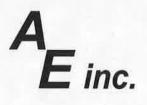
# Exhibit EE. Hero's Point Site Wetlands Delineation Report







# **E** inc. Acadian Engineers

& Environmental Consultants Inc.

Andre' Aucoin, P.E., Pres. Don Gladfelter, P.L.S. James A. Ducote, P.E., P.L.S., (1934-2005)

October 18, 2018

Mr. Zach Hager One Acadian 804 East St. Mary Blvd. Lafayette, Louisiana 70503

# Hero's Point Site Wetlands Delineation Report

RE: Site Review / Wetland & Stream Field Survey Report Hero's Point Lafayette Parish, Louisiana File #18-57 CSRS

CSRS ID #214002

Dear Mr. Hager:

Attached by email; find one (1) copy of the Wetlands Report, for the above referenced project, for your further handling and processing.

Please advise if any additional information is needed concerning this matter.

Sincerely,

ACADIAN ENGINEERS & ENVIRONMENTAL CONSULTANTS INC.

Andre' Aucoin, P.E.

AA/lpg

Enclosures/3

CC: Elliott Boudreaux, CSRS (email) Taylor Gravois, CSRS (email)

//server/18-57 One Acadiana - Wetland Report

1601 Amazon St. • P.O. Box 1126 • Eunice, Louisiana 70535-1126 Ph. (337) 457-1492 • Toll Free (800) 264-1492 • Fax (337) 457-1493 E-Mail: andre@acadianengineers.com Web Page: acadianengineers.com

#### SITE REVIEW – WETLAND AND STREAM FIELD SURVEY REPORT HERO'S POINT SITE LAFAYETTE PARISH, LOUISIANA

ONE ACADIANA CONTACT PERSON: ZACH HAGER 804 EAST ST. MARY BLVD. LAFAYETTE, LOUISIANA 70503

CONSULTANT ACADIAN ENGINEERS & ENVIRONMENTAL CONSULTANTS INC. CONTACT PERSON: ANDRE' AUCOIN, PE POST OFFICE BOX 1126 EUNICE, LOUISIANA 70535-1126 PHONE: 337/457-1492

Approved By: Andre' Aucoin, P/E.

Date Submitted: OCTOBER, 2018; REV 10/17/18 G:ONE ACADIANA - 1857 WETLAND REPORT

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#### SITE REVIEW – WETLAND AND STREAM FIELD SURVEY REPORT HERO'S POINT SITE LAFAYETTE PARISH, LOUISIANA

#### I. INTRODUCTION

Acadian Engineers & Environmental Consultants Inc. (Acadian) was contracted by One Acadiana on August 16, 2018 to perform a Wetland Delineation of an approximate twenty-one (21) acre tract situated in Section 23, Township 9 South, Range 4 East, Lafayette Parish, Louisiana, as shown on Figure No. 1, Site Location Map.

The Delineation investigation is intended to assess the potential for future development under the Louisiana Economic Development Strategic Site Inventory Program, One Acadiana umbrella of assistance and promotion. Program specifications for new Site Search Initiative (SSI) reportedly require a minimum of ten (10) acres of useable/non wet property to qualify for participation with One Acadiana for future site development.

#### II. SITE DESCRIPTION

The subject property is currently vacant with no apparent evidence of previous development of the tract. Although some apparent drainage alternations of the property appear to have been performed on the northern half of said property.

The site limits are shown on Figure No. 2, Site Plan. The property fronts Louisiana Highway 182 (Carencro Highway) along its Eastern boundary, is bounded along its Southern boundary by Renaud Road, along its Western boundary by a business park development and vacant pasture land and along its Northern boundary by a small forested tract and pasture land.

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#### III. SITE INVESTIGATION

Site observations were performed on Tuesday, September 11, 2018 and Thursday, September 13, 2018. Site surveys and wetland delineation definition was performed by Acadian using a Trimble GPS and Rover by environmental staff personnel on Thursday, September 13, 2018, Monday, September 17, 2018 and Tuesday, September 18, 2018.

