Machine
Collons 20,000 lb. Hydraulic Hammer
Cement Mixer

9. Construction Sequence

Jansen Inc. provided their own work force for all construction activities. However, all equipment used during construction was rented from various sources in the New Iberia, La. area. On February 28, 2014, Jansen began mobilizing one barge from the Port of Iberia, Iberia Parish, that contained all construction equipment and 50% of product supplies (modules & steel piles). Construction began on March 1, 2014, with installation of the first module at the northern end of the job site. All work at the job site was conducted via marine equipment due to the fact land access was prohibited.

Each module was placed on the bay bottom as close to the shoreline as practical. Once in position, the module was secured in place with 4 – 4" pin piles that were inserted in receiving sleeves built within the structure. Each pile was then driven to near vertical grade by a hydraulic hammer and bolted to the structure. Jansen installed a total of 48 modules and 192 pin piles.

10. Contract Modifications & Field Changes

Modification #1 – The purpose of this modification was to provide for contractor requested changes to the drawings to further facilitate the manufacture and installation of the product feature. Drawing sheets C-1 through C-7 were replaced. No specifications were changed.

There was no change to the contract amount. The performance time was increased from 114 calendar days to 180 calendar days (increase of 66 calendar days).

Modification #2 – The purpose of this modification was to revise the alignment of the wall to follow the changed shoreline since previous survey and to revise the range of mudline elevations that the module will be set. Drawing sheets C-2 and C-6 were replaced. No specifications were changed. There was no change to the contract amount or performance time.

11. Pipeline and Utility Crossings

Utility Type	Owner	Rep. To Contact
N/A	N/A	N/A

12. Construction Safety

One safety incident occurred on March 13, 2014, at approximately 12:40 PM. An onsite worker was using a chop saw to cut an already-driven pin pile to the proper height above the module. The sparks from the chop saw ignited a brush fire in the marsh adjacent to the structure. The brush fire quickly expanded and became uncontrollable. A stop work order was issued by the CO for all work onsite for the remainder of the day. A safety meeting was held the following morning between the COR and Jansen's work force. A written report outlining incident specific safety measures was proposed by Jansen's superintendent and approved by NRCS. There were no injuries sustained or damages that occurred to equipment or supplies. Approximately 50 acres of marsh adjacent to the job site burned and self-extinguished within 24 hours.

13. Additional Comments

See attached NRCS Supplement

14. Significant Construction Dates:

	Date	Bid I.D.
Site Showing 1/	November 16, 2011	
Bid Opening 2/	March 15, 2012	AG-7217-S-12-0003
Construction Contract Award	9/9/2013	AG-7217-C-13-0011
Preconstruction Conference	9/26/2013	
Notice to Proceed	11/27/2013	
Mobilization	02/28/2014	
Construction Start	03/01/2014	

Construction Completion	03/19/2014	
Final Inspection	3/18/2014	
Release of Claims	3/	
Close-out Meeting	06/25/2014	

1/ Refer to Item #3 in this report. A site showing was held for all potential offerors submitting proposals for Phase 1.

2/ Refer to Item #3 in this report. An RFP was posted on FedBizOps for Phase 1 with proposals due on the date shown.

3/ - This item will be completed after the contract is closed (after 3 yr monitoring).

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NRCS SUPPLEMENT TO COMPLETION REPORT

PROJECT NAME	**Non-Rock Alternative to Shoreline Protection Demonstration Project**
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CONSTRUCTION SPECIFICATIONS

List any significant items in the construction specifications which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM IN SPECIFICATIONS	RECOMMENDATIONS FOR FUTURE CONTRACTS
• This item was completed by the contractor	

CONSTRUCTION PLANS

List any significant items in the construction plans which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM ON THE PLANS	RECOMMENDATIONS FOR FUTURE CONTRACTS
• This item was completed by the contractor	

GENERAL COMMENTS

List any significant items which worked well and should be repeated or which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM	RECOMMENDATIONS FOR FUTURE CONTRACTS
Piling Connections	The original bolt connection were not strong enough and eventually failed – the revision to the connection seems to be holding fairly well – in the future they will look at something that is quicker to complete in the field other than welding gusset plates
Site Location	This particular site did not allow keying the structure back into the land. This would help in the future.

Site Location	The contractor would prefer to be able to excavate the area so that they could get the structure closer to the shoreline. Currently they are 30' or so off of the shoreline in some locations.
Gaps between units	The contractor has come up with a casting unit that has a ball & socket joint that is continuous from top to bottom and will still allow alignment shifts. These would be lined with rubber. They are also looking at extending the rubber bumper all the way to the top of the structure.
Cables	The cables are helpful for pulling the units together but they are not needed afterwards, therefore do not need to stay in place.
Number of Pilings	The number of pilings may change in the future, depending on soil conditions. This may be even reduced down to two battered piles.
Grout Connections	The need to grout the connections may be eliminated if the contractor can find a secure connection that will not allow any movement in the structure.
Size of Units	The units can be sized for any depth of water for future projects.
Pile Coatings	The current calculations indicate that the current piles should last 20 years, however they could get coated piles to ensure the lifespan.