

July 16, 2024

3:30 pm, CST

Statement of Qualifications

SOQ NO. 24-020

Coastal Engineering Consulting Services as
needed parish wide



p i v o t a l
e n g i n e e r i n g

A Full Service MEP, Civil and Environmental Firm



PIVOTAL ENGINEERING, LLC

3925 N. I-10 SERVICE ROAD W., SUITE 109R

METAIRIE, LA, 70002

OFFICE: 504-799-3653

FAX: 504-799-3654

Table of Contents

Contents

- I. Pivotal Engineering TEC Form**
- II. BFM TEC Form**
- III. Gulf South Engineering & Testing Inc TEC Form**
- IV. SOQ Package**
 - a. Introduction**
 - b. Organizational Chart**
 - c. Personnel Qualification**
 - d. Team Profiles & Experience**
 - i. Team Profiles**
 - 1. Pivotal Engineering**
 - 2. BFM**
 - 3. Gulf South**
 - ii. Experience with Similar Projects**

Attachments

- A. LAPELS License**
- B. Key Staff Licenses**

SOQ – Table of Contents

Sections	Page
1. Introduction.....	1 – 1
2. Organization Chart.....	2 – 1
3. Personnel Qualifications	3 – 1
4. Team Profiles & Experience.....	4 – 1

Section One

TEC Form for Pivotal Engineering

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Coastal Engineering Consulting Services as needed parish wide ; Resolution No. 144205

B. Firm Name & Address:



3925 N. I-10 Service Road W., Suite 109R
Metairie, LA 70002

C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Avinash Mehta, PE, President

Principal-In-Charge

3925 N. I-10 Service Road W., Suite 109R
Metairie, LA 70002

Office 504-799-3653; Cell 504-559-6518

amehta@pivotaleng.com ; Registered PE (Louisiana No. 35100)

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.

Tarek Elnaggar, PE

Principal-In-Charge

3925 N. I-10 Service Road W., Suite 109R
Metairie, LA 70002

Office 504-799-3653

telnaggar@pivotaleng.com ; Registered PE (Louisiana No. 23832)

E. Please provide the number of employees whose primary function corresponds with each category:

<u>2</u> Administrative	<u>2</u> Estimators	<u> </u> Specification Writers
<u>1</u> Architects (Licensed)	<u> </u> Geologists	<u>1</u> Structural Engineers
<u> </u> Chemical Engineers	<u> </u> Geotechnical Engineers	<u> </u> Graduate Engineers
<u>7</u> Civil Engineers	<u> </u> Interior Designers	<u>1</u> Project Managers
<u>8</u> Construction Inspectors	<u> </u> Landscape Architects	<u>1</u> Clerical
<u> </u> Ecologists	<u> </u> Land Surveyor	<u> </u> Grant/Funding Specialist
<u>2</u> Electrical Engineers	<u>1</u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u>3</u> Engineer Intern	<u>2</u> Environmental Engineers	
<u> </u> Professional Land Surveyors		<u>31</u> TOTAL

F. Is this submittal by a JOINT-VENTURE? Please check: YES ☐ NO ☒

If marked "No" skip to Section I. If marked "yes" complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.

1. N/A

H. Has this JOINT-VENTURE previously worked together? Please check:

YES ☐ NO ☐

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1) BFM Corporation, LLC 15 Veterans Memorial Blvd Metairie, LA 70062	Surveying	Yes
2) Gulf South Engineering & Testing, Inc. 15 Veterans Memorial Blvd Metairie, LA 70062	Geotechnical Engineering & Testing	Yes
3.		

J. Please specify the total number of support personnel that may assist in the completion of this Project:

31

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Tarek Elnaggar, P.E.

Project Assignment:

Professional In Charge - Senior Environmental Engineer

Name of Firm with which associated:

Pivotal Engineering, LLC

Years' experience with this Firm:

12

Education: Degree(s)/Year/Specialization:

MS. 1988 University of California Berkeley, Environmental Engineer
BS 1985 Louisiana State University, Civil/Environmental Engineer

Active registration: Year first registered/discipline:

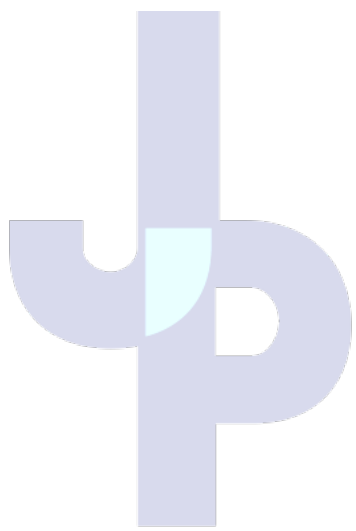
1990 /Civil Engineer
1994 / Environmental Engineer

Other experience and qualifications relevant to the proposed Project:

- Nelson Plant Beneficial Use Sampling Application; West Lake, LA
- Entergy Nine Mile Levee Permits; New Orleans, LA
- Nelson Coal Ash Landfill Permit Modification and Vertical Expansion; Westlake, LA
- Blind River Fresh Water Diversion; LaPlace, LA
- Entergy, LLC Nelson Debris Pile RECAP; West Lake, LA
- City of Shreveport Woolworth Road Landfill; Shreveport, LA
- Waste Management of Louisiana, LLC, Woodside Landfill; Walker, LA
- Waste Management of Louisiana, LLC, Reliable Landfill; Livonia, LA
- Entergy Corporation Nelson Coal Ash Landfill; West Lake, LA
- Waste Management of Mississippi, Inc., Pecan Grove Landfill; Gulfport, MS
- Nelson Coal Ash Landfill Permit Modification and Vertical Expansion; Westlake, LA

Experience Includes:

Mr. Elnaggar serves as a Principal of Pivotal Engineering LLC. He is the lead civil and environmental engineer for the company. His experience includes design and construction management for civil and environmental projects including water main extensions, water permitting and compliance with DHH, risk assessments, air permitting and compliance, emission inventories and reporting, groundwater investigations, regulatory compliance, environmental process design, permitting, and water and waste treatment system design.



Jefferson
Parish
State of Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Avinash Mehta, P.E., Principal In Charge
Project Assignment:
Principal In Charge/ Professional In Charge- Client Relations
Name of Firm with which associated:
Pivotal Engineering, LLC
Years' experience with this Firm:
12
Education: Degree(s)/Year/Specialization:
M.S. / 2003 / Civil Engineering B.S. / 2000 / Civil Engineering
Active registration: Year first registered/discipline:
2009 / Civil Engineering
Other experience and qualifications relevant to the proposed Project:
<ul style="list-style-type: none">Entergy LA Station; Baton Rouge, LAEntergy Corporation Nelson Coal Ash Landfill; West Lake, LABlind River Fresh Water Diversion; LaPlace, LACity of Shreveport Woolworth Road Landfill; Shreveport, LAPerryville Plant Beneficial Use Application; Sterlington, LAEntergy LA Station; Baton Rouge, LAGulf of Mexico Cooperative Agreements for Fritchie Marsh Wetland Assimilation Project; City of Slidell, LAGulf of Mexico Cooperative Agreements for Bayou Pattasat Improvement: Phase 1 & 2; City of Slidell, LABlind River Fresh Water Diversion; LaPlace, LATurtle Pond Pump Station; St. Charles Parish, LABroadmoor Lift Station Improvements, City of Shreveport, Louisiana
Experience includes: Mr. Mehta serves as a Principal of Pivotal Engineering. Mr. Mehta has over 16 years of experience managing Civil and Environmental Engineering projects including project budget, schedule and scope, coordination of resources, business development and client liaison activities. His experience includes performing engineering analysis for designing coastal facilities, erosion prevention, flood control, artificial harbor construction and dredging operations.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Yoseph Shifare, PE, PTOE, PMP
Project Assignment:
Civil Project Engineer
Name of Firm with which associated:
Pivotal Engineering, LLC
Years' experience with this Firm:
12
Education: Degree(s)/Year/Specialization:
B.S. / 2001 / Civil Engineering M.S. / 2014 / Civil Engineering
Active registration: Year first registered/discipline:
2018 / Civil PE #42747
Other experience and qualifications relevant to the proposed Project:
<ul style="list-style-type: none">• Blind River Fresh Water Diversion; LaPlace, LA• Turtle Pond Pump Station; St. Charles Parish, LA• Entergy, Coal Ash Landfill, Westlake Louisiana.• Sewer Pump Station Testing; New Orleans, Louisiana• Clearview & Airline Intersection Improvements; Jefferson Parish, LA• Wright Road Improvements; Jefferson Parish, LA• Labarre Road Railroad Crossing Improvement; Jefferson Parish, LA• Southbound Westwood Drive Rehabilitation; Kenner, LA
Experience includes: Mr. Shifare serves as a Project Director of Pivotal Engineering in charge of Civil/Coastal Engineering projects. He has over 17 years of project and construction management experience for public infrastructures, industrial, commercial and private facilities. As a project director he designs, leads and manages the day to day efforts of engineers on projects that include performing engineering analysis and designing of coastal facilities, analyze all coastal hazards and model all hydrodynamics for various processes and monitor all coastal shoreline restoration processes and associate to resolve all mitigation processes. Mr. Shifare is responsible to client liaison, manage the strategic aspects of project engagement, review high-level project deliverables, provides leadership, project accounting and ensures the engineering practice meets or exceeds industry standard.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Eliot Guerin, PE
Project Assignment:
Civil Engineer
Name of Firm with which associated:
Pivotal Engineering, L.L.C.
Years' experience with this Firm:
5
Education: Degree(s)/Year/Specialization:
B.S. / 2018 / Civil Engineering
Active registration: Year first registered/discipline:
LA PE #0047729 / 2023 / Civil Engineering
Other experience and qualifications relevant to the proposed Project:
<ul style="list-style-type: none">• Coal Ash Landfill, Westlake, LA• Sewer Pump Station Testing; New Orleans, Louisiana• Phoebe Hearst Elementary School: Re-Surface Asphalt and Repair Damage, Jefferson Parish Public School System, Jefferson Parish, Louisiana• H6-5 Smith & Toulouse Lift Station Improvements, Department of Sewerage, Jefferson Parish, Louisiana• Pritchard Road Extension, Public Works Department, Jefferson Parish, Louisiana• Freeport LNG Liquefaction Project, Freeport LNG, Freeport, Texas• Coal Ash Landfill, Westlake, LA
Experience includes:
<p>Mr. Guerin is a civil engineer with 5 years of experience at Pivotal Engineering, focusing on roadway, sanitary sewer, and storm drainage design. So far, he has done design in these areas for several projects which span municipal utilities to school infrastructure. He has also contributed drafting work, estimation, and contract preparation for Pivotal Engineering. In addition, Mr. Guerin has 6 months of experience at Zachry Group over the course of two internships, one of which was at an active construction site, and contributed a significant amount of estimating work for new power plant construction during this tenure.</p>

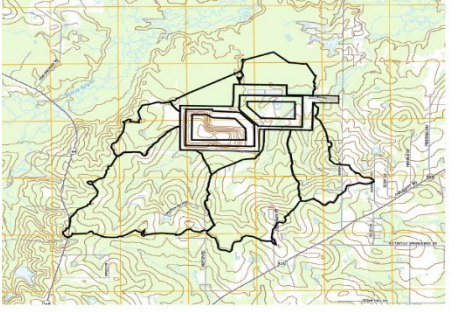
TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Bryan B. Smith, P.E.
Project Assignment:
Environmental Project Engineer
Name of Firm with which associated:
Pivotal Engineering, LLC
Years' experience with this Firm:
7
Education: Degree(s)/Year/Specialization:
BS / 2011 / Environmental Engineering MS / 2014 / Civil and Environmental Engineering
Active registration: Year first registered/discipline:
2015 / Environmental / PE # 43843
Other experience and qualifications relevant to the proposed Project:
<ul style="list-style-type: none">• Entergy LA Station; Baton Rouge, LA• Entergy Corporation Nelson Coal Ash Landfill; West Lake, LA• Blind River Fresh Water Diversion; LaPlace, LA• Coal Ash Disposal Landfill: Construction Management and Design; Westlake, Louisiana• Recovery Roads Phase III; New Orleans, Louisiana• Radon Mitigation by Active Soil Depressurization (ASD) System; Loveland, Colorado• Wastewater Treatment Plant Improvements; New Orleans, Louisiana• Hazard Mitigation Wind Retrofit of Parish-Owned Facilities; New Orleans, Louisiana• Sewer Pump Station Testing; New Orleans, Louisiana
Experience includes:
Mr. Smith serves as a project engineer at Pivotal Engineering, LLC in support of civil and environmental engineering projects. His projects range from public to private sector and require effort in both the field and the office. He has experience in infrastructure design, project management, permitting, field sampling, flow rate testing and laboratory analysis.

TEC Professional Services Questionnaire

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 1

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
H&H Modeling and Design of 682-acre Drainage Catchment Basin City of Shreveport Chris Wilder (318) 673-6361	In support of comprehensive drainage system revisions, Pivotal performed hydraulic and hydrologic (H&H) modeling for a 682-acre catchment area. Pivotal staff used Autodesk® Storm and Sanitary Analysis to analyze each subbasin. This analysis was the basis for designing improvements to an existing drainage system.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2013	\$1,100,000	\$270,000

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
CADL H&H Modeling and Design of 200-acre Drainage Catchment Area Nelson Morvant (225) 454-0287	In support of environmental compliance activities, Pivotal designed a drainage system for a 200-acre environmental facility, located in Westlake, Louisiana. Pivotal staff were able to identify areas of deficiency within the current design and to re-design the drainage system to meet expected flowrates. Pivotal staff used Autodesk® Storm and Sanitary Analysis to analyze each subbasin with the drainage catchment area.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
12/2017	\$6,500,000	\$1,260,000

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
Coastal Use Permitting for Dredge Activities Austin Langley (337) 304-1766	On behalf of Entergy Louisiana, Pivotal Engineering has applied for and received numerous coastal use permits (CUPs) for Mississippi River dredging activities. Pivotal completed the permit application, managed surveying activities and developed the drawings set. Throughout the permitting process, Pivotal coordinated with all stakeholders to ensure that all individual requirements were met and that each phase of the approval process was kept moving forward. Stakeholders included Louisiana Department of Natural Resources, United State Army Corps of Engineers, Coastal Protection Restoration Authority and Pontchartrain Levee Board.	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2019	\$350,000	\$35,000

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Beneficial Use of Dredged Material, Westlake, LA Nelson Morvant (225) 454-0287	Pivotal conducted soil sampling of dredged material. Detections were compared to RECAP standards and recommendations for beneficial use of material was submitted to the client via a formal report. On behalf of the client, Pivotal prepared the beneficial use application and was successful in obtaining approval for on-site reuse of the material.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2019	\$260,000	\$22,000

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
NASA Solar Station Michoud, LA Nelson Morvant (225) 454-0287	Prior to installing the 200-acre solar station, Pivotal was retained to perform multi-media sampling and risk-based analysis of the layout area. Pivotal developed a sampling and analysis plan based on prior reports and investigations. Pivotal performed soil and groundwater sampling and compared all detections to the developed risk-based standards.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2020	\$42,000,000	\$230,000

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Ingalls Shipbuilding, Avondale Mainyard, Avondale, LA Brian McVeigh (228) 935-3919	Pivotal performed Environmental Site Assessment of 250-acre ship manufacturing facility. Reviewed historical records dating to 1890s and operational data from 1930s. Team conducted details site inspections to locate prudential environmental concerns. The objective of this project is to conduct an Environmental Site Assessment (ESA) of the Property in accordance with the "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," ASTM Standard E1527-13 (2013), in part to establish the CERCLA "Innocent Land Owner Defense" and whether any potential Recognized Environmental Conditions which can cause a "Business Environmental Risk" (BER) (as defined in ASTM Standard E1527-13) that could adversely impact the Property. Use of ASTM Standard E1527-13 intends to constitute "All Appropriate Inquiries" for establishing Land Owner Liability Protection under the Brownfield Amendments.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2018	\$70,000,000	\$52,000

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Entergy Corporation Sterlington Generation Facility Sterlington, LA Kathy Brown (318) 732-1385	Pivotal prepared risk assessment for closure of wastewater ponds approved by Louisiana Department of Environmental Quality (LDEQ) for "No Further Action."	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2015	\$550,000	\$550,000

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Lead Contaminated Soil at Industrial Facility Baton Rouge, LA Nelson Morvant (225) 454-0287	Due to concerns of lead contamination near an existing water tower, Pivotal was retained to delineate and evaluation lead concentrations in soil samples. Pivotal performed soil sampling and determined the extent of contamination. CAD and GIS were used to produce modeling outputs of the extent of contamination.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2018	\$150,000	\$150,000

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
RECAP Evaluation for Closure Activities at Permitted Surface Impoundments Michoud, LA Nelson Morvant (225) 454-0287	Pivotal generated a RECAP Evaluation of constituent detections at two LDEQ-permitted surface impoundments at an industrial site. Pivotal coordinated with LDEQ representatives to ensure timely approval of the report. The approved report allowed the closure activities to proceed on schedule.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2017	\$1,400,0000	\$375,000

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
RECAP Evaluation for Surface Impoundment, Westlake, LA Nelson Morvant (225) 454-0287	In support of the groundwater monitoring program at RCRA solid waste management unit, Pivotal was retained to update the groundwater protection standards for the assessment monitoring program. The updated report was approved by LDEQ.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2021	\$1,100,000	\$1,100,000

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A	N/A	There are no prior/on-going litigations between Pivotal Engineering, LLC & Jefferson Parish.
2.		
3.		
4.		