The September 11<sup>th</sup> and September 13<sup>th</sup> site reconnaissance consisted of investigation and performance of the following:

- Site Hydrology/Hydraulics
- Vegetative Types/Identification
- Hydric Soil Spot Check Attempt
- Image/Photo Acquisition

The September 13, 17 and 18<sup>th</sup> site survey consisted primarily of wetland delineation definition by survey.

#### IV. FINDINGS / OBSERVATIONS

#### a. Site Hydraulics

Site survey data and historical mapping review reveal that stormwater runoff from the site ultimately flows south and west till once it reaches its main outfall channel which is located along the western boundary of the site. The main outfall channel begins north of the site, continues southerly along the western boundary and proceeds behind the Frito Lay facility and continues to flow south under Interstate Highway 10, through the City of Lafayette till its ultimate outfall into the Vermillion River. Stormwater runoff from the site reaches this channel by two separate means. The southern portion of the site flows south southwesterly till its outfall into the northern roadside ditch of Renaud Drive which flows west to the ultimate outfall channel. The remainder of the site flows westerly till it is intercepted by a manmade drainage ditch which discharges into the outfall channel by means of a thirty (30") inch concrete culvert.

Site elevations range from approximately thirty-five (35) feet above mean sea level (MSL) in its upper reaches to approximately thirty and one half (30.5') feet MSL at the lower reaches of the site's drainage basins; although the large majority of the site ranges from thirty-four (34') feet MSL to thirty-three (33') feet MSL with an approximate slope of 2.5% over much of the site.

Visual observation revealed the following:

- Two (2) areas in the southern extremities revealed deeper levels of standing water which appear to be the lower regions (topographically) of the micro watersheds which flow into the Renaud Drive roadside ditch.
- An area of topographical depression (0.3 acres) near the center of the site retaining water at greater levels than its contiguous areas due to a manmade anomaly apparently created by the installation of a public utility (sanitary sewer) which traverses east-west across the site.
- An approximate one (1) acre topographic surface depression (evidenced by deeper levels of standing water) in the northern half of the site which ultimately drains west to the main drainage outfall of the site.
- A ditch which flows westerly across the northern portion of the site which is facilitated by an apparent manmade gathering basin which creates a surface depression ranging from 2.5' to 3.5' below natural ground over a span ranging from 45' to 65' in width.

These areas either exist at considerably lower topographic elevations than the adjoining areas or natural drainage is impeded resulting in areas which require evaporation and or absorption to reach dryness. These areas are shown on the Wetland Delineation Map, Figure No. 4.

#### b. Vegetation Types

The large majority of the site is blanketed with coastal prairie grasses, although some trees typical of south Louisiana ecosystems are found in areas which apparently have not been subjected to mowing and other vegetative management practices. These consist of:

- Chinese Tallow-Sapium Sebiferum (Chicken Tree-Non Native Invasive Species) (FAC)
- Coastal Plain Willow Tree Salix Caroliniana (OBL)

The site was found to consist of several types of grasses varying in predominance. These are:

- Eastern Gama grass Tripsacum Dactybides (FAC)
- Smith Grass Panicum Virgatum (FAC)
- Little Bluestem Shizachyrium (FACU)
- Florida Paspalum-Paspalum floridanum Michx (FACW)
- Knott root Bristlegrass Setaria Parviflora (FACW)

The grass species provide in excess of ninety (90%) percent of site coverage. The five (5) species of grasses exist in varying degrees of wetland environments as presented. The plant indicator status of each is described as follows:

- OBL Plants that have a near 99% probability of occurring in wetlands
- FAC Plants with similar likelihood (estimated probability 33%-67%) of occurring in both wetlands and non-wetlands.
- FACU Plants that occur sometimes (estimated probability 1%-<33%) in wetlands, but occur more often (estimated probability >67%-99%) in non-wetlands.
- FACW Plants that occur usually (>67%-99%) in wetlands, but also occur (estimated probability 1%-33%) in non-wetlands

During the site visit it was observed that the coastal prairie grass vegetation within the lower areas (located in sites of lower topography) of the site; not adjoining the sites drainage ditch, were found to exhibit a darker shade of green typical of extended periods of moisture exposure as compared to the balance of the site. This phenomenon also coincided with historical mapping review.

#### V. SOIL TYPES

The study areas soil properties were researched utilizing United States Department of Agriculture (USDA) Natural Resource Conservation Services (NRCS) data bases. NRCS documentation indicates the entirety of the site consists of FOA/Frost Silt Loam which is considered a hydric soil as shown on Figure No. 3, Soil Survey Map.

Due to recent rainfall events, the site surface exhibited excessive moisture levels which prevented the performance of a site soil survey. Due to the absence of "Normal Circumstances" existing at the time of the study, no extensive grid arranged soil survey was performed.

#### VI. DELINEATION

The limits of the site which reveal obvious characteristics of a wetland system as determined by the site hydrology/hydraulics and vegetation types was surveyed in accordance with topographical control standards. Acadian used a Trimble R8 GPS System and Rover Unit using Real Time Kinematic (RTK) control with Centimeter (cm) accuracy.

The Wetland Delineation based upon this study is shown on Figure No. 4, Wetlands Delineation Map. Based upon the data acquired, the investigation reveals approximately 3.7 acres of the approximate twenty-one (21) acre site (16%) is **WETLAND.** As shown on Figure No. 4 the designated WET areas consist of :

#### OTHER WATERS (0.7 acres)

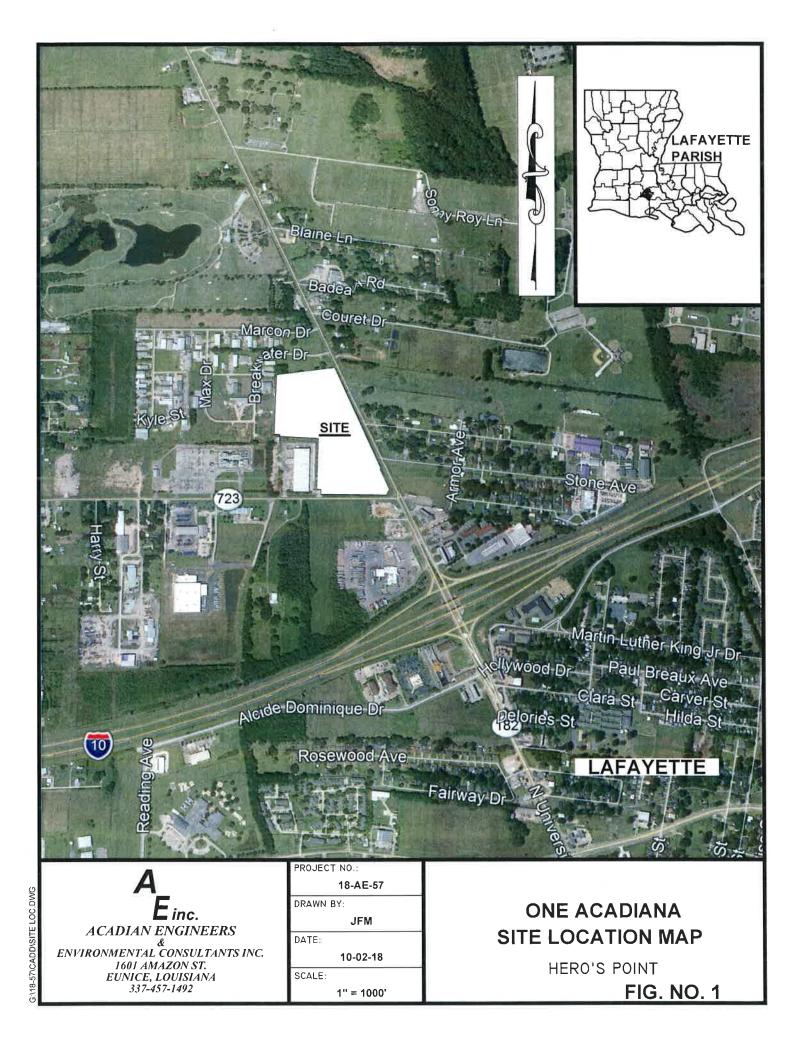
• Drainage ditches (0.7 acres),

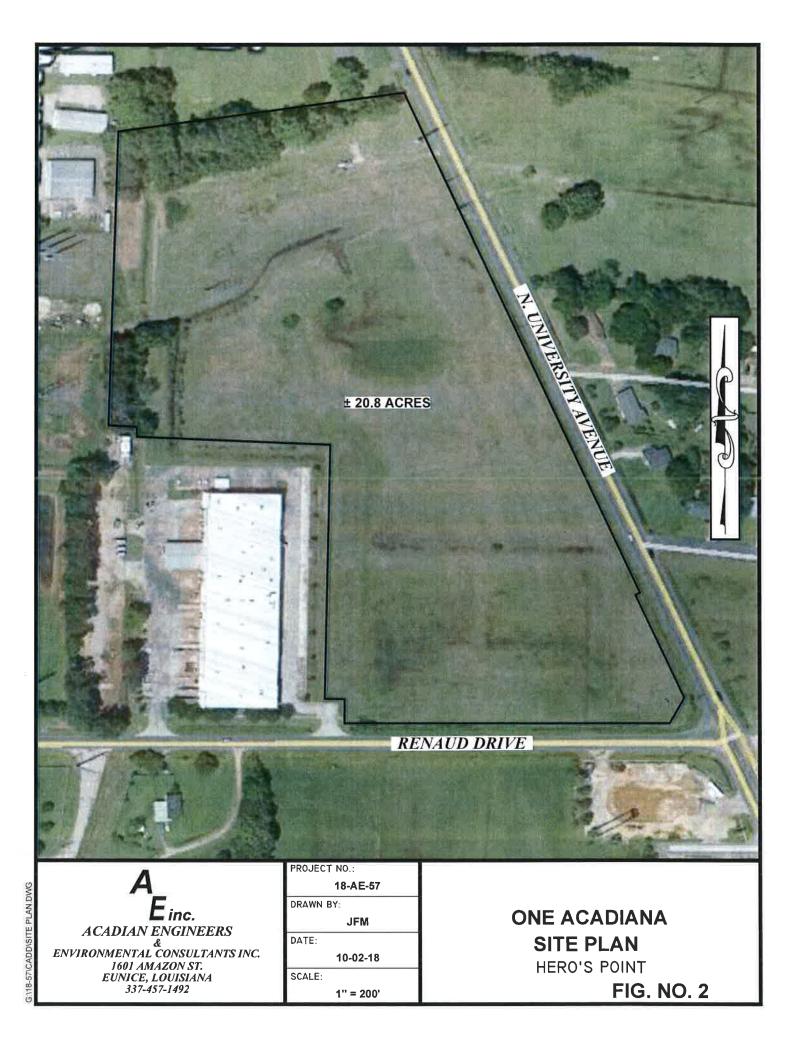
#### WET/POORLY DRAINED (3.0 acres)

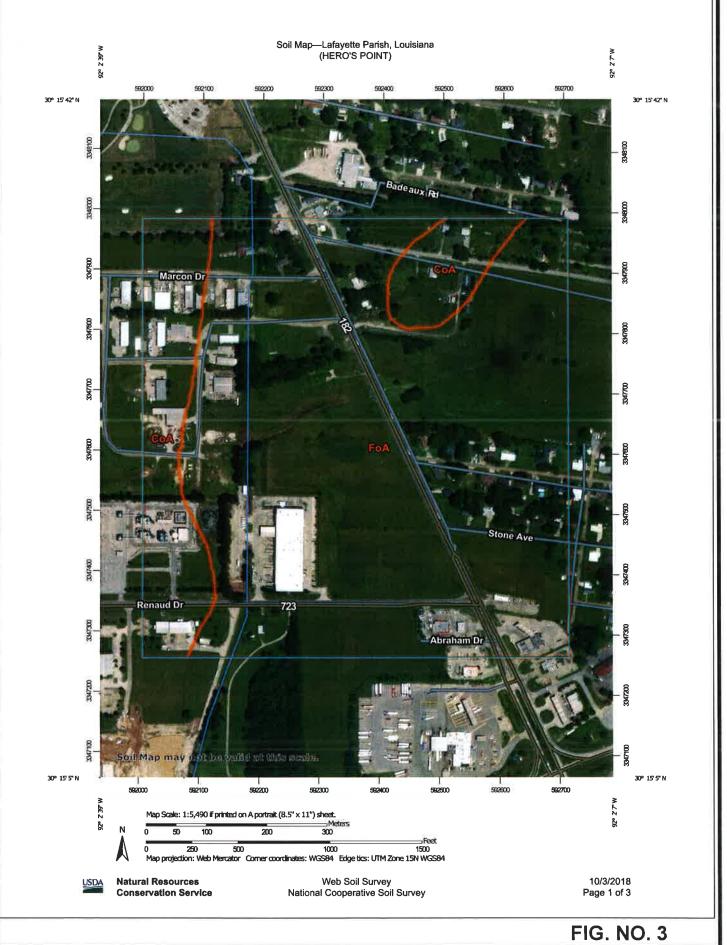
- Area of lower topographical elevation due to manmade surface manipulation to facilitate drainage (0.5 acres);
- Site surface settlement resulting from the placement of public utility (0.3 acres); and
- Poorly drained areas located at the lower end of the site's micro water sheds which exhibit marginally lower surface elevations as compared to the non-wet contiguous areas which require evaporation and/or other natural mechanisms to reach dryness (1.2 acres).

The "wet" area designations are based upon the site hydrology/hydraulic conditions occurring in combination with site vegetation types (OBL, FAC, FACU and FACW).

# FIGURES







G:\18-57\CADD\SOIL MAP.DWG

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G:\18-57\CADD\SOIL MAP.DWG

MAP INFORMATION	The soil surveys that comprise your AOI were mapped at			warning: Soil Map may not be valid at mis scale.	Enlargement of maps beyond the scale of mapping can cause	misunderstanding of the detail of mapping and accuracy of soil	line placement. The maps do not show the small areas of	contrasting soils that could have been shown at a more detailed		Please rely on the bar scale on each map sheet for map	ţs.	a. Natural Docourooc Concentation Service	p. Natural Accountes Conservation Dervice	vstem: Web Mercator (EPSG:3857)	Mans from the Weh Soil Survey are based on the Weh Mercator	projection, which preserves direction and shape but distorts	distance and area. A projection that preserves area, such as the	Albers equal-area conic projection, should be used if more	accurate calculations of distance of area are required.	This product is generated from the USDA-NRCS certified data as of the version date(s) listed helow	roo:   afavotta Dr. ' criteiana	. Versi , Jep	s مـ ما (as space allows) for map scales		uerial images were photographed: May 27, 2012Sep		The orthophoto or other base map on which the soil lines were	compiled and digitized probably differs from the background	shifting of map unit boundaries may be evident.			
	Spoil Area The soil surve	1:24,000.		Very Story Spot	Wet Spot		Other line placemer	Special Line Features		aams and Canals		tion Source of Man:	Rails Web Soil Survey IRI	Interstate Highways Coordinate System:	US Routes Mans from th			Local Roads Albers equal-		Aerial Photography	Coll Current Area	Survey Area Data:	Soil map units	1:50,000	L Leria	, 2017	The orthopho	compiled and	shifting of ma			
MAP LEGEND	(VOI)	lerest (AOI)		Soil Man Linit Polynons	2	Soil Map Unit Lines	Soil Map Unit Points		reatures Water Faatures		Borrow Pit	Clar C of		Depression	łc	, Spot		Ì	3W Background	ir swamp	Quarry	Miscenaneous Water	Perennial Water	Rock Outcrop	Saline Spot		sariuy spor	Severely Eroded Spot	Sinkhole	Slide or Slip	Sodic Spot	
	Area of Interest (AOI)	Area	] 40	_		Soil	Soil		1	© Blowout	Вол				ев Х	Ga			A Lav	Mar 🛃	Min	Misu Misu	O Pere		L Salin	- :		Seve	Sinkl	Slide Slide	Sodi	

HERO'S POINT

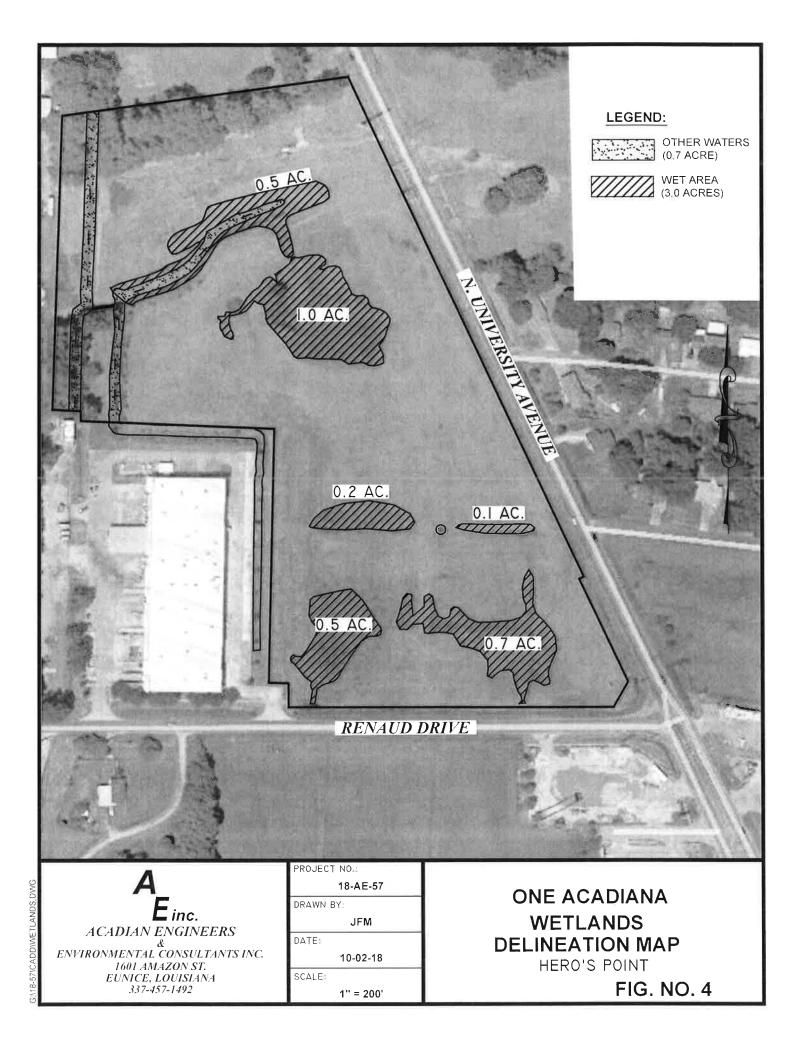
### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres In AOI	Percent of AOI
СоА	Coteau silt loam, 0 to 1 percent slopes	22.9	17.9%
FoA	Frost silt loam, 0 to 1 percent slopes	104.9	82.1%
Totals for Area of Interest		127.9	100.0%

USDA

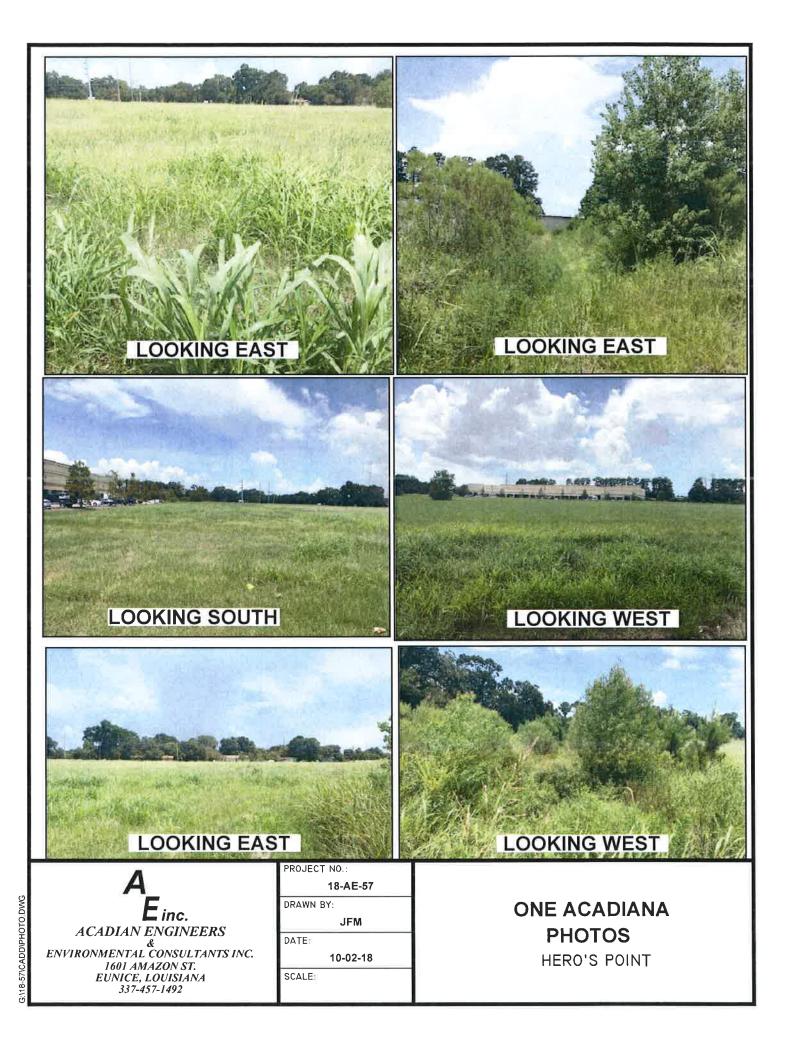
Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey 10/3/2018 Page 3 of 3

### FIG. NO. 3



# APPENDIX A

# PHOTOS



## APPENDIX B WETLANDS DELINEATION QUESTIONNAIRE

Wetlands	Delineation Questionn	ai	ire	Site Name: Hero's F	Point
				CSRS Project ID: 214002	
			SITE	Leikiyatti (A. 1.000 2.000 4.000	
Date:	10/02/2018		Zip Code:	70535	
Provider Name:	Acadian Engineers		Name:	Andre' Aucoin	
Address:	PO Box 1126		Phone:	(337) 457-1492	
City:	Eunice		Email:	andre@acadianengi	ineers.com
State:	Louisiana		Title:	President	
Identify any bod	lies of water or wetlands on or abutting th	ne	site and ide	ntify the authority with ju	risdiction over them.
Waterway/wetlan	d 1 N/A	Αι	uthority 1 N	Ά	
Waterway/wetlan	d 2 N/A	Αι	uthority 2 N	Ά	
Waterway/wetlan	d 3 N/A	Αι	uthority 3 N	/A	
Waterway/wetlan	d 4 N/A	Αι	uthority 4 N	/A	
Waterway/wetlan	d 5 N/A	Aι	uthority 5 N,	Ά	
Waterway/wetlan	d 6 N/A	Αι	uthority 6 N	/A	
Do wetlands and	l/or other waterways exist on or near the	sit	te? OYes	s () No	
lf wetlands are p	resent, has a Section 404 Permit Applica	tio	on been sub	mitted? OYes 🧿	No
Has a Section 40	4 Permit Application been approved?		OYes	● No	
lf wetlands are p	resent, have all wetlands on site been mi	itig	gated?	Yes 💿 No	
					Submit Form