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

PIVOTAL ENGINEERING, LLC

Pivotal Engineering, LLC is a full-service engineering design firm based in New Orleans, Louisiana. Pivotal has established a reputation for providing superior service to its clients and delivering quality work on time and within budget. Pivotal's principals and staff have in excess of 200 years of combined experience in civil engineering, mechanical engineering, electrical engineering, environmental engineering and program/project management for both public and private entities across the Gulf South Region. The current staff of Pivotal has extensive experience managing a variety of complex projects, from conception to construction.

Pivotal is a certified Small Business Enterprise with both the Small Business Administration and City of New Orleans. Furthermore, Pivotal has been certified as a Disadvantaged Business Enterprise by the City of New Orleans, Sewerage and Water Board of New Orleans, the New Orleans Aviation Board and Harrah's Casino. Pivotal Engineering is also certified by the Louisiana Department of Economic Development as a Small Entrepreneurship SE (Hudson Initiative) firm.

TEC Professional Services Questionnaire

Required Personnel/Required Firm Qualifications

The person or firm submitting a Statement of Qualifications shall have the following minimum qualifications:

- 1. one principal who is a professional engineer who shall be registered as such in Louisiana**

Avinash Mehta, PE
LA PE # 35100 Civil Engineering

- 2. a professional in charge of the project who is a professional engineer who shall be registered as such in Louisiana with a minimum of five (5) years' experience in the disciplines involved**

Avinash Mehta, PE
LA PE # 35100 Civil Engineering

- 3. one employee who is a professional engineer registered as such in Louisiana in the field or fields of expertise required for the project (A sub-consultant may meet the requirement only if the advertised project involves more than one discipline.)**

Yoseph Shifare, PE, PTOE, PMP
LA PE# 42747 Civil Engineering

Evaluation Criteria

- 1) Professional training and experience in relation to the type of work required for the engineering services**

Pivotal Engineering, LLC has decades of experience assisting communities, agencies, and private entities in meeting their transportation needs on small- and large-scale projects. Pivotal Engineering has built an impressive portfolio of street design projects over the years. Our design experience includes developing new roadways, widening existing roadways, and various minor roadway improvements for state, local, and private facilities. Our team is LDOT prequalified in numerous areas. We are well-trained and very familiar with current industry standards and typical LDOT design practices and procedures. By providing much of the roadway support services in-house such as survey, drainage, environmental, utilities, and construction engineering and inspection (CEI), we are able to provide our clients a complete and comprehensive design effort on every project.

We, at Pivotal Engineering, understands that the “3R” projects- the Resurfacing, Rehabilitation, and Restoration of existing roadways are a common and recurring need in Louisiana. Our Transportation team is ready to address every challenge that comes its way. Our Design elements not only include existing pavement condition survey, pavement section analyses, milling and resurfacing, cross slope correction, shoulder addition and safety improvements, but also include alternative treatments such as Full Depth Reclamation, in-place recycling and various sealing treatments.

The Pivotal Engineering staff members that will be assigned to this contract have extensive, and specialized experience in Roadway Design Engineering and Construction Management for Private Entities, and Government and Municipal Agencies in the Gulf South area. Pivotal Engineering has provided services on numerous projects within surrounding areas involving construction administration, resident inspection, and other services and has specifically inspected over 750 million in construction services since Hurricane Katrina. Our Principals and Staff have gained this experience not only through many years of providing services to this variety of clients on a very diverse portfolio of projects, but also through focused continuing education. Pivotal Engineering's principals and staff have all been given accolades on their

TEC Professional Services Questionnaire

technical competence and knowledge of administering the contract plans and specifications per agency policy and procedure.

Just to summarize, Pivotal's Coastal Engineering experience includes:

Dredging operations

H&H Modeling and Design

Flood Control

Erosion Prevention

Utilities including Pump Stations, Water and Drainage

In the past, Pivotal Engineering has successfully provided Jefferson Parish, City of New Orleans and other surrounding parishes with Professional Design Engineering and Construction Management Services, to support the delivery of projects to assess, design, manage, build and/or repair streets, sidewalks, bikeways, streetlights, traffic signals, drainage systems, bridges, utilities, and other public works infrastructure features city-wide.

2) Size of firm, considering the number of professional and support personnel required to perform the type of engineering tasks

The Pivotal staff includes over 40 professionals driven to excellence and focused on our client's needs. We are made up of 9 Louisiana Licensed Professional Engineers, 7 Engineering Interns, 5 Program and Grant Management personnel, 10 Construction Inspectors, and 1 Licensed Architect. Our staff also includes program managers, CADD technicians, grant specialist, field monitors and administrative support staff, all of which provides years of experience to help ensure that our work is exceptional.

Pivotal not only presents the number of professional and support personnel available to perform this type of engineering tasks, but also demonstrates the breadth and diversity of the capabilities of the staff. Beyond this diversity of capabilities, Pivotal Engineering's Environmental, Planning, Design and Inspection staff has combined experience of greater than 200 years of experience in all phases of project delivery, including electrical, civil, mechanical, environmental, planning, management, design, and construction supervision experience. Professional qualifications include city, state, and federal certifications in safety, management, and a list of other certifications. The Pivotal drafting team is well versed in a variety of software including CIVIL 3D, HEC RAS, H2O MAP and Arc GIS. We ask that you note the resumes included herein for further information.

3) Capacity for timely completion of newly assigned work, considering the factors of type of engineering task, current unfinished workload, and person or firm's available professional and support personnel

The Team at Pivotal has the needed technical personnel to assure Jefferson Parish that all work will be performed in accordance to the contract scope of work and in strict conformance with the latest Codes, guidelines and standards. Pivotal Engineering has a depth of technical capabilities and expertise to complete the assigned work in a timely manner. Pivotal staff has a reputation of project delivery both on time and within budget. Pivotal Engineering's current workload will allow for quick assignment of technical resources to the project at hand. The firm has the required management and field personnel readily available to begin the

TEC Professional Services Questionnaire

necessary services upon written notification.

Previously, Pivotal has provided a direct line of communication to anyone who is a representative of the client to the assigned Project Principal and Manager. It has been our goal to make communication a priority. We've provided cell lines as the first line of communication, followed by e-mail transmissions and office lines as last resorts. We do not let calls or e-mails go unanswered more than 24-hours and with this have seen huge success as it relates to our client's reliance on us as their consultant of choice.

Approach to Agency Coordination:

The Pivotal Team will identify responsible agencies as early as practical. The Team will notify the Jefferson Parish and address technically any issues of concern regarding the project's scope, potential infrastructure, environmental, social, or economic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. The team will assure that agencies are fully engaged in the scoping of the project and the decisions regarding alternatives to be evaluated in detail in the design.

The Team understands an agency's role in the development of the project and may include the following as they relate to areas of expertise:

- Provide meaningful and early input to address concerns and impacts.
- Identify issues that could substantially delay or prevent granting of permits/approvals.
- Identify opportunities for collaboration, including participating in coordination meetings and joint field reviews, as appropriate.
- Provide timely compliance with review and comment on preliminary documents to reflect the views and concerns of their respective agencies, alternatives considered and anticipated impacts and mitigation.

Approach To Coordinating Project Delivery Tasks:

The Team will use an Integrated Project Delivery (IPD) approach that integrates staff, systems, team company's structures and professional practices into a process that collaboratively harnesses the talents and insights of all participants to optimize project results, increase value to the owner, to the community, reduce waste, and maximize efficiency through all phases of design, bid, and construction.

The Integrated Project Delivery is assembling a team that is committed to collaborative processes and is capable of working together effectively. In order to accomplish this, Principal project manager will:

- Identify the Team's roles that are most important to the project.
- Consider interests and seek involvement of select additional parties, such as agency official(s), local utility companies, and other stakeholders.
- Define in a mutually understandable fashion the values, goals, interests and objectives of the project to the larger program goals.
- Identify the Team's organizational and business structure best suited to IPD that is consistent with the Team's capacity and constraints. The choice should not be rigidly bound to traditional project delivery methods, but should be flexibly adapted to the project.
- Develop project agreement(s) to define the roles and accountability of the Team members. The project agreements should be synchronized to assure that company's roles and responsibilities are defined identically in all agreements and are consistent with the agreed Team organizational and business models. Key provisions regarding compensation, obligation and risk allocation will be clearly defined

TEC Professional Services Questionnaire

and should encourage open communication and collaboration.

4) Past Performance by person or firm on Parish contracts

Pivotal Engineering has a history of providing coastal engineering, stormwater design, lift station design, facility and building design, wastewater, street, water, and drainage design and construction administration services to many municipalities and state agencies in the region including; The City of New Orleans, The City of Shreveport, Sewerage and Water Board, The City of Kenner, St. Charles Parish, St. John Parish and Jefferson Parish. These services have also been provided to private clients such as Entergy and Waste Management. Pivotal Engineering has in depth understanding of local, state, and federal governmental agencies procedures and regulations. The scope of work on which our staff has worked on includes: water treatment plant improvements, master planning, elevated storage tank designs, sewer treatment plant upgrades, lift stations, build/repair streets, sidewalks, bike paths, drainage systems and utilities. Our engineers have great track records with helping our clients meet compressed deadlines yet delivering the project within budget. Pivotal personnel have heavy construction background capabilities and have several construction inspectors with extensive experience on board.

Our staff has proven excellence in managing projects from cradle to grave while providing value engineering which saved our clients hundreds of thousands of dollars. Our staff was essential in helping the city of New Orleans expediting its recovery post Katrina by handling and completing over 50 critical FEMA funded projects. Our staff has extensive experience in managing multi-million-dollar projects and programs for public infrastructure and CDBG disaster recovery.

The following is a brief list of the team's relevant experience:

- **H&H Modeling and Design of 682-acre Drainage Catchment Basin, City of Shreveport**
- **CADL H&H Modeling and Design of 200-acre Drainage Catchment Area**
- **Coastal Use Permitting for Dredge Activities**
- **Beneficial Use of Dredged Material, Westlake, LA**
- **NASA Solar Station, Michoud, LA**
- **Entergy Corporation Sterlington Generation Facility, Sterlington, LA**
- **RECAP Evaluation for Closure Activities at Permitted Surface Impoundments, Michoud, LA**

5) Location of the principal office

Pivotal Engineering, LLC has an office located in Jefferson Parish at 3925 N. I-10 Service Rd. West, Suite 109R, Metairie, LA 70002. This shall prove to be a valuable asset to Jefferson Parish as our staff can be at the Parish's office at moment's notice to attend critical meetings.

6) Adversarial legal proceedings between the Parish and the person or firm performing professional services, in which the Parish prevailed, or any ongoing adversarial legal proceedings between the

TEC Professional Services Questionnaire

Parish and the person or firm performing professional services, excluding those instances or cases where the person or firm was added as an indispensable party, or where the person or firm participated in or assisted the public entity in prosecution of its claim

Pivotal Engineering, LLC is not, nor has it ever been, involved in any litigation with the Jefferson Parish or any other Parish/State/Federal agencies.

7) Prior successful completion of projects of the type and nature of the engineering services, as defined, for which firm has provided verifiable references

- Nguyen Phan, P.E., Chief Engineer City of New Orleans DPW. (504) 658-8000, nphan@nola.gov
- Khalid L. Saleh, Ph.D., Senior Design Engineer, City Of New Orleans DPW, (504) 658-8208, ksaleh@nola.gov
- Neil Schneider, CCM, P.E. Director of Capital Projects, Jefferson Parish Department of Capital Projects (504) 736-6833, nschneider@jeffparish.net
- Mike Lockwood, Director of Sewerage, Jefferson Parish Department of Sewer (504) 736-6661, mlockwood@jeffparish.net
- Mark Drewes, PE; Director of Public Works, Jefferson parish, Department of Public Works, (504) 736-6783, mdrewes@jeffparish.net
- Angela DeSoto, PE; Director of Engineering; Jefferson Parish, Department of Engineering, (504) 736-6500, adesoto@jeffparish.net
- Myra Alexis-Valentine, Grants Administer, St. John Parish, (985) 652-9569, m.alexisv@stjohn-la.gov
- Jean Todd, Contracting Officer, US Army Corps of Engineers, (901) 828 – 1503, jean.f.todd@usace.army.mil
- Wes Wyche; Director of Public Works; City of Shreveport; (318) 673-6000, Wes.Wyche@shreveportla.gov
- Christopher Racca; Environmental Protection Manager; Waste Management; (225) 637-2385, cracca@wm.com

Quality Assurance / Quality Control Plan

Our management team is comprised of experienced managers and task leaders with proven leadership who can thoughtfully bring together capable team members with exceptional technical skills, and support them with good QA/QC processes. Open lines of communication and weekly internal conference calls will ensure that the project is managed successfully within budget and schedule.

Pivotal maintains a comprehensive program to ensure that our projects bring the most value to our clients and are of high quality. Each Pivotal project has a comprehensive QA/QC plan to make sure our procedures and documentation conforms to our corporate policies and our client's requirements. QA/QC is much more than providing reviews and checking computations. Quality is a mindset that is shared by every member of the Pivotal team. It starts by clearly understanding expectations and making a commitment to meet them every day and with every deliverable. Each project review also includes some elements of internal value engineering. Our senior staff focuses not only on accuracy and completeness, but on value, optimization, simplicity, operations, maintenance, power cost, and constructability.

TEC Professional Services Questionnaire

Our principals and staff have gained this experience not only through many years of providing services to this variety of clients on a very diverse portfolio of projects, but also through focused continuing education. Pivotal Engineering's principals and staff have all been given accolades on their technical competence and knowledge of administering the contract plans and specifications per agency policy and procedure.

Pivotal believes that quality products and services result from having sound business practices, retaining talented staff, and focusing on being responsive to our client's needs. Our clients respect us for our philosophy of "doing the right things for the right reasons."

Quality is integrated into Pivotal's day-to-day business activities through our Quality Management System (QMS). The programs, policies, and business processes that comprise the QMS have four key elements:

- Focus – Management actively promotes quality in our business activities and defines responsibilities for maintaining a quality focus.
- Service – Staff members are trained, available, and committed to providing quality services.
- Delivery – Processes and procedures are in place that promotes quality in the delivery of our products and services.
- Improvement – Continual improvement is achieved through performance measurement and identification of areas for improvement.

Pivotal's senior management demonstrates its commitment to quality through establishing responsibilities for quality at all levels of the company, from company principals to members of management to the project team. Responsibilities are documented in Pivotal's QA/QC Program procedures. These procedures define how Pivotal delivers products and services to our clients.

Experience in creating and working with multi-disciplinary project delivery team

Pivotal Engineering's management team is comprised of experienced managers and task leaders with proven leadership, thoughtfully bringing together capable team members with exceptional technical skills, and supporting them with good QA/QC processes. Open lines of communication and weekly internal conference calls will ensure that the project is managed successfully, within budget and schedule. Pivotal's approach to the assigned project includes integrated and comprehensive engineering services that include facility inventories, development of design criteria, assessment of major engineering components, preparation of specifications, and plans and associated construction cost.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature:  **Print Name:** Avinash Mehta, PE

Title: Principal-In-Charge **Date:** 07/16/2024

Section Two

TEC Form for BFM Corporation

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

As-Needed Parish-Wide

Coastal Engineering Consulting Services

SOQ **24-020** | Resolution No. **144205**

B. Firm Name & Address:



BFM Corporation, LLC

15 Veterans Memorial Boulevard | Kenner LA 70062

C. Name, title, and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Ralph P. Fontcuberta, Jr., PLS, Executive Vice President

504-468-8800 | 504-468-8800 cell | ralph@bfmcorporation.com

Registered Professional Land Surveyor (**Louisiana No. 4329; since 1974**)

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline:

Ralph P. Fontcuberta, Jr., PLS, Executive Vice President

504-468-8800 | 504-468-8800 cell | ralph@bfmcorporation.com

Registered Professional Land Surveyor (**Louisiana No. 4329; since 1974**)

E. Please provide the number of employees whose primary function corresponds with each category:

<u>4</u>	Administrative		Estimators		Specification Writers
	Architects (Licensed)		Geologists		Structural Engineers
	Chemical Engineers	<u>1</u>	Geotechnical Engineers		Graduate Engineers
	Civil Engineers		Interior Designers	<u>2</u>	Project Managers
	Construction Inspectors		Landscape Architects		Clerical (<i>see Administrative</i>)
	Ecologists	<u>1</u>	Land Surveyor (<i>Apprentice</i>)		Grant/Funding Specialist
	Electrical Engineers		Mechanical Engineers		Sanitary Engineers
	Engineer Intern		Environmental Engineers	<u>1</u>	<i>Researcher/Archivist</i>
<u>2</u>	Professional Land Surveyors			<u>3</u>	<i>CADD Technicians</i>
				<u>6</u>	<i>Survey Crew Chief</i>
				<u>6</u>	<i>Survey Crew Instrumentman</i>
				<u>26</u>	TOTAL

F. Is this submittal by a JOINT-VENTURE? Please check: YES _____ NO X

If marked "no", skip to Section I. If marked "yes", complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.

1.
N/A

2.

H. Has this JOINT-VENTURE previously worked together? Please check:

YES _____ NO _____ N/A

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. N/A		
2.		
3.		

J. Please specify the total number of support personnel that may assist in the completion of the Project:

26 (all personnel will be available for assignment to the project)

TEC Professional Services Questionnaire

- K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., résumé) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.**

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Ralph P. Fontcuberta, Jr., PLS

Executive Vice President / Registered Professional Land Surveyor

Project Assignment:

Registered Professional Land Surveyor

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

42 years (Founding Principal of BFM in 1982); Gulf South Engineering and Testing, Inc. | 2017 to present
57 years total (1967) BFM Corporation, LLC | 1982 to present
Surveys, Inc. | 1967 to 1982
The Boeing Company | 1964 to 1967

Education: Degree(s)/Year/Specialization:

2 yr, Building Trade Curriculum, Delgado, New Orleans
2 yr, Mathematics Curriculum, University of New Orleans

Active Registration: Year first registered/discipline:

1974 / Professional Land Surveyor (Louisiana No. 4329)
1974 / Professional Land Surveyor (Mississippi No. 1633)

Other experience and qualifications relevant to the proposed Project:

Ralph P. Fontcuberta, Jr., PLS has provided services on an almost incalculable number of surveying projects throughout southeastern Louisiana in the past half century and has been a registered Professional Land Surveyor (PLS) since 1974. He is thoroughly knowledgeable in all aspects of surveying: topographic, hydrographic, boundary, right-of-way surveying, and all facets thereof. He has provided surveying services for residential, plant, and industrial layout projects, ranging from small private lots & buildings to multi-million-dollar programs, including the New Orleans FEMA Streets/Recovery Roads Program. Since the beginning of his career, his work has entailed computations, drafting, and field work for various industrial, commercial, municipal, and private clients.

Project work has included topographic surveying needed for a wide variety of engineering, architectural, construction, and other related endeavors. This has included projects for numerous branches of virtually every regional city/parish/town government, multiple State agencies (LA Dept. of Natural Resources (LADNR), Coastal Protection & Restoration Administration (CPRA), LA

TEC Professional Services Questionnaire

Other experience and qualifications: **Ralph P. Fontcuberta, Jr., PLS (continued)**

Dept. of Transportation & Development (LADOTD), MS Dept. of Transportation (MDOT), and others), Federal agencies (U.S. Army Corps of Engineers (USACE), Dept. of the Navy, etc.), private/public companies (Entergy, BellSouth, Cox Cable, etc.), and numerous other public/private entities.

Mr. Fontcuberta's surveying experience with Jefferson Parish can be traced back to BFM's inception in 1982, and to 1967 then while working as a surveyor with another firm. He has over half a century of experience with surveying throughout the region and specifically with Jefferson Parish. He has served as the PLS for projects throughout every corner of Jefferson Parish. Relevant project history includes, but is certainly not limited to, the following:

- Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA
- The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA
- Abita River Regional Detention Pond Expansion, St. Tammany Parish, LA
- Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA
- Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA
- Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA
- Marsh Island (Lafreniere Park), Metairie, Jefferson Parish, LA
- Alexis Bay Marsh Creation Project, Venice, Plaquemines Parish, LA
- Bayou Segnette Topographic Survey, Westwego, Jefferson Parish, LA
- Trapp Canal Improvements, Bayou Fatma to Bayou Barataria, Jefferson Parish, LA
- Grand Isle State Park Breakwater Survey for Erosion, Jefferson Parish, LA
- Lower Lafitte Shoreline Stabilization at Bayou Rigolets, Segments AU1 and AU5, Jefferson Parish, LA
- Elmer's Island Surveying Services, Grand Isle, Jefferson Parish, LA
- Grand Isle Jetty Project, Grand Isle, Jefferson Parish, LA
- Fifi Island Restoration Extension, Jefferson Parish, LA
- Hydrographic Survey of the Mississippi River Range Line 1-9, Westwego, Jefferson Parish, LA
- Bayou Segnette Fronting Protection/New Pump Station, Westwego, Jefferson Parish, LA
- Lake Pontchartrain LPV149 - Caernarvon Canal Floodwall Construction Layout Survey, St. Bernard/Plaquemines Parish, LA
- Tchefuncte River Area Surveys, Tchefuncte River, LA
- Multibeam Hydrographic Survey, Pelican Island, Plaquemines Parish, LA
- SLFPA-E Levee Certification Phase 2 Survey - 40 Arpent & Maxent Levees, Orleans & St. Bernard Levee Systems, Orleans Parish, LA
- Forested Ridge Reach B-2, Fort Jackson to Venice, Plaquemines Parish, LA
- Bayou Sale Shoreline Protection Project (TV-20), Terrebonne Parish, LA
- Bayou Henderson, Ascension Parish, LA

TEC Professional Services Questionnaire

Other experience and qualifications: **Ralph P. Fontcuberta, Jr., PLS (continued)**

- LPV 107 Lincoln Beach Levee & Gate, Orleans Parish, LA
- Lac Des Allemands Shoreline Protection & Restorations, St. John the Baptist Parish, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA
- Hydrographic/Reclamation Monitoring at Multiple Sites, Terrebonne Parish, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 4, St. Charles Parish, LA
- Lake Pontchartrain Shoreline Projection and Enhancement Design Survey, St. Charles Parish, LA
- Louisiana DNR 2503-00-40; Bathymetric Surveying for Lake Borgne at Shell Beach (PO-30), LA
- Lincoln Beach Restoration, Orleans Parish, LA
- Goose Bayou Ridge Creation and Shoreline Protection Project, Goose Bayou at Cypress Bayou, LA
- Barataria Bridge, Jonathan Davis Wetland Restoration, LA
- USCG Belmont Ranges, St. James Parish, Gramercy, LA
- Barataria Basin Landbridge Shoreline Protection, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 1, St. Charles Parish, LA
- Walnut Street, Orleans Street, and Oak Park Pond, St. Tammany Parish, LA
- Central Wetlands Unit and 40 Arpent Canal Access & Enhancement Project, St. Bernard Parish, LA
- WBV-MRL 4.1, English Turn Bend to Belle Chasse, Plaquemines Parish, LA
- Plaquemines Parish Coastal Restoration, Plaquemines Parish, LA
- Louisiana DNR 2503-00-40; Violet Canal - South of Chalmette on LA 46, St. Bernard Parish, LA
- Naomi Siphon Outfall Management (BA-03C) and Barataria Bay Waterway East Bank Protection (BA-26), LA
- WBV-MRL 6.1, Parish Line to English Turn Bend, Orleans & Plaquemines Parishes, LA
- USA Right-of-Way Line, Intracoastal Waterway in Belle Chasse, Plaquemines Parish, LA
- Shrimp Factory Alternative Site, SE Louisiana Flood Protection Authority - East, St. Bernard Parish, LA
- Rigolets Shoreline Protection Development, Third District, Orleans Parish, LA
- Deer Island Pass, St. Mary Parish, LA
- Fort Pike (State Historic Site), Slidell, St. Tammany Parish, LA
- Cat Island Restoration Project, Plaquemines Parish, LA
- Bayou Dupre Flood Gate, St. Bernard Parish, LA
- Black Bayou Surveying Services, Lake Charles, Calcasieu Parish, LA
- Bayou St. John Hydrographic Survey, New Orleans, LA
- Port of Manchac Soundings, Lake Pontchartrain, Manchac, Tangipahoa Parish, LA
- Tiger Pass Hydrographic Survey, Venice Boat Harbor Road, Belle Chasse, LA
- Intracoastal Waterway Cross Sections (including Engineers Road), Belle Chasse, Plaquemines Parish, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 2, Lafourche Parish, LA

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Chad M. Poché, P.E.

Executive Vice President / Registered Professional Geotechnical Engineer

Project Assignment:

Engineering Liaison

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

7 years (became partial owner of BFM in 2017);
31 years total (1993)

BFM Corporation, LLC | 2017 to present
Gulf South Engineering and Testing, Inc. | 2011 to present
Ardaman and Associates, Inc. | 2007 to 2011
Soil Testing Engineers, Inc. | 2001 to 2007
Eustis Engineering | 1996 to 2001
Soil Testing Engineers, Inc. | 1993 to 1996

Education: Degree(s)/Year/Specialization:

M.S., 1998, Civil Engineering, University of New Orleans
B.S., 1993, Civil Engineering, Louisiana State University

Active Registration: Year first registered/discipline:

1998, Civil Engineer (Louisiana No. 27667)
2002, Civil Engineer (Mississippi No. 15405)

Other experience and qualifications relevant to the proposed Project:

Chad M. Poché, P.E. is an Executive Vice President with (and partial owner of) BFM Corporation, LLC, and a co-founder of BFM's sister company, Gulf South Engineering and Testing, Inc. He has been a consulting geotechnical engineer for nearly 30 years in South Louisiana, working on traditional and unique geotechnical engineering projects (shallow and deep foundation design, slope stability, pavement design, etc.). Mr. Poché has also provided construction oversight for waste facilities and virtually every type of earthwork related project. He has been the geotechnical engineer of record for thousands of projects throughout his career.

Mr. Poché's experience includes the development of appropriate scopes of work and proposals for a broad range of projects; planning and coordinating analyses; preparing technical reports; foundation and geotechnical engineering design; construction recommendations; Miss. River facility permitting; managing personnel and office operations, and; serving as an Expert Witness. Mr. Poché has logged soil borings; overseen the installation of ground water monitoring wells, piezometers, and inclinometers; overseen and evaluated pile load tests; overseen, performed, and evaluated dynamic pile testing (PDA and PIT); performed CMT field testing and inspection; and performed laboratory testing.

TEC Professional Services Questionnaire

Other experience and qualifications: **Chad M. Poché, P.E. (continued)**

Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA. BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA. BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work. (\$477,340 (fee); 2023)

Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA. BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA. BFM's scope of services included all topographic & hydrographic surveying as directed; magnetometer surveying was utilized to determine the presence of pipelines within the subject survey area. BFM established as client-supplied baseline and Temporary Benchmarks (TBM). Provided cross sections along Bayou Des Allemands and located elements & existing improvements within the designated limits of survey, as well as above- & below-ground utilities. As-built data was also considered. (\$118,873 (fee); 2019)

Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 1, St. Charles Parish, LA. BFM provided topographic and hydrographic surveying services for Segment 1 of the Upper Barataria Basin Risk Reduction (UBRR) Project; this involved the Davis Pond West Guide Levee in St. Charles Parish. (\$19,147 (fee); 2019)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Gary J. Lambert, Jr., PLS

Vice President / Registered Professional Land Surveyor

Project Assignment:

Project Manager/Drafting Supervisor

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

6 years (joined BFM in 2018);
13 years total (2011)

BFM Corporation, LLC | 2018 to present
Riverlands Surveying | 2016 to 2018
Bertucci Contracting | 2011 to 2016

Education: Degree(s)/Year/Specialization:

B.S., 2018, Geomatics, Nicholls State University

B.S., 2014, Construction Management, Louisiana State University

Active Registration: Year first registered/discipline:

2021, Professional Land Surveyor (Louisiana No. 5929)

Other experience and qualifications relevant to the proposed Project:

Gary J. Lambert, Jr., is a registered Professional Land Surveyor in Louisiana and provides Project Management and Drafting Oversight for BFM Corporation. He is the first point of contact for clients on technical matters, scheduling, and deliverables for project work, and conducts meetings with engineering, architectural, and government officials to discuss various project needs. His project work has encompassed all manner of surveying services, from basic home lots to 100+ acre tract boundary surveys.

In the field, Mr. Lambert has provided services as a Survey Crew Chief, using both traditional and robotic surveying methods, since the start of his professional career, and has experience with Leica, Hypack, AutoCAD, AutoCAD 3D, Trimble, and RTK surveying technologies. He further trains employees in the use of an aerial drone, laser scanner, and remote-controlled hydrographic survey boat. This survey experience includes topographic, boundary, ALTA/NSPS, FEMA, and various construction surveying. Mr. Lambert has also conducted hydrographic surveys in the Mississippi River and various other bodies of water throughout the Gulf Coast area.

Mr. Lambert has completed Basic OSHA Training and holds license with the Gulf Coast Safety Council (08SSV, ID429523).

TEC Professional Services Questionnaire

Other experience and qualifications: **Gary J. Lambert, Jr., PLS (continued)**

Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA. BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA. BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA. BFM's scope of services included all topographic & hydrographic surveying as directed; magnetometer surveying was utilized to determine the presence of pipelines within the subject survey area. BFM established as client-supplied baseline and Temporary Benchmarks (TBM). Provided cross sections along Bayou Des Allemands and located elements & existing improvements within the designated limits of survey, as well as above- & below-ground utilities. As-built data was also considered. (\$118,873 (fee); 2019)

Abita River Regional Detention Pond Expansion, St. Tammany Parish, LA. BFM provided topographic and hydrographic surveying services for the project, whose Limits of Survey consisted of Parcel A3-A, a portion of Lambert Investments Minor Subdivision, in St. Tammany Parish. BFM established two temporary benchmarks (TBMs) along Harrison Avenue near the project site, with the vertical datum referenced to NAVD 1988. Surveying services included location of the existing pond, adjoining swales and culverts, and two ditches which exist within the remainder of Parcel A3-A. Spot elevations were taken at 200 ft. intervals on land and 50 ft. within the limits of the pond. Deliverables included detailed indelible prints showing plan & profile views with cross-sections along with digital files. (\$68,400 (fee); 2019)

The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA. BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work. (\$477,340 (fee); 2023)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Christopher Lemley

Field Operations Manager/Survey Crew Chief

Project Assignment:

Field Operations Manager/Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

10 years (joined BFM in 2014);
18 years total (2006)

BFM Corporation, LLC | 2014 to present
G.E.C., Inc. | 2010 to 2014
Krebs, LaSalle, LeMieux Consultants, Inc. | 2006 to 2010

Education: Degree(s)/Year/Specialization:

High School Diploma

Active Registration: Year first registered/discipline:

American Traffic Safety Service Assn. – Traffic Flagger
Louisiana Boater Education - Boating Safety Certificate
Norfolk Southern Roadway Worker Protection Contractor Safety Certificate

Other experience and qualifications relevant to the proposed Project:

Chris Lemley's services as BFM's Field Operations Manager includes overseeing all field work and activity by company personnel. His surveying experience includes over 8 years as a Survey Crew Chief. His survey software experience includes projects involving Trimble, Topcon, Leica, and Hypack, and has maintained and operated GPS, Auto-Level, and Total Station. Notable past project work has included the New Orleans Museum of Art, Jackson Barracks Restoration, US Highway 11, NASA Michoud Cells 3 & 4, the St. Bernard Lot Next Door Program, and multiple Orleans Parish School Recovery projects (including L.B. Landry, George Washington Carver, and Alice M. Harte schools).

Lafitte Area Levee Repair (BA-82) (CPRA 4400007082, Task 8), Jefferson Parish, LA. BFM provided all topographic and hydrographic surveying services as required by the project. This included establishing a baseline parallel to the shoreline, establishing temporary benchmarks, plotting location of improvements, determining pipeline aspects (size, depth, etc.), and taking cross sections, as well as all elements of the hydrographic survey of the waterway. (\$8,924 (fee); 2017)

Lower Lafitte Waterline, Jefferson Parish, LA. BFM provided surveying services associated with the location of a 16 inch plastic waterline in the Barataria Waterway as part of the Lower Lafitte Shoreline Stabilization project. BFM provided stakeout surveying for the project, staking the water

TEC Professional Services Questionnaire

Other experience and qualifications: **Christopher Lemley (continued)**

line every 50 feet (with 4 ft. wooden stakes). Certain areas were very deep and the line was not accurately located in this area. BFM set markers where approximate locations were based on the areas where the line was found. (\$38,205 (fee); 2017)

Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA. BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to establish grade, and located all topographic features that could interfere with the proposed floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work. (\$12,197 (fee); 2015)

Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA. BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

Alexis Bay Marsh Creation Project, Venice, Plaquemines Parish, LA. BFM provided multiple survey services for this marsh creation project, including elevations, locations, establishing control points, and plat preparation. The project, which specifically involved the creation of a terrace field in Alexis Bay near Venice, Louisiana, also included general topographic surveying services of the project's island location. Hydrographic surveying via airboat was a project element. (\$8,625 (fee); 2015)

Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 1, St. Charles Parish, LA. BFM provided topographic and hydrographic surveying services for Segment 1 of the Upper Barataria Basin Risk Reduction (UBRR) Project; this involved the Davis Pond West Guide Levee in St. Charles Parish. (\$19,147 (fee); 2019)

Hydrographic/Reclamation Monitoring at Multiple Sites, Vermilion Parish, LA. BFM provided topographic and hydrographic surveying services for ongoing reclamation monitoring at multiple sites, including Blue Hammock, Bay Goreau, Bay Goreau (West), and Hellhole Bay. GPS surveying services included elevations based on NAVD 1988 vertical (Geoid 12A epoch 2006.85), which utilized land-based laser scanning. Spot elevations were also provided. For the hydrographic surveying elements, BFM's dual frequency Z-boat took soundings in the same area (to show depth of silt and hard pan with a minimum water depth of 18 inches to show dual frequency); as the soundings got closer to the water's edge the surface of the silt was utilized to tie into the bank. Further, BFM plotted location of improvements within the designated limits of the survey. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$35,500 (fee); 2016)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

John Philip Thayer

Procurement Director (Proposals & Project Management Support)

Project Assignment:

Project Management Support

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

16 years (joined BFM in 2008);
17 years total (2007)

BFM Corporation, LLC | 2008 to present
Delle Land Surveying | 2007 to 2008

Education: Degree(s)/Year/Specialization:

Certificate, 2015, Land Surveying Services

B.S., 2007, Physical Education, Trevecca Nazarene University

Active Registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Phil Thayer serves as BFM's Procurement Director, providing proposal preparation and Project Management Support, having considerable experience in field surveying services, including ALTA/as-built surveying, construction layout, boundary, topographic, cross-sections, GPS use, and numerous other surveying types.

Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA. BFM's surveying services on the project included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files. (\$23,220 (fee); 2017)

Lac Des Allemands Shoreline Restorations, St. John the Baptist Parish, LA. BFM provided surveying services for the project, which extended from Vacherie Canal southeast along the shoreline of Lac Des Allemands to Pointe Aux Herbes, a distance of approximately 11,000 feet. Surveying services included the research & review of any existing survey data and establishing a project baseline along the existing shoreline. Cross-sections extended from the baseline, 100 ft. in shore to 500 ft. off shore, every 300 ft. and perpendicular along the baseline. Hydrographic surveying included the mouth of the Vacherie Canal and mouth of Oil Well Canal, noting any significant features. Geotechnical borings were located (for plan identification). BFM further

TEC Professional Services Questionnaire

Other experience and qualifications: **John Philip Thayer (continued)**

established control (for use by contractor during construction), and prepared drawings of the survey results to include a plan view of the survey and a profile view of each transect. (\$38,399 (fee); 2010)

Lake Pontchartrain Shoreline Projection and Enhancement Design Survey, St. Charles Parish, LA. For the project, BFM provided topographic and hydrographic survey in the Labranche Wetlands area on the south shore of Lake Pontchartrain. The project begins at the easterly end of the previously constructed shoreline protection project east to the St. Charles-Jefferson Parish line. BFM also surveyed canals, sloughs and bayous that emptied into Lake Pontchartrain a minimum of 100 feet from the point of entry into the lake. Controls were established following the shoreline of Lake Pontchartrain for the entire project length. All sections taken were stationed along this baseline, which was based on the Louisiana State Plane Coordinate System, Lambert Grid, NAD 1983 (2007) as established by GPS observations. Elevations were established on each control point (based on NAVD 1988) and transects along the survey baseline taken at 300 ft. intervals (shorter intervals where necessary to define the shoreline). Transects extended 100 ft. inland to 500 ft. off the shoreline, with additional shots taken in-between to define it accurately. BFM further located existing weirs, dams or levees constructed across canals, sloughs or bayous, as well as any soil boring sites in the project area. (\$32,295 (fee); 2010)

Lower Lafitte Shoreline Stabilization at Bayou Rigolets, Segments AU1 and AU5, Jefferson Parish, LA. BFM provided topographic and hydrographic surveying services for the project. (\$33,370 (fee); 2010)

Fifi Island Restoration Extension, Jefferson Parish, LA. BFM provided topographic and hydrographic surveying services for the project. The scope of services involved mapping of property lines and existing servitudes for the railroad, cemetery, private residences, and a commercial establishment (Dive Shop) north of Airline Boulevard. The project also included preparation of a servitude document across the railroad property. (\$10,210 (fee); 2011)

Port of Manchac Soundings, Lake Pontchartrain, Manchac, Tangipahoa Parish, LA. BFM provided surveying services for the project involving a centerline of channel soundings from Lake Pontchartrain to the Port of Manchac Harbor on North Pass. (\$3,300 (fee); 2010)

Alexis Bay Marsh Creation Project, Venice, Plaquemines Parish, LA. BFM provided multiple survey services for this marsh creation project, including elevations, locations, establishing control points, and plat preparation. The project, which specifically involved the creation of a terrace field in Alexis Bay near Venice, Louisiana, also included general topographic surveying services of the project's island location. Hydrographic surveying via airboat was a project element. (\$8,625 (fee); 2015)

Goose Bayou Ridge Creation and Shoreline Protection Project, Goose Bayou at Cypress Bayou, LA. BFM located the western shoreline of Goose Bayou from the Pen in Lafitte to its intersection with Cypress Bayou. Surveying services included cross sections every 300 feet extending 100 feet into the marsh and sounding out the centerline of Goose Bayou. (\$25,325 (fee); 2009)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Dawn Hoffman Researcher/Archivist
Project Assignment:
Researcher/Archivist
Name of Firm with which associated:
 BFM CORPORATION, LLC Professional Land & Hydrographic Surveying
Years' experience with this Firm:
<div style="display: flex; justify-content: space-between;"> <div> 15 years (joined BFM in 2009); 27 years total (1997) </div> <div style="text-align: right;"> <i>BFM Corporation, LLC 2009 to present</i> <i>Fluor Corporation 2007 to 2009</i> <i>Geographic Computer Technologies, LLC 2000 to 2007</i> </div> </div>
Education: Degree(s)/Year/Specialization:
A.D., 1999, Computer-Aided Drafting, Southeast College of Technology Certificate, 2003, Introduction to ArcGIS, Louisiana State University
Active Registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
<p>Dawn Hoffman serves as BFM's primary researcher and has more than 25 years of experience in this field. She is extremely knowledgeable with researching in various parishes and cities.</p> <p>Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA. BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)</p> <p>Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA. BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to</p>

TEC Professional Services Questionnaire

Other experience and qualifications: **Dawn Hoffman (continued)**

establish grade, and located all topographic features that could interfere with the proposed floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work. (\$12,197 (fee); 2015)

Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA. BFM's surveying services on the project included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files. (\$23,220 (fee); 2017)

Marsh Island (Lafreniere Park), Metairie, Jefferson Parish, LA. BFM Corporation provided bathymetric and topographic surveying services for the Marsh Island project at Lafreniere Park in Jefferson Parish, Louisiana. The survey encompassed the island and surrounding waters up to and including the sidewalk. Cross sections of the island and surrounding waters were cut after the topographic and hydrographic surveying was completed. (\$9,568 (fee); 2016)

SLFPA-E Levee Certification Phase 2 Survey - 40 Arpent & Maxent Levees, Orleans & St. Bernard Levee Systems, Orleans Parish, LA. BFM surveyed the centerline of the 40 Arpent "Back" Levee (in excess of 124,000 lf on a 100 ft grid). Control points were established utilizing RTK GPS. In addition, each pump station was surveyed and all grade breaks/roads were obtained along the centerline of the levee. The old shrimp building at Violet Canal was also located as part of the survey. Surveys included utility locations (based on field evidence, investigation, and available utility records) as well as foundation of above-ground utility poles, wet wells, and pipeline crossings. Bathymetry information was incorporated into cross-section point file and combined with ground survey; this information was further converted to the same elevations as the levee profile work. Additional cross sections were surveyed to support detailed geotechnical analysis; locations were coordinated with the geotechnical engineer of record for the project. These cross sections extended 100 ft from the toe of the levee in both directions and included bathymetry of the lake, wetland, or canal, depending on location, and extended until depth of the body was determined. (\$166,500 (fee); 2013)

Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA. BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Anthony Watson

CADD Technician (AutoCADD Drafting Services)

Project Assignment:

CADD Technician (AutoCADD Drafting Services)

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

13 years (joined BFM in 2011);
33 years total (1991)

BFM Corporation, LLC | 2011 to present
Krebs LaSalle Lemieux / GEC | 2008 to 2011
Doug Connally and Associates Land Surveying (Dallas, TX) | 1995-2008
Electrician | 1991 to 1995
City of Plano TX (Part-Time Drafting Services) | 1991

Education: Degree(s)/Year/Specialization:

Coursework - CAD, Avatech Solutions, Los Colinas, TX

Active Registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Anthony Watson has experience as a draftsman/survey technician, having started his career as an intern with the Surveying Department of the City of Plano, Texas. His experience through the years includes manual and computer-aided drafting for a wide range of projects, ranging from small lot surveys to subdivisions to municipal treatment and private industrial plants. He has experience in all facets of surveying (boundary, topographic, ALTA/ACSM, plan & profile, etc.) in both drafting and field environments.

Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA. BFM's surveying services on the project included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files. (\$23,220 (fee); 2017)

Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA. BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to establish grade, and located all topographic features that could interfere with the proposed

TEC Professional Services Questionnaire

Other experience and qualifications: **Anthony Watson (continued)**

floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work. (\$12,197 (fee); 2015)

Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA. BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA. BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work. (\$477,340 (fee); 2023)

Bayou Segnette Fronting Protection/New Pump Station, Westwego, Jefferson Parish, LA. BFM's surveying services included establishment of vertical control for a new pump station. Total Station services were utilized for the project. (\$3,435 (fee); 2012)

Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA. BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA. BFM's scope of services included all topographic & hydrographic surveying as directed; magnetometer surveying was utilized to determine the presence of pipelines within the subject survey area. BFM established as client-supplied baseline and Temporary Benchmarks (TBM). Provided cross sections along Bayou Des Allemands and located elements & existing improvements within the designated limits of survey, as well as above- & below-ground utilities. As-built data was also considered. (\$118,873 (fee); 2019)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Curtis "Jay" Barrios
Survey Crew Chief

Project Assignment:

Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

34 years (joined BFM in 1990);
39 years total (1985)

BFM Corporation, LLC | 1990 to present
Benson Mercedes Benz | 1989 to 1990
SECO Electric | 1987
Frishhertz Electric | 1986 to 1987
Plain Construction | 1985 to 1986

Education: Degree(s)/Year/Specialization:

High School Diploma

Active Registration: Year first registered/discipline:

American Traffic Safety Service Assn. – Traffic Flagger
Basic OSHA Training Class Completion
Transportation Work Identification Card (TWIC)

Other experience and qualifications relevant to the proposed Project:

Jay Barrios' surveying experience includes boundary, hydrographic, and topographic. He has been the Survey Crew Chief for thousands of projects and is one of the more experienced surveyors in the area. Further, Mr. Barrios has been involved on major transmission projects for Entergy and South Central Bell (AT&T).

Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA. BFM's surveying services on the project included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files. (\$23,220 (fee); 2017)

Lake Pontchartrain Shoreline Projection and Enhancement Design Survey, St. Charles Parish, LA. For the project, BFM provided topographic and hydrographic survey in the Labranche Wetlands area on the south shore of Lake Pontchartrain. The project begins at the easterly end of the previously constructed shoreline protection project east to the St. Charles-Jefferson Parish line. BFM also surveyed canals, sloughs and bayous that emptied into Lake Pontchartrain a minimum of

TEC Professional Services Questionnaire

Other experience and qualifications: **Curtis "Jay" Barrios (continued)**

100 feet from the point of entry into the lake. Controls were established following the shoreline of Lake Pontchartrain for the entire project length. All sections taken were stationed along this baseline, which was based on the Louisiana State Plane Coordinate System, Lambert Grid, NAD 1983 (2007) as established by GPS observations. Elevations were established on each control point (based on NAVD 1988) and transects along the survey baseline taken at 300 ft. intervals (shorter intervals where necessary to define the shoreline). Transects extended 100 ft. inland to 500 ft. off the shoreline, with additional shots taken in-between to define it accurately. BFM further located existing weirs, dams or levees constructed across canals, sloughs or bayous, as well as any soil boring sites in the project area. (\$32,295 (fee); 2010)

Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA. BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to establish grade, and located all topographic features that could interfere with the proposed floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work. (\$12,197 (fee); 2015)

Fifi Island Restoration Extension, Jefferson Parish, LA. BFM provided topographic and hydrographic surveying services for the project. The scope of services involved mapping of property lines and existing servitudes for the railroad, cemetery, private residences, and a commercial establishment (Dive Shop) north of Airline Boulevard. The project also included preparation of a servitude document across the railroad property. (\$10,210 (fee); 2011)

Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA. BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA. BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work. (\$477,340 (fee); 2023)

TEC Professional Services Questionnaire

- L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this project. Please include and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

PROJECT NO. 1

Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:
Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, Louisiana APTIM 2424 Edenborn Avenue Suite 450 Metairie LA 70001 Gene S. Gillen, P.E., 504-832-4881 info@aptim.com	BFM provided topographic and hydrographic surveying; scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; also established a baseline along the centerline of the existing earthen levee. Set vertical control TBMs and plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located utilities, existing wall, center of pumps, and discharge pipes at the existing pump station. Existing improvements (sheds, piers, buildings) and trees were included in general location surveying.
Completion Date (Actual or estimated:)	Estimated Cost:
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; text-align: center;">Entire Project:</div> <div style="width: 45%; text-align: center;">Work for which Firm was Responsible:</div> </div>
June 2018	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; text-align: center;">N/A</div> <div style="width: 45%; text-align: center;">\$150,000 (fee)</div> </div>

PROJECT NO. 2

Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:
Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, Louisiana Greenup Industries, LLC 2200 Veterans Memorial Blvd Ste 114 Kenner LA 70062 Rodney Greenup, Jr., 225-283-4843 rodney@greenupind.com	BFM's scope of services included all topographic & hydrographic surveying as directed; magnetometer surveying was utilized to determine the presence of pipelines within the subject survey area. BFM established as client-supplied baseline and Temporary Benchmarks (TBM). Provided cross sections along Bayou Des Allemands and located elements & existing improvements within the designated limits of survey, as well as above- & below-ground utilities. As-built data was also considered.
Completion Date (Actual or estimated:)	Estimated Cost:
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; text-align: center;">Entire Project:</div> <div style="width: 45%; text-align: center;">Work for which Firm was Responsible:</div> </div>
July 2019	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; text-align: center;">N/A</div> <div style="width: 45%; text-align: center;">\$118,873 (fee)</div> </div>

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, Louisiana Burk-Kleinpeter, Inc. 4176 Canal Street New Orleans LA 70119 David Boyd, P.E., 504-483-6271 dboyd@bkusa.com	BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
October 2023	N/A	\$477,340 (fee)

PROJECT NO. 4		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Abita River Regional Detention Pond Expansion, St. Tammany Parish, Louisiana CSRS Inc. 6767 Perkins Road, Suite 200 Baton Rouge LA 70808 Scott Hoffeld, 225-769-0546 scott.hoffeld@csrsinc.com	BFM provided topographic and hydrographic surveying for the project, whose Limits of Survey consisted of Parcel A3-A, a portion of Lambert Investments Minor Subdivision, in St. Tammany Parish. BFM established two temporary benchmarks (TBMs) along Harrison Avenue near the project site, with the vertical datum referenced to NAVD 1988. Surveying services included location of the existing pond, adjoining swales and culverts, and two ditches which exist within the remainder of Parcel A3-A. Spot elevations were taken at 200 ft. intervals on land and 50 ft. within the limits of the pond. Deliverables included detailed indelible prints showing plan & profile views with cross-sections along with digital files.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
July 2019	N/A	\$68,400 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, Louisiana Volkert, Inc. 7967 Office Park Blvd 2nd Floor Baton Rouge LA 70809 Matt Salmon, P.E., 214-478-4754 matt.salmon@volkert.com	BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2022	N/A	\$63,800 (fee)

PROJECT NO. 6		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, Louisiana BCG Engineering & Consulting, Inc. 9619 Interline Avenue, Suite A Baton Rouge LA 70809 David T. Dodgen, 225-924-3116	BFM's surveying services on the project included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2017	N/A	\$23,220 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, Louisiana Brown Cunningham Gannuch 3012 26th Street Metairie LA 70002 Ann L. Springston, P.E., 504-454-3866 aspringston@ardurragroup.com	BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to establish grade, and located all topographic features that could interfere with the proposed floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
April 2015	N/A	\$12,197 (fee)

PROJECT NO. 8		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Marsh Island (Lafreniere Park), Metairie, Jefferson Parish, Louisiana Mathes Brierre Architects 201 St. Charles Avenue, Suite 4100 New Orleans LA 70170-4100 Scott Evans, AIA, 504-586-9303 talfortish@mathesbrierre.com	BFM Corporation provided bathymetric and topographic surveying services for the Marsh Island project at Lafreniere Park in Jefferson Parish, Louisiana. The survey encompassed the island and surrounding waters up to and including the sidewalk. Cross sections of the island and surrounding waters were cut after the topographic and hydrographic surveying was completed.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
February 2016	N/A	\$9,568 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Alexis Bay Marsh Creation Project, Venice, Plaquemines Parish, Louisiana Manchac Consulting Group, Inc. 2137-A Quail Run Drive, Suite A Baton Rouge LA 70808 Daniel Duhon, 225-448-3972	BFM provided multiple survey services for this marsh creation project, including elevations, locations, establishing control points, and plat preparation. The project, which specifically involved the creation of a terrace field in Alexis Bay near Venice, Louisiana, also included general topographic surveying services of the project's island location. Hydrographic surveying via airboat was a project element.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
February 2015	N/A	\$8,625 (fee)

PROJECT NO. 10		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Lower Lafitte Waterline Stakeout, Jefferson Parish, Louisiana CB&I 2424 Edenborn Avenue Suite 450 Metairie LA 70001 Gene S. Gillen, P.E., 504-832-4881 gene.gillen@cbi.com	BFM provided surveying services associated with the location of a 16 inch plastic waterline in the Barataria Waterway as part of the Lower Lafitte Shoreline Stabilization project. BFM provided stakeout surveying for the project, staking the water line every 50 feet (with 4 ft. wooden stakes). Certain areas were very deep and the line was not accurately located in this area. BFM set markers where approximate locations were based on the areas where the line was found.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
January 2017	N/A	\$38,205 (fee)

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1.	<div>BFM Corporation is not currently, nor has it previously been involved, in litigation with Jefferson Parish.</div>	
2.		
3.		
4.		

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

CRITERIA 1 | PROFESSIONAL TRAINING AND EXPERIENCE

Established in 1982, **BFM Corporation, LLC, Professional Land & Hydrographic Surveying**, provides services to public & private concerns throughout Louisiana and the Gulf South. For over 40 years, BFM has provided surveying services covering all facets of engineering, construction, and forensics; topographic, and hydrographic, as well as drone-based surveying and high-definition laser scanning.

BFM Corporation is a majority Woman-Owned Business Enterprise (WBE) as well as a Hudson Initiative certified Small & Emerging Business and Small Entrepreneurship in Louisiana.

Our capabilities include the following and more:

- Topographic Surveying
- Drone Surveying
- Photogrammic & LiDAR and 3D Laser Scanning
- Bathymetric / Hydrographic Surveys
- Property, Boundary, and Right-of-Way Surveys
- Maps, Cross-Sections, & Data Sets; Benchmarks

TEC Professional Services Questionnaire

N. continued.

- Construction-Related Surveying and Builder's Package Surveys
- American Land Title Association (ALTA) Surveys

BFM's project work routinely involves **extensive records and related research** as an element of successful completion, as well as coordination with the client, agency or department. BFM has the personnel to make sure this is done correctly and expeditiously.

Our **Survey Field Crews** are equipped with Leica Viva and Leica Captivate Data Collectors, as well as Leica GPS Smart Antennas. Each GPS unit is linked to the Leica SmartNet Network, giving each crew the ability for Real Time Kinematic Positioning (RTK), derived from the Global Navigation Satellite System (GNSS). Furthermore, each crew is outfitted with Leica TS series robotic total stations, simplifying and expediting projects. BFM can also use in-house drones and 3D scanners to further analyze sites and projects. BFM's crews are trained to use this equipment to its full potential to maximize accuracy and efficiency in the field.

BFM offers **Drone Surveying Services**, featuring a DJI Matrice 600 Pro drone outfitted with a Sony A7R3 42-megapixel camera, Pixhawk Triggering System, VMAP PPK system, and an A3 Pro Flight Controller. It can capture 50 acres of land allowing BFM to quickly & accurately capture data and facilitates quicker field work to produce highly accurate and precise surveying information. Deliverables feature Clean Point Cloud, 3D Mesh, Orthomosaic, and AutoCAD DWG Topographic.

BFM's **3D modeling capabilities** allow us to process & model for any design purpose. High-definition scanner data is processed using software from Leica and Autodesk. BFM is working on non-traditional survey deliverables, including virtual tours, live walkthroughs, detailed pipe rack modeling, and modeling for use with Autodesk Revit Architecture.

When needed, BFM provides **bathymetric surveying** to handle **any hydrographic surveying tasks**. For large rivers and bodies of water, we are equipped with Teledyne Odom Hydro Solutions' Hydro Trac Single Beam Echo Sounder. For smaller bodies of water, BFM uses an SL20 Remote Controlled Boat equipped with CEE Scope Dual Channel Echo Sounder. We use Hypack Software to process collected data. Further, BFM can execute multi-beam scans, side scans and magnetometer surveys upon request.

Please refer to our projects included in Item L and in our personnel listings in Item K for specific type project examples and an overview of our surveying experience with this project type.

CRITERIA 2 | SIZE OF FIRM

As noted, BFM has the manpower and equipment to execute any surveying task within the reasonable time set forth by the contract or project engineer. BFM has no issue with meeting the project deadlines set forth by our clients, both municipal and private. It is our continual goal to keep this reputation solid. Further, we establish base costs and fees for our services, and work with our clients to meet all project budgets.

TEC Professional Services Questionnaire

N. continued.

As noted in **item E** of this form, BFM currently has a **full-time staff of two dozen people**, including **two Registered Professional Land Surveyors, Survey Field Crew Personnel, and AutoCAD drafting personnel**, as well as **complete administrative and support staff**.

CRITERIA 3 | CAPACITY FOR TIMELY COMPLETION

BFM has the manpower and equipment to execute any surveying task within the reasonable time set forth by a contract or project engineer. It is our goal to keep this reputation solid. We establish base costs and fees for our services, and work with our clients to meet all project budgets. Our workload and scheduling, and proximity to the project site, will allow for quick assignment of personnel to any directed project.

BFM Corporation's **Ralph P. Fontcuberta, Jr., PLS**, Executive Vice President, is a **Louisiana-Registered Professional Land Surveyor (since 1974)** and meets or exceeds any minimum requirements for any surveying project. He has been **providing surveying services in Louisiana for over 50 years** and brings an almost incalculable wealth of experience in the region to any project, especially in Southeast Louisiana.

Chad M. Poché, P.E., Executive Vice President, brings **more than 25 years of experience** to assist in completing projects on time and within budget. He has been a consulting geotechnical engineer for more than 20 years in South Louisiana and has been the geotechnical engineer of record for thousands of projects.

Gary J. Lambert, Jr., PLS, Vice President is a **registered Professional Land Surveyor** and provides Project Management & Drafting Oversight and is the first point of contact for clients on technical matters. He meets with engineering, architectural, and government officials to discuss various project needs.

Our personnel included **multiple survey crews** and a **fully-staffed drafting department** to handle any project needs; they are thoroughly trained and extensively familiar with the region and needs of various types of surveying projects.

CRITERIA 4 | PAST PERFORMANCE ON PARISH CONTRACTS

BFM Corporation has provided **surveying services in Jefferson Parish since 1982**, both **directly to Parish agencies and as a consultant to firms serving the Parish**. The firm has executed many hundreds of projects in the Parish, including both direct Parish projects and State agency projects (CPRA, Louisiana DOTD, etc.), not to mention the scores of surveying projects for private individuals and industry.

As noted, Mr. Fontcuberta has **over half a century of professional land surveying experience**, including over 40 years with BFM. **He has provided professional surveying services for thousands of projects for and throughout Jefferson Parish.**

TEC Professional Services Questionnaire

N. continued.

CRITERIA 5 | LOCATION OF THE PRINCIPAL OFFICE

BFM has called Jefferson Parish home office location since the firm's inception in 1982; our principal office is located in Jefferson Parish at 15 Veterans Memorial Boulevard in Kenner.

CRITERIA 6 | LEGAL STATEMENT

BFM Corporation is **not involved in litigation with Jefferson Parish** nor with any of our clients, as is noted in Item M of this form.

CRITERIA 7 | PRIOR SUCCESSFUL COMPLETION OF PROJECTS

For over 40 years, BFM Corporation has completed thousands of projects throughout Jefferson Parish and Southeast Louisiana, both to municipal and various private clients, similar to the project at hand, not to mention other drainage projects in a wide range of sizes, from small lot to Parish-wide endeavors. **Multiple examples of this work are included throughout this form in both the Personnel Résumés section (Item K) and Representative Project Work (Item L).** Further, BFM has worked with virtually every municipality in the region. We enjoy a high repeat-business rate with all our clients. We offer the following specific references for contact:

Mark R. Drewes, P.E., Director, Jefferson Parish Public Works Department
(504-736-6783 | JPPW@jeffparish.net)

Neil Schneider, CCM, P.E., Director, Capital Projects, Jefferson Parish Public Works Dept.
(504-736-6783 | JPPW@jeffparish.net)

José A. Gonzales, CAO, City of Kenner
(504-468-4090 | jgonzalez@kenner.la.us)

Angela DeSoto, P.E., Director of Engineering, Jefferson Parish
(504-736-6511 | ADeSoto@jeffparish.net)

Sid Trouard, P.E., Program Manager, Jefferson Parish Sewerage Capital Improvement Program
(504-736-6386 | STrouard@jeffparish.net)

Ben Lapine, Acting Director, Department of Drainage, Jefferson Parish
(504-736-6661 | JPSewerage@jeffparish.net)

Our professional work history is exemplary. We strive to provide on-time and technically thorough project deliverables at the budget set by our clients.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature: _____

Print Name: Chad M. Poché, P.E.

Title: Executive Vice President

Date: June 25, 2024

Section Three

TEC Form for Gulf South Engineering & Testing Inc.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

As-Needed Parish-Wide

Coastal Engineering Consulting Services

SOQ **24-020** | Resolution No. **144205**

B. Firm Name & Address:



Gulf South Engineering and Testing, Inc.

15 Veterans Memorial Boulevard | Kenner LA 70062

C. Name, title, and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Chad M. Poché, P.E., Executive Vice President

504-305-4401 | 504-460-5239 cell | cpoche@gulfsoutheng.com

Registered Professional Civil Engineer (Louisiana No. 27667; since 1998)

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline:

Chad M. Poché, P.E., Executive Vice President

504-305-4401 | 504-460-5239 cell | cpoche@gulfsoutheng.com

Registered Professional Civil Engineer (Louisiana No. 27667; since 1998)

E. Please provide the number of employees whose primary function corresponds with each category:

<u>7</u>	Administrative	<u> </u>	Estimators	<u> </u>	Specification Writers
<u> </u>	Architects (Licensed)	<u> </u>	Geologists	<u> </u>	Structural Engineers
<u> </u>	Chemical Engineers	<u>2</u>	Geotechnical Engineers	<u> </u>	Graduate Engineers
<u> </u>	Civil Engineers	<u> </u>	Interior Designers	<u>1</u>	Project Managers
<u>10</u>	Construction Inspectors	<u> </u>	Landscape Architects	<u> </u>	Clerical (<i>see Administrative</i>)
<u> </u>	Ecologists	<u> </u>	Land Surveyor (<i>Apprentice</i>)	<u> </u>	Grant/Funding Specialist
<u> </u>	Electrical Engineers	<u> </u>	Mechanical Engineers	<u> </u>	Sanitary Engineers
<u> </u>	Engineer Intern	<u> </u>	Environmental Engineers	<u>1</u>	CMT Supervisor
<u>1</u>	Professional Land Surveyors	<u> </u>		<u>1</u>	Construction Svcs Manager
				<u>4</u>	Laboratory Personnel
				<u>3</u>	Soil Boring Personnel
				<u>30</u>	TOTAL

F. Is this submittal by a JOINT-VENTURE? Please check: YES NO X

If marked "no", skip to Section I. If marked "yes", complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.		
1. N/A		
2.		
H. Has this JOINT-VENTURE previously worked together? Please check: YES _____ NO _____ N/A		
I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.		
Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. N/A		
2.		
3.		
J. Please specify the total number of support personnel that may assist in the completion of the Project: 30 (all personnel will be available for assignment to the project)		

TEC Professional Services Questionnaire

- K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., résumé) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.**

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Chad M. Poché, P.E.

Executive Vice President / Registered Professional Geotechnical Engineer

Project Assignment:

Geotechnical Engineer / Principal In Charge

Name of Firm with which associated:



ENGINEERING AND TESTING, INC.
Geotechnical & Materials Consultants

Years' experience with this Firm:

13 years (founded Gulf South in 2011);
31 years total (1993)

BFM Corporation, LLC | 2017 to present
Gulf South Engineering and Testing, Inc. | 2011 to present
Ardaman and Associates, Inc. | 2007 to 2011
Soil Testing Engineers, Inc. | 2001 to 2007
Eustis Engineering | 1996 to 2001
Soil Testing Engineers, Inc. | 1993 to 1996

Education: Degree(s)/Year/Specialization:

M.S., 1998, Civil Engineering, University of New Orleans
B.S., 1993, Civil Engineering, Louisiana State University

Active Registration: Year first registered/discipline:

1998, Civil Engineer (Louisiana No. 27667)
2002, Civil Engineer (Mississippi No. 15405)

Other experience and qualifications relevant to the proposed Project:

Chad M. Poché, P.E., is Executive Vice President, co-founder, and a Principal in Gulf South. He has been a consulting geotechnical engineer for nearly 30 years in South Louisiana, working on traditional and unique geotechnical engineering projects (shallow and deep foundation design, slope stability, pavement design, etc.). Mr. Poché has also provided construction oversight for virtually every type of earthwork related project. He has been the geotechnical engineer of record for thousands of projects throughout his career.

Mr. Poché's experience includes the development of appropriate scopes of work and proposals for a broad range of projects; planning and coordinating analyses; preparing technical reports; foundation and geotechnical engineering design; construction recommendations; Miss. River facility permitting; managing personnel and office operations and serving as an Expert Witness.

TEC Professional Services Questionnaire

Other experience and qualifications: **Chad M. Poché, P.E. (continued)**

Mr. Poché has logged soil borings; overseen the installation of ground water monitoring wells, piezometers, and inclinometers; overseen and evaluated pile load tests; overseen, performed, and evaluated dynamic pile testing (PDA and PIT); performed CMT field testing and inspection; and performed laboratory testing.

Marsh Island Restoration Project, Lafreniere Park, Metairie, Jefferson Parish, LA. Geotechnical investigation for construction of a new bulkhead wall around Marsh Island. Gulf South's scope includes drilling two soil borings each to a depth of 30 feet on the island, lab testing, and geotechnical engineering analyses including sheetpile and/or retaining wall design parameters, earth pressures, and general construction procedures and recommendations. (\$5,000 (fee); 2017)

Tchefuncte Marsh Shoreline Protection Project: New Borrow Fill Area, Lake Pontchartrain, St. Tammany Parish, LA. Geotechnical engineering services for shoreline protection along the Lake Pontchartrain coastline by construction of a rock dike (approx. 15,000 lf) and marsh fill area located east of the mouth of the Tchefuncte River in St. Tammany Parish, LA. Scope includes drilling 14 borings within the lake, each to a depth of 40 feet below the water surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$90,000 (fee); 2021)


Northshore Living Shoreline Protection, Lake Pontchartrain, St. Tammany Parish, LA. Geotechnical engineering services for shore protection along the northshore of Lake Pontchartrain coastline in two areas by constructing rock dikes in St. Tammany Parish, LA. Gulf South's scope includes drilling 16 borings each to a depth of 30 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$65,000 (fee); 2023)

Tchefuncte Marsh Shoreline Protection - New Rock Dikes, Lake Pontchartrain, St. Tammany Parish, LA. Geotechnical engineering services for the shore protection along Lake Pontchartrain coastline by constructing a rock dike at Tchefuncte Marsh in St. Tammany Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (18 at 30 ft) in Lake Pontchartrain, laboratory testing (including consolidation tests), engineering analyses (bearing values, settlement, slope stability, construction procedures & recommendations). The project utilized shallow-draft barge equipment. (\$65,000 (fee); 2020)

Proposed Estuary Mitigation Bank (EMB) GIWW - Deadend Canal, Vendome Canal, Hockey Stick Canal, Crown Point, Jefferson Parish, LA. Geotechnical investigation for construction of a new wetland restoration project near Crown Point, LA. Gulf South's scope includes drilling nine soil borings to depths of 15 and 40 feet in water and marsh, lab testing (including settlement column test), and geotechnical engineering analysis including estimates of settlement, time rate of settlement, borrow/fill ratios, and general construction recommendations. (\$26,500 (fee); 2016)

Engineering Analysis Review (EAR) - Lafitte Tidal Protection Project (Phase I), Lafitte, Jefferson Parish, LA. Engineering analysis review of alternative pile type/size recommendations (provided by Client) for drainage structure site in Jefferson Parish, near Lafitte, LA. Gulf South's scope includes engineering analysis consisting of LPILE analysis and general construction recommendations. (\$5,000 (fee); 2016)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Bryson S. Beard, P.E., ACI Associate Geotechnical Engineer/Field Engineer	
Project Assignment:	
Associate Geotechnical Engineer/Field Engineer	
Name of Firm with which associated:	
<div style="display: flex; align-items: center;">  <div> ENGINEERING AND TESTING, INC. Geotechnical & Materials Consultants </div> </div>	
Years' experience with this Firm:	
2 years (joined Gulf South in 2022); 3 years total (2021)	<i>Gulf South Engineering and Testing, Inc. 2022 to present</i> <i>TetraTech, Inc. 2021 to 2022</i>
Education: Degree(s)/Year/Specialization:	
B.S., Geological Engineering (2021; University of Mississippi)	
Active Registration: Year first registered/discipline:	
Louisiana P.E. License Passed October 2023 Georgia, Engineering Intern (No. EIT029180, 2022)	
Other experience and qualifications relevant to the proposed Project:	
<p>Bryson S. Beard, P.E., is an Associate Geotechnical Engineer/Field Engineer who serves as a Project Manager. He has performed geotechnical engineering analyses consisting of shallow and deep foundations, slope stability, TRS and sheetpile wall design, settlement, pavement design, etc., and has prepared engineering reports. Mr. Beard's experience in the field includes surface and subsurface soil sampling, water sampling, and soil classification. His work experience further includes core logging and oversight of groundwater monitoring well installations, piezometers, and inclinometers. He has been responsible for the preparation of reports and Facility Response Plans. He is experienced with laboratory sample preparation and testing as well as air sampling and soil gas sampling.</p> <p>Mr. Bryson recently passed his Louisiana Professional Engineering test and will be a noted P.E. for the State of Louisiana once he fulfills the apprenticeship requirements set forth by LAPELS.</p> <p>Northshore Living Shoreline Protection, Lake Pontchartrain, St. Tammany Parish, LA. Geotechnical engineering services for shore protection along the northshore of Lake Pontchartrain coastline in two areas by constructing rock dikes in St. Tammany Parish, LA. Gulf South's scope includes drilling 16 borings each to a depth of 30 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$65,000 (fee); 2023)</p>	

TEC Professional Services Questionnaire

Other experience and qualifications: **Bryson S. Beard, P.E., ACI (continued)**

LaPlace Water Source Project: New Intake, Pump Stations & Pretreatment Facility, LaPlace, St. John the Baptist Parish, LA. Geotechnical engineering services for the construction of a new water source infrastructure project between the Mississippi River (MSR; east bank) and railway just north of 5th street in LaPlace, LA. Proposed structures will consist of water intake structure, pump stations, pipeline crossing levee, below grade pipelines, and a pretreatment plant. Gulf South's scope includes permitting, clearing, drilling ten undisturbed soil borings (3 at 80 ft, 3 at 30 ft, 3 at 100 ft, and 1 at 150 ft) below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. (\$100,000 (fee); ongoing)

Barber Road Bank Stabilization, Paradis, St. Charles Parish, LA. Geotechnical engineering services for portions of the road that have failed or are failing into the ditch along Barber Road in Paradis, LA. Gulf South's scope includes drilling five borings (depth of 40 feet below ground surface), laboratory testing, engineering analyses (slope stability analyses, pavement design) and general construction procedures and recommendations. (\$12,000 (fee); 2022)


Bucktown Paddlers Launch, Metairie, Jefferson Parish, LA. Gulf South provided construction materials testing and inspection during construction of the project. Gulf South's scope of work includes building earthwork, paving & concrete, concrete testing, soil density tests, pile inspection and modeling, and vibration monitoring. (\$15,000; 2023)

Geotechnical Exploration Proposal (LED Site Certification), Port of Terrebonne, Houma, LA. Geotechnical services regarding LED Certification for a 35-acre site along Rome Woodard Drive for the Port of Terrebonne in Houma, LA. Drilled undisturbed soil borings. Geotechnical laboratory testing performed in accordance with ASTM standards, and includes strength tests (unconfined and/or triaxial), classification tests (Atterberg Limits and/or particle size), and other testing as appropriate. Geotechnical evaluation includes subsoil conditions, allowable soil bearing values, allowable pile load capacities, settlement estimates, and general construction procedures & recommendations. (\$5,900 (fee); 2024)

City of New Orleans Municipal Yacht Harbor Fishing Pier and Restroom, City of New Orleans, LA. Gulf South performed the Geotechnical Investigation for the project, which consists of a new fishing pier and restroom building at the Municipal Yacht Harbor along the south shore of Lake Pontchartrain in New Orleans, LA. The restroom will be an elevated structure, approximately 700 square feet, and constructed on land. The pier will be approximately 300 to 400 feet in length and extend from shore into Lake Pontchartrain. The project involves field investigation, laboratory testing, and geotechnical engineering services. (\$42,070 (fee); 2023)

Bucktown Harbor New Dock and Loading Area, Metairie, Jefferson Parish, LA. Geotechnical engineering services for construction of a new dock and bulkhead at Jefferson Parish's Bucktown Harbor in Metairie, LA. Gulf South's scope includes drilling one boring to a depth of 50 feet below the ground surface and one boring in Lake Pontchartrain to a depth of 50 feet below mudline, laboratory testing, engineering analyses (allowable pile load capacities, slope stability, sheetpile wall analyses), and general construction procedures and recommendations. (\$10,500 (fee); 2022)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Joseph H. "Trey" Binder, III, ACI Laboratory Manager	
Project Assignment:	
Laboratory Manager; Laboratory Technician	
Name of Firm with which associated:	
<div style="display: flex; align-items: center;">  <div> ENGINEERING AND TESTING, INC. Geotechnical & Materials Consultants </div> </div>	
Years' experience with this Firm:	
13 years (joined Gulf South in 2011); 13 years total (2011)	<i>Gulf South Engineering and Testing, Inc. 2011 to present</i> <i>Ardaman and Associates, Inc. 2007 to 2011</i> <i>Soil Testing Engineers, Inc. 2006 to 2007</i>
Education: Degree(s)/Year/Specialization:	
A.D., General Studies (2006; Nunez Community College)	
Active Registration: Year first registered/discipline:	
HAZMAT Awareness HAZMAT Operations Training ACI Aggregate Base Testing Technician ACI Concrete Strength Testing Technician	
Other experience and qualifications relevant to the proposed Project:	
<p>Trey Binder has direct experience with field and laboratory testing services. Mr. Binder's field work includes soil inspection and testing consisting of nuclear density testing and soil boring logging, vibration monitoring, pile inspection, concrete testing and inspection, asphalt testing and inspection, and pavement coring. In the laboratory, Mr. Binder has performed soil laboratory testing consisting of unconfined compression strength tests, triaxial strength tests, Atterberg limits, organic content tests, moisture and density tests, Proctor compaction tests, sieve analyses, and sample extrusion.</p> <p>Tchefuncte Marsh Shoreline Protection Project: New Borrow Fill Area, Lake Pontchartrain, St. Tammany Parish, LA. Geotechnical engineering services for shoreline protection along the Lake Pontchartrain coastline by construction of a rock dike (approximately 15,000 linear feet) and marsh fill area located east of the mouth of the Tchefuncte River in St. Tammany Parish, LA. Gulf South's scope includes drilling 14 borings within the lake, each to a depth of 40 feet below the water surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$90,000 (fee); 2021)</p>	

TEC Professional Services Questionnaire

Other experience and qualifications: **Joseph H. "Trey" Binder, III, ACI (continued)**

Northshore Living Shoreline Protection, Lake Pontchartrain, St. Tammany Parish, LA. Geotechnical engineering services for shore protection along the northshore of Lake Pontchartrain coastline in two areas by constructing rock dikes in St. Tammany Parish, LA. Gulf South's scope includes drilling 16 borings each to a depth of 30 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$65,000 (fee); 2023)


Bayou Des Allemands Gate, Upper Barataria Risk Reduction Program Segment 3, St. Charles Parish, LA. Geotechnical investigation for construction of a new swinging barge gate structure within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 2 at 120 ft., 1 at 100 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. One boring was performed over water; the remaining borings were performed over land. (\$145,885 (fee); 2021)

Highway 90 Tie-In Levee, Upper Barataria Risk Reduction Program Segment 4, St. Charles Parish, LA. Geotechnical investigation for construction of a new earthen levee within the flood protection/risk reduction system in St. Charles Parish, LA. Scope includes drilling undisturbed soil borings, CPT probes, lab testing, and engineering analyses (site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship), estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. (\$174,720 (fee); 2021)

Bayou Gauche/Sunset Levee - New Roller Gate, Upper Barataria Risk Reduction Program Segment 2, St. Charles Parish, LA. Geotechnical investigation for construction of a new roller gate and T-wall structures. Gulf South's scope includes drilling undisturbed soil borings (2 at 200 ft.), CPT probes (2 at 200 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, design levee lift stability, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. The borings and CPT were performed over water using barge-mounted equipment. (\$110,880 (fee); 2020)

Airline Highway Backwater Protection Project, St. John the Baptist Parish, LA. Geotechnical engineering services for the construction of a new water source infrastructure project between the Mississippi River (MSR; east bank) and railway just north of 5th street in LaPlace, LA. Proposed structures will consist of water intake structure, pump stations, pipeline crossing levee, below grade pipelines, and a pretreatment plant. Gulf South's scope includes permitting, clearing, drilling ten undisturbed soil borings below the ground surface, execution of laboratory testing, provision of engineering analyses (bearing values, bedding & backfills settlement, pile capacities, earth pressures, slope stability, cofferdam analyses, levee analyses) and establishing general construction procedures and recommendations. (\$55,000 (fee); 2020)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Eric A. Paille, C.E.T., ACI Construction Services Manager	
Project Assignment:	
Construction Services Manager	
Name of Firm with which associated:	
<div style="display: flex; align-items: center;">  <div> ENGINEERING AND TESTING, INC. Geotechnical & Materials Consultants </div> </div>	
Years' experience with this Firm:	
13 years (joined Gulf South in 2011); 35 years total (1989)	<i>Gulf South Engineering and Testing, Inc. 2011 to present</i> <i>Ardaman and Associates, Inc. 2007 to 2011</i> <i>Soil Testing Engineers, Inc. 1988 to 2007</i>
Education: Degree(s)/Year/Specialization:	
High School Diploma	
Active Registration: Year first registered/discipline:	
<i>ACI-I Field Technician (since 1991; No. 929012)</i> <i>Certified Engineering Technician (since 1992)</i> <i>Nuclear Gauge Safety Training (since 1994; No. 061321)</i> <i>Pile Driving Analyzer/CAPWAP, OSHA 40 HAZWOPER</i>	
Other experience and qualifications relevant to the proposed Project:	
<p>Eric A. Paille, C.E.T., ACI, serves as Gulf South's Construction Services Manager as well as the manager of our Gonzales office. He has experience as a technician, inspector, and testing manager, and is knowledgeable in all aspects of construction materials testing and construction inspection. Mr. Paille has performed all applicable field and soil tests over the past 30+ years. In addition, he is certified in the safe use and handling of the nuclear density gauge. He received PDA training in 2003 and has knowledge of PDA testing along with significant experience with pile driving analyzers. Mr. Paille is one of the most knowledgeable people in our industry.</p> <p>Highway 90 Tie-In Levee, Upper Barataria Risk Reduction Program Segment 4, St. Charles Parish, LA. Geotechnical investigation for construction of a new earthen levee within the flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 3 at 75 ft.), CPT probes (6 at 75 ft.), lab testing, and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. (\$174,720 (fee); 2021)</p>	

TEC Professional Services Questionnaire

Other experience and qualifications: **Eric A. Paille, C.E.T., ACI (continued)**

Marsh Island Wildlife Refuge Levee/Bulkhead Repairs (Louisiana DNR), Vermillion Bay, New Iberia, Iberia Parish, LA. Geotechnical investigation for various repairs to a dam, levee, and bulkhead at Marsh Island Wildlife Refuge in Iberia Parish, LA. Gulf South's scope of work includes drilling five soil borings each to a depth of 60 feet using marsh drilling equipment, laboratory testing, and geotechnical engineering services consisting of providing allowable soil bearing values, allowable pile capacities, bulkhead design parameters, slope stability analyses, estimates of settlement, and general construction recommendations. (\$51,250 (fee); 2014)


Proposed Estuary Mitigation Bank (EMB) GIWW - Deadend Canal, Vendome Canal, Hockey Stick Canal, Crown Point, Jefferson Parish, LA. Geotechnical investigation for construction of a new wetland restoration project near Crown Point, LA. Gulf South's scope includes drilling nine soil borings to depths of 15 and 40 feet in water and marsh, lab testing (including settlement column test), and geotechnical engineering analysis including estimates of settlement, time rate of settlement, borrow/fill ratios, and general construction recommendations. (\$26,500 (fee); 2016)

Marsh Island Restoration Project, Lafreniere Park, Metairie, Jefferson Parish, LA. Geotechnical investigation for construction of a new bulkhead wall around Marsh Island within Lafreniere Park in Metairie, LA. Gulf South's scope includes drilling two soil borings each to a depth of 30 feet on the island, lab testing, and geotechnical engineering analyses including sheetpile and/or retaining wall design parameters, earth pressures, and general construction procedures and recommendations. (\$5,000 (fee); 2017)

South Lafourche Levee District - Morganza to the Gulf (Reach K Mitigation Area), Lafourche Parish, LA. Geotechnical investigation for a wetlands mitigation project in Lafourche Parish, LA. Project consists of dredging various canals (totaling approx. 2.6 miles or 13,750 lf) and creating wetlands (approx. 40 acres). Gulf South's scope includes drilling 18 undisturbed soil borings to depths of 10 feet (12 borings in canals) and 30 feet (6 borings in fill area) below apparent mud line, lab testing (including consolidation tests & Settlement Column tests), and engineering analyses (inclusive of estimates of settlement, borrow/fill ratios, time rate settlement, slope stability analyses), and general construction recommendations. All borings were performed over water using barge and marsh buggy equipment. Analyses submitted, reviewed, and approved by the Louisiana Department of Natural Resources and the U.S. Army Corps of Engineers. (\$42,000 (fee); 2017)

Bayou Des Allemands Gate, Upper Barataria Risk Reduction Program Segment 3, St. Charles Parish, LA. Geotechnical investigation for construction of a new swinging barge gate structure within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 2 at 120 ft., 1 at 100 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. One boring was performed over water; the remaining borings were performed over land. (\$145,885 (fee); 2021)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Ian Kerner Poché, ACI Assistant Laboratory Supervisor	
Project Assignment:	
Assistant Laboratory Supervisor	
Name of Firm with which associated:	
<div style="display: flex; align-items: center;">  <div> ENGINEERING AND TESTING, INC. Geotechnical & Materials Consultants </div> </div>	
Years' experience with this Firm:	
7 years (joined Gulf South in 2017); Gulf South Engineering and Testing, Inc. 2017 to present 7 years total (2017)	
Education: Degree(s)/Year/Specialization:	
High School Diploma	
Active Registration: Year first registered/discipline:	
ACI Concrete Field Testing Technician - Grade 1 (exp 2028 03) ACI Aggregate Testing Technician - Level 1 (exp 2029 02 27)	
Other experience and qualifications relevant to the proposed Project:	
<p>Ian Poché has worked in Gulf South's laboratory for several years and has experience with virtually every type of soil test. He has also helped when needed in the CMT department and has concrete testing experience, and is an ACI-certified Concrete Field Testing Technician.</p> <p>Bayou Des Allemands Gate, Upper Barataria Risk Reduction Program Segment 3, St. Charles Parish, LA. Geotechnical investigation for construction of a new swinging barge gate structure within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 2 at 120 ft., 1 at 100 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. One boring was performed over water; the remaining borings were performed over land. (\$145,885 (fee); 2021)</p> <p>City of New Orleans Municipal Yacht Harbor Fishing Pier and Restroom, City of New Orleans, LA. Gulf South performed the Geotechnical Investigation for the project, which consists of a new fishing pier and restroom building at the Municipal Yacht Harbor along the south shore of Lake Pontchartrain in New Orleans, LA. The restroom will be an elevated structure, approximately 700 square feet, and constructed on land. The pier will be approximately 300 to 400 feet in length and extend from shore into Lake Pontchartrain. The project involves field investigation, laboratory testing, and geotechnical engineering services. (\$42,070 (fee); 2023)</p>	

TEC Professional Services Questionnaire

Other experience and qualifications: **Ian Kerner Poché, ACI (continued)**

Geotechnical Exploration Proposal (LED Site Certification), Port of Terrebonne, Houma, LA. Geotechnical services regarding LED Certification for a 35-acre site along Rome Woodard Drive for the Port of Terrebonne in Houma, Drilled undisturbed soil borings. Geotechnical laboratory testing performed in accordance with ASTM standards, and includes strength tests (unconfined and/or triaxial), classification tests (Atterberg Limits and/or particle size), and other testing as appropriate. Geotechnical evaluation includes subsoil conditions, allowable soil bearing values, allowable pile load capacities, settlement estimates, and general construction procedures & recommendations. (\$5,900 (fee); 2024)

Improvements to Sewer Lift Station M-11-3 (13th & Farrington) and Force Main, Marrero, Jefferson Parish, LA. Gulf South provided the materials testing and inspection during construction. Gulf South's scope of services included vibration monitoring, bedding and backfill testing, compaction/density tests, and concrete testing and inspection. (\$15,000 (fee); 2019)


Lake Cataouatche Drainage Pump Station Replacement (Chighizola Lane), Grand Isle, Jefferson Parish, LA. Geotechnical engineering services for the construction of a replacement Lake Cataouatche drainage pump station at the end of Chighizola Lane in Grand Isle. Gulf South's scope includes drilling one undisturbed soil borings to a depth of 80 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Pump station is close to a USACE floodwall so coordination and geotechnical engineering analyses were required to show the new pump station would not adversely affect the integrity of the floodwall. (\$7,500 (fee); 2020)

Lift Station F-8-3 Replacement, Metairie, Jefferson Parish, LA. Geotechnical engineering services for the construction of a new lift station to replace the existing Jefferson Parish lift station (LS F-8-3) station off West Esplanade Avenue (between Houma Boulevard and Hudson Street) in Metairie, LA. Gulf South's scope includes drilling a single undisturbed soil boring to a depth of 100 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. (\$8,500 (fee); 2020)

Ole Miss Sewer Force Main, City of Kenner, LA. Geotechnical engineering services for the construction of a new sewer force main along Ole Miss Drive from the John Hopkins Lift Station to 35th Street within Kenner, LA. The force main will be 10-inches in diameter, approximately 2,100 linear feet, and installed 10 to 15 feet deep via directional drilling. Gulf South's scope includes drilling four undisturbed soil borings to depths of 20 feet below the ground surface, laboratory testing, engineering analyses (including soil bearing values, bedding & backfill, and settlement) and general construction procedures and recommendations. (\$8,000 (fee); 2021)

Lift Station Upgrade (24th St. and Delaware Ave.), City of Kenner, LA. Geotechnical engineering services for construction of a new generator pad and wet well located at 24th Street and Delaware Avenue in Kenner, LA. Gulf South's scope of services includes drilling two borings to a depths of 70 feet (1 boring for wet well) and 50 feet (1 boring for generator pad) below the ground surface, laboratory testing, engineering analyses (soil bearing values, pile capacities, bedding & backfill, and estimates of settlement) and general construction procedures and recommendations. (\$7,500 (fee); 2022)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Brandon A. Paille, ACI Construction Materials Testing (CMT) Supervisor/Project Manager	
Project Assignment:	
Construction Materials Testing (CMT) Supervisor/Project Manager	
Name of Firm with which associated:	
<div style="display: flex; align-items: center;">  <div> ENGINEERING AND TESTING, INC. Geotechnical & Materials Consultants </div> </div>	
Years' experience with this Firm:	
5 years (2012-2016; 2023 to present); 14 years total (2010)	<i>Gulf South Engineering and Testing, Inc. 2023 to present</i> <i>Ascension Parish Sheriff's Office 2016 to 2023</i> <i>Gulf South Engineering and Testing, Inc. 2012 to 2016</i> <i>Ardaman and Associates, Inc. 2010 to 2012</i>
Education: Degree(s)/Year/Specialization:	
<i>High School Diploma</i>	
Active Registration: Year first registered/discipline:	
APNGA Nuclear Gauge Safety ACI Field Technician Level 1 OSHA Safety Training – 8 hr.	
Other experience and qualifications relevant to the proposed Project:	
<p>Brandon A. Paille, ACI has performed soil laboratory testing consisting of unconfined compression strength tests, triaxial strength tests, hydrometers, Atterberg limits, organic contents, moisture contents, proctor compaction tests, sieve analyses, as well as extrusion of samples. Mr. Paille's field experience includes soil inspection and testing consisting of nuclear density testing, soil boring logging, concrete testing and inspections, timber and precast pile logging and vibration monitoring. In Mr. Paille's years in the construction materials testing industry, he has obtained a vast amount of knowledge and experience which makes him an integral part of our Gulf South Team.</p> <p>Bayou Sauvage Water Control Pipe Replacement, U.S. Wildlife & Fisheries, New Orleans, LA. Geotechnical investigation for drainage pipe replacement at 2 sites for the U. S. Fish and Wildlife in New Orleans, LA. New drainage pipes will be 6 feet in diameter. Drill 1 boring to 20 feet in depth at each site and perform laboratory testing and geotechnical engineering analyses consisting of allowable soil bearing values, bedding and backfill recommendations, estimates of settlement, and general construction recommendations. (\$3,500 (fee); 2012)</p> <p>Bucktown Paddlers Launch, Metairie, Jefferson Parish, LA. Gulf South provided construction materials testing and inspection during construction of the project. Gulf South's scope of work includes building earthwork, paving & concrete, concrete testing, soil density tests, pile inspection and modeling, and vibration monitoring. (\$15,000; 2023)</p>	

TEC Professional Services Questionnaire

Other experience and qualifications: **Brandon A. Paille, ACI (continued)**

Bonanza Pump Station Flood Protection, Houma, Terrebonne Parish, LA. Geotechnical investigation for replacement of an existing bulkhead at Terrebonne Parish's Bonanza Pump Station in Houma, LA. Gulf South's scope of work included performing a soil boring to a depth of 80 feet, laboratory testing, and geotechnical engineering analyses consisting of bulkhead design parameters (tip depth, bending moment, anchor force, etc.), and general construction recommendations. (\$4,500 (fee); 2013)

Casing Installation - 40 Arpent Canal Floodwall, Chalmette, St. Bernard Parish, LA. Geotechnical investigation for casing installations at 40 Arpent Canal floodwall in Chalmette, LA. Casings installed to perform sonic tests to determine sheet pile lengths. Casings installed to depths of 40 to 60 feet below the ground surface and within 15 feet of the existing sheet pile. (\$18,900 (fee); 2014)

Bonnabel Boat Launch Ramp Replacement, Jefferson Parish, LA. Geotechnical investigation for improvement/replacement of the existing boat ramps at the Bonnabel Boat Launch in Metairie, LA. The expansion consists of 3 (50'x60') pile supported concrete ramps. Scope of work included drilling two (2) soil borings to a depth of 60 feet each and providing laboratory testing, and geotechnical engineering analysis consisting of pile load capacities, estimates of settlement, and general construction recommendations. (\$4,000 (fee), 2014)

Drainage System Engineering Analysis – CCTV Drain Line Inspections, City of New Orleans, LA. Project management and oversight of cleaning/flushing and inspection of sewer drainage pipelines in New Orleans, LA. Gulf South oversaw field operations and coordinated project phases with subcontractors. Subcontractor's inspection methods will utilize CCTV camera equipment to record drain line data. During post processing phase, all data was compiled and consolidated to create a digital database of the drain line information. (\$20,000 (fee); 2014)

New Pump/Lift Station, Airline Park Boulevard at West Metairie Avenue, Jefferson Parish, LA. Geotechnical investigation for a new pump/lift station for Jefferson Parish near the intersection of Airline Park Blvd. and W. Metairie Avenue. Scope of work consisted of performing one soil boring to 50 feet, laboratory testing, and geotechnical engineering analyses consisting of allowable soil bearing values, bedding and backfill recommendations, estimates of settlement, and general construction recommendations. (\$5,000 (fee); 2013)

Taft Park Drainage Improvements, Jefferson Parish, LA. Perform inspection and testing during construction of various drainage improvements at Taft Park. Scope of services provided by Gulf South included asphalt and/or concrete testing and inspection, field density tests, on-site inspection and documentation, and laboratory testing. (\$25,000 (fee); 2015)

Water Sampling in Mobile Bay, U.S. Coast Guard – Aviation Training Center, Mobile, AL. Surface water sampling in Mobile Bay at 3 locations, 2 times per month for period of 1 year. Samples were tested for Enterococci, Organic Carbon, and TSS. Gulf South reported every event as well as summarized every 3 months of sampling, and further compared results to EPA thresholds. Report rainfall levels were noted 3 days prior and after sampling. (\$33,000 (fee); 2012)

TEC Professional Services Questionnaire

- L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this project. Please include and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

PROJECT NO. 1

Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Tchefuncte Marsh Shoreline Protection Project: New Borrow Fill Area, Lake Pontchartrain, St. Tammany Parish, Louisiana Volkert, Inc. 9448 Brookline Ave Baton Rouge LA 70809 Matt Salmon, 225-218-9440 matt.salmon@volkert.com	Geotechnical engineering services for shoreline protection along the Lake Pontchartrain coastline by construction of a rock dike (approximately 15,000 linear feet) and marsh fill area located east of the mouth of the Tchefuncte River in St. Tammany Parish, LA. Gulf South's scope includes drilling 14 borings within the lake, each to a depth of 40 feet below the water surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
December 2021	N/A	\$90,000 (fee)

PROJECT NO. 2

Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Proposed Estuary Mitigation Bank (EMB) GIWW - Deadend Canal, Vendome Canal, Hockey Stick Canal, Crown Point, Jefferson Parish, Louisiana The Natural Resources Investment Group, LLC 3801 Woodland Heights Rd Ste 110 Little Rock AR 72217 Robert Stainton III, PE, 501-716-2884 robert@tnrig.com	Geotechnical investigation for construction of a new wetland restoration project near Crown Point, LA. Gulf South's scope includes drilling nine soil borings to depths of 15 and 40 feet in water and marsh, lab testing (including settlement column test), and geotechnical engineering analysis including estimates of settlement, time rate of settlement, borrow/fill ratios, and general construction recommendations.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
October 2016	N/A	\$26,500 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Northshore Living Shoreline Protection, Lake Pontchartrain, St. Tammany Parish, Louisiana</p> <p>Barowka & Bonura Engineers 209 Canal Street Metairie LA 70005</p> <p>Jeff Bonura, P.E., 504-828-0030 jbonura@bbecllc.com</p>	<p>Geotechnical engineering services for shore protection along the northshore of Lake Pontchartrain coastline in two areas by constructing rock dikes in St. Tammany Parish, LA. Gulf South's scope includes drilling 16 borings each to a depth of 30 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
February 2023	N/A	\$65,000 (fee)

PROJECT NO. 4		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Marsh Island Wildlife Refuge Levee/ Bulkhead Repairs (Louisiana DNR), Vermillion Bay, New Iberia, Iberia Parish, Louisiana</p> <p>Royal Engineers & Consultants, LLC 3909 Ambassador Caffery Pkwy. Lafayette LA 70503</p> <p>Beau Tate, 337-456-5351 btate@royalengineering.net</p>	<p>Geotechnical investigation for various repairs to a dam, levee, and bulkhead at Marsh Island Wildlife Refuge in Iberia Parish, LA. Gulf South's scope of work includes drilling five (5) soil borings each to a depth of 60 feet using marsh drilling equipment, laboratory testing, and geotechnical engineering services consisting of providing allowable soil bearing values, allowable pile capacities, bulkhead design parameters, slope stability analyses, estimates of settlement, and general construction recommendations.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
May 2015	N/A	\$51,250 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Tchefuncte Marsh Shoreline Protection - New Rock Dikes, Lake Pontchartrain, St. Tammany Parish, Louisiana</p> <p>Principal Engineering, Inc. 1011 North Causeway Blvd, Suite 19 Mandeville LA 70471</p> <p>Andre Monnot, P.E., 985-624-5001 andre@pi-aec.com</p>	<p>Geotechnical engineering services for the shore protection along Lake Pontchartrain coastline by constructing a rock dike at Tchefuncte Marsh in St. Tammany Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (18 at 30 ft) in Lake Pontchartrain, laboratory testing (including consolidation tests), engineering analyses (bearing values, settlement, slope stability, construction procedures & recommendations). The project utilized shallow-draft barge equipment.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2020	N/A	\$65,000 (fee)

PROJECT NO. 6		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Highway 90 Tie-In Levee, Upper Barataria Risk Reduction Program (UBRR) Segment 4, St. Charles Parish, Louisiana</p> <p>Lafourche Basin Levee District 21380 Highway 20 Vacherie LA 70090</p> <p>Donald Ray Henry, 225-265-7545 drhenry@lbld.us.com</p>	<p>Geotechnical investigation for construction of a new earthen levee within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 3 at 75 ft.), CPT probes (6 at 75 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
January 2021	N/A	\$174,720 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Marsh Island Restoration Project, Lafreniere Park , Metairie, Jefferson Parish, Louisiana Mathes Brierre Architect 201 St. Charles Street, Suite 4100 New Orleans LA 70170-4100 Scott Evans, AIA , 504-586-9303 sevans@mathiesbrierre.com	Geotechnical investigation for construction of a new bulkhead wall around Marsh Island within Lafreniere Park in Metairie, LA. Gulf South's scope includes drilling two soil borings each to a depth of 30 feet on the island, lab testing, and geotechnical engineering analyses including sheetpile and/or retaining wall design parameters, earth pressures, and general construction procedures and recommendations.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
May 2017	N/A	\$5,000 (fee)

PROJECT NO. 8		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Bayou Des Allemands Gate, Upper Barataria Risk Reduction (UBRR) Program Segment 3 , St. Charles Parish, Louisiana Lafourche Basin Levee District 21380 Highway 20 Vacherie LA 70090 Donald Ray Henry , 225-265-7545 drhenry@lbld.us.com	Geotechnical investigation for construction of a new earthen levee within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 3 at 75 ft.), CPT probes (6 at 75 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
February 2021	N/A	\$145,885 (fee)

TEC Professional Services Questionnaire


PROJECT NO. 9		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Engineering Analysis Review (EAR) - Lafitte Tidal Protection Project (Phase I), Lafitte, Jefferson Parish, Louisiana G&S Engineering, LLC Post Office Box 71 Mandeville LA 70470 Scott Gros, 504-744-0630 scottgros@gmail.com	Engineering analysis review of alternative pile type/size recommendations (provided by Client) for drainage structure site in Jefferson Parish, near Lafitte, LA. Gulf South's scope includes engineering analysis consisting of LPILE analysis and general construction recommendations.	
Completion Date (Actual or estimated:)	Estimated Cost:	
June 2016	Entire Project:	Work for which Firm was Responsible:
June 2016	N/A	\$5,000 (fee)

PROJECT NO. 10		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Laketown Boat Launch Improvements - New Rock Jetty, South Shore Lake Pontchartrain, City of Kenner, Jefferson Parish, Louisiana Jefferson Parish 1221 Elmwood Park Blvd Ste 310 Jefferson LA 70123 Michelle M. Gonzales, CFM, 504-736-6653 mgonzales@jeffparish.net	Geotechnical engineering services for the construction of a rock jetty dike and boat launch protection along the Lake Pontchartrain shoreline at the Laketown Boat Launch in Kenner. Gulf South's scope includes drilling undisturbed soil borings (two at 50 ft bgs), laboratory testing, engineering analyses and general construction procedures and recommendations. One boring was drilled within Lake Pontchartrain (using barge-mounted drilling equipment) and one boring was drilled on land.	
Completion Date (Actual or estimated:)	Estimated Cost:	
January 2021	Entire Project:	Work for which Firm was Responsible:
January 2021	N/A	\$21,500 (fee)

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.		
Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1.	<div style="border: 1px solid black; padding: 10px; margin: 5px;"> <i>Gulf South Engineering and Testing, Inc. is not currently, nor has it previously been involved, in litigation with Jefferson Parish.</i> </div>	
2.		
3.		
4.		

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.



ENGINEERING AND TESTING, INC.
 Geotechnical & Materials Consultants

CRITERIA 1 | PROFESSIONAL TRAINING AND EXPERIENCE

Gulf South Engineering and Testing, Inc. (Gulf South) is a geotechnical engineering and construction materials testing and inspection company which began operations in 2011. Since that time, we have grown to two offices and nearly three dozen employees.

Gulf South provides a broad range of geotechnical related services, completing more than 100 geotechnical engineering projects and 300 construction materials testing and inspection projects each year. These projects typically include soil borings (shallow and deep borings), laboratory testing (AASHTO, ASTM methods, etc.), soil classification (USCS), geotechnical engineering, and construction material testing and field inspection.

Gulf South is a woman-owned, Hudson Initiative-certified small entrepreneurship in Louisiana. Our laboratory is AASHTO and CCRL certified and USACE validated.

Geotechnical Engineering Services

Gulf South's ownership and senior management have decades of combined experience in the profession and have completed thousands of projects. One of Gulf South's Principals, Chad M. Poché, P.E., a founding principal and Professional Engineer registered in Civil Engineering in Louisiana and Mississippi, has specific and extensive training & experience in geotechnical engineering. He has three decades of experience in planning, administering, and conducting geotechnical investigations.

TEC Professional Services Questionnaire

N. continued.

The firm has specific engineering experience and training in **Geotechnical Engineering, Foundation Design, and Geology & Geohydrology**; our staff has extensive experience in all aspects of soil mechanics and geotechnical engineering with specific knowledge in the following areas:

- Shallow and deep foundations (piles, shafts, augercast, screw/anchor piles)
- Deep excavations, cofferdams, retaining walls
- Levees and soft ground construction; slope stability & seepage
- Earthwork; settlement analyses
- Shoreline protection
- Scour analyses
- LRFD Design
- Mechanically Stabilized Earth (MSE) Walls
- Development of load test programs
- Geotechnical instrumentation and construction monitoring
- Canals and pump station foundations
- Pipe bedding and backfill
- Roadways, bridges, pavements

Field Investigation Services

Gulf South owns truck mounted (ARDCO C-1000) and track mounted (ARDCO SD 350) drilling rigs with associated and appurtenant support equipment (water trucks and buggy). Our equipment and crews are capable of drilling soil borings to depths of up to 300 feet and installing monitor wells, piezometers, and inclinometers. We can also perform CPT soundings, geoprobe borings, and field testing at any site. Our staff has extensive experience in planning, oversight, and direction of field investigations.

Laboratory Testing Services

Gulf South's laboratory is equipped to serve the specific needs of our clients and managed by trained and experienced personnel. All testing is performed in accordance with ASTM, AASHTO, and/or other approved procedures. Gulf South routinely performs soil and concrete strength testing (unconfined and triaxial), soil classification tests (Atterberg limits, moisture content, density, particle size), soil and aggregate sieves, organic content, pH, soil resistivity, and moisture/density relationships (Proctor tests). Gulf South's laboratories are managed by full time, experienced, managers and staff. Further, Gulf South's Kenner laboratory is AASHTO and CCRL certified and USACE validated.

Construction Materials Testing & Inspection

Gulf South provides a full range of construction materials testing & inspection services for structures, earthwork, foundations, pipelines, and pavements. The range of services provided includes:

- Fill and base compaction and density testing
- Vibration monitoring
- Pre- and post-construction inspection

TEC Professional Services Questionnaire

N. continued.

- Concrete testing and inspection
- Soil testing (field and laboratory)
- Asphalt testing
- Pile (driven & augercast) and shaft installation monitoring
- Load tests
- Earthwork/proof roll inspection
- Welding inspection
- Steel inspection
- Noise monitoring
- Prepare daily field reports and/or field books
- Maintain records per the client's directive

We have provided construction testing & oversight for projects as small as a house pad to as large as the **\$1.2 billion Louis Armstrong New Orleans International Airport North Terminal** project.

Please refer to our projects included in Item L and in our personnel listings in Item K for specific type project examples and an overview of our professional experience with this project type.

CRITERIA 2 | SIZE OF FIRM

At over 30 employees, Gulf South has the appropriate number of employees and personnel for this project. We will complete our scope of services on time and within budget. Further said, Gulf South can readily meet the time and budget constraints for projects assigned to this contract. Our current workload is such that we can expeditiously complete projects for this contract.

CRITERIA 3 | CAPACITY FOR TIMELY COMPLETION

Activity is dependent on the scope of work as well as site access and conditions, however; typically soil borings can be started within one week of receiving notice to proceed with a final product delivered within 3 to 4 weeks of completing the borings. Gulf South's workload & scheduling, coupled with our headquarters being nearby, will allow for assignment of key personnel shortly after any project is assigned.

CRITERIA 4 | PAST PERFORMANCE ON PARISH CONTRACTS

Gulf South has worked both directly and indirectly for various Jefferson Parish Departments (Public Works, Engineering Department, Drainage Department, Jefferson Parish School Board, etc.) throughout our history. Beyond the projects included within this form, additional project information (including listings, background, & client contacts) are available upon request. We have also completed similar services for Public and Private concerns throughout the region.

CRITERIA 5 | LOCATION OF THE PRINCIPAL OFFICE

Gulf South Engineering and Testing has been headquartered in Jefferson Parish since beginning operations in 2011; our principal office is located in Jefferson Parish at 15 Veterans Memorial Boulevard in Kenner. We also maintain an office in Gonzales, LA.

TEC Professional Services Questionnaire

N. continued.

CRITERIA 6 | LEGAL STATEMENT

As stated in Item M, Gulf South has had no litigation, past or present, with Jefferson Parish, nor any of our clients.

CRITERIA 7 | PRIOR SUCCESSFUL COMPLETION OF PROJECTS

The Principals and key employees of Gulf South have many years of applicable experience in working for and with Government Agencies and private industry. Founding principal and Executive Vice President of Gulf South, Chad M. Poché, P.E., has been a practicing registered geotechnical engineer in South Louisiana since 1998. He has specialized training and experience in geotechnical engineering throughout Louisiana.

As evidenced in the provided projects and personnel résumés, key personnel experience includes the completion of thousands of projects in the region throughout their careers for a broad range of clients, including both the government and private sectors. We can submit data in formats acceptable and customized to our clients' needs.

Gulf South invites you to contact any of our clients for a candid discussion of our service and professionalism, and offer these direct references:

Neil Schneider, CCM, P.E., Director, Capital Projects, Jefferson Parish
(504-736-6783 | JPPW@jeffparish.net)

Ben Lepine, Acting Director, Drainage Department, Jefferson Parish
(504-736-6751 | JPDrainage@jeffparish.net)

Angela DeSoto, P.E., Director, Engineering Department, Jefferson Parish
(504-736-6511 | ADeSoto@jeffparish.net)

Mark R. Drewes, P.E., Director, Public Works Department, Jefferson Parish
(504-736-6783 | JPPW@jeffparish.net)

Michael B. Cooper, Parish President, St. Tammany Parish
(985-898-2362 | president@stpgov.org)

Joey Tureau, Director of Transportation, Ascension Parish
(225-450-1013 | jtureau@apgov.us)

José A. Gonzales, CAO, City of Kenner
(504-468-4090 | jgonzalez@kenner.la.us)

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature: _____

Print Name: Chad M. Poché, P.E.

Title: Executive Vice President

Date: June 25, 2024

Section Four

Pivotal Engineering – SOQ Packet

Section 1 - Introduction

Completing engineering projects in the Greater New Orleans area requires a unique blend of technical experience, well-developed understanding of local environmental conditions and sensitivity to community stakeholders. The **Pivotal Engineering, LLC. – BFM – Gulf South** team is an assembly of firms with a proven track record in delivering quality professional engineering and emergency assessments. The reputation of each firm stands alone as a leader in their respective disciplines. For this project, maximum attention will be given to the technical, social, environmental, and innovative aspects of assessments, design, and maintenance.

The foundation of this team is comprised of both their well-established working relationship and the comprehensive skill set they have collectively. Each firm brings a strong background in one or more of the following disciplines:

- Civil Engineering
- Environmental Engineering
- Coastal Restoration
- Transportation Engineering
- Structural Engineering
- Mechanical Engineering
- Electrical Engineering
- Facility Assessments
- Geotechnical Engineering & Testing
- Data Collection
- Data Management
- Data Analytics & Visualization
- Construction Management
- Construction Inspection
- Disaster Response
- Disaster Recovery
- Grant Management

Under these disciplines, each firm brings strong technical skills not only in the fundamental of engineering design, but in the latest trends, approaches and software needed for modern solutions. The team is well established in database management, geographic information systems (GIS), hydrologic/hydraulic modeling, computer-aided design and real-time monitoring equipment. Our team's capabilities will provide Jefferson Parish with the most effective and efficient approach for providing high quality services.

As guiding values, the team strives for open communication and continual improvement. With each

project, internal processes and methodologies are revised to ensure that planning, design and decision-making conversations are facilitated with efficiency and effectiveness. Each concept is vetted with considerations for innovation, resiliency, added value and technical feasibility. Engineering design must encompass classical theory, industry standards, modern technology and a touch of revolution.

Our integrated team will provide an optimized concurrent engineering environment that provides an opportunity to substantially reduce the design time and total cost of a project. Our integrated team includes skilled members from the various disciplines, which enables a simultaneous contribution to an early project definition and increased likelihood of reduced lifecycle cost. Our team is well positioned to avoid costly alterations later in the design process.

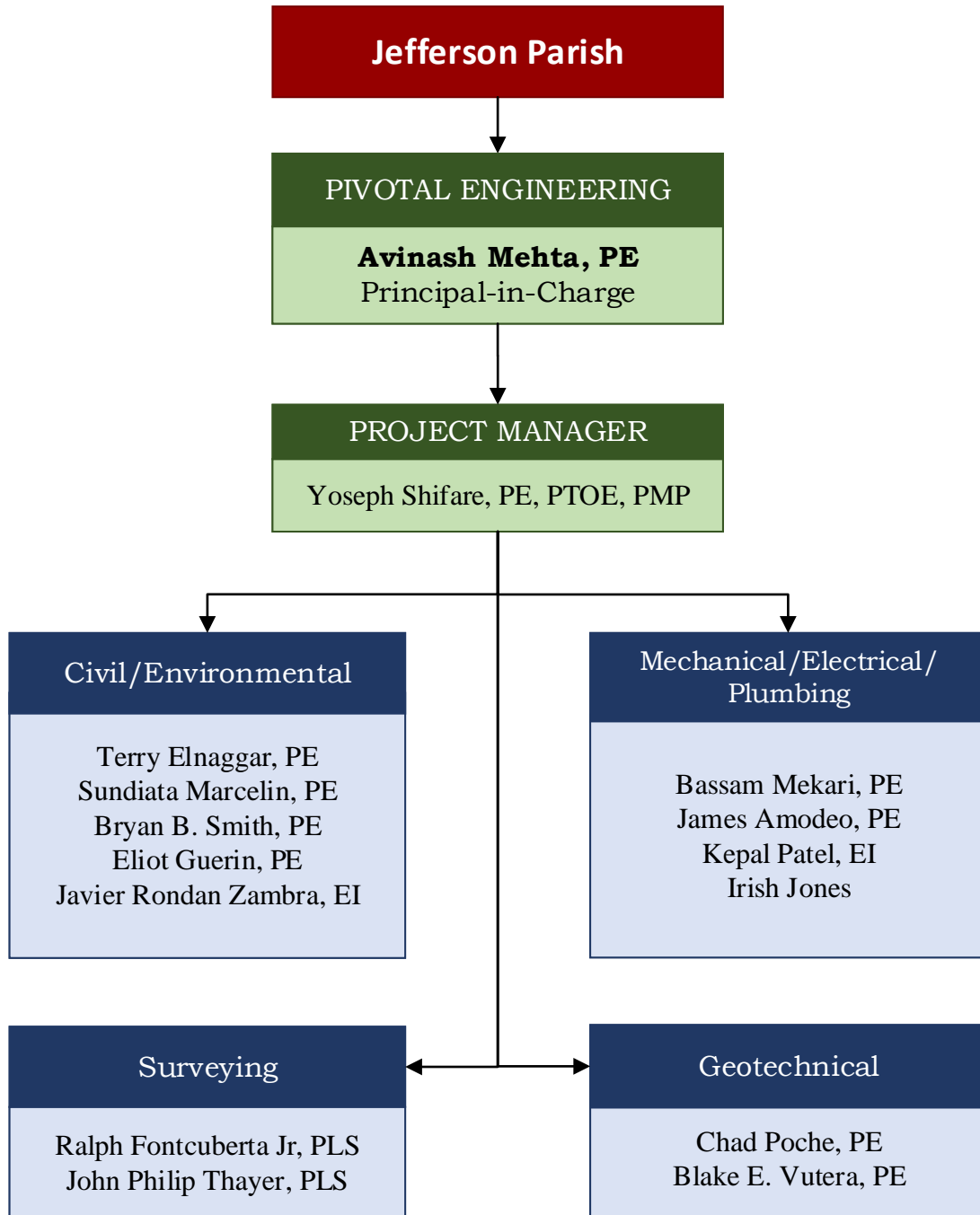
Our management team is comprised of experienced managers and task leaders with proven leadership, thoughtfully bringing together capable team members with exceptional technical skills and supporting them with good QA/QC processes. Open lines of communication and weekly internal conference calls will ensure that each project is managed successfully, on time, and within budget and schedule.

Our team is committed to defining the project and setting expectations as our first step toward making that project a success. We, as a team, will apply various techniques for project estimation and cost control including:

- Setting Expectations Early, Review Often
- Planning the Project Budget
- Keeping Track of Costs
- Establishing a Communication Plan
- Maintaining Effective Time Management
- Implement Project Change Control
- Use of Earned Value to Monitor Both Cost and Schedule

Our aim is to provide local talent combined with industry subject matter experts who can guide Jefferson Parish to the optimal solution and manage the implementation to a successful outcome.

Organizational Chart



Personnel Qualifications

Pivotal's Key Personnel have proven excellence in managing projects from cradle to grave while providing value engineering, which saved our clients hundreds of thousands of dollars. Our staff was essential in helping metropolitan New Orleans in expediting its post Katrina recovery by handling and completing over 50 critical City, Parish and/or FEMA funded projects. The current staff of Pivotal has extensive experience managing a variety of complex projects from conception to construction.

The majority of the teams's staff has extensive design as well as construction experience. This advantage minimizes contractor change orders, expedites project schedules and improves project details. Our Engineers have great track records with helping our clients meet compressed deadlines while eliminating unnecessary expenses yet delivering better than the intended product. We have also proven to our clients our added "Value Engineering" on several projects, which resulted in direct savings of hundreds of thousands' dollars.

Principal

Avinash Mehta, PE
Principal – Client Relations

Education

M.S. Civil Engineering, University of Central Florida, 2003

B.S. Civil Engineering, NMU – India, 2000

Professional Associations

LA PE # 35100

Experience

Mr. Mehta serves as a Principal of Pivotal Engineering. Mr. Mehta has over 18 years of experience managing civil and

environmental engineering projects including project budget, schedule and scope, coordination of resources, business development and client liaison activities. His experience includes the project management for A&E projects, process and design, civil engineering, water and wastewater engineering, drainage design and permitting, wastewater system design, potable water system design, conceptual planning, and design for coastal restoration projects.

Project Manager

Yoseph Shifare, PE, PTOE
Project Manager/Sr. Civil Engineer

Education

M.S. Civil Engineering, University of Louisville, Kentucky, 2014

B.S. Civil Engineering, University of Asmara, Eritrea, 2001

Professional Associations

LA PE # 42747 LA PTOE

Experience

Mr. Shifare serves as a Project Director of Pivotal Engineering in charge of Civil/Transportation engineering projects. He has over 19 years engineering, project and construction management experience for public infrastructures, industrial, commercial and private facilities. As a project director he designs, lead and manage the day-to-day efforts of engineers on projects that include roadway, traffic, drainage/storm water management, water and wastewater, and landfills. He is responsible to client liaison, manage the strategic aspects of project engagement, review high-level project deliverables, provides leadership, project

accounting and ensures the engineering practice meets or exceeds industry standard.

Civil/Environmental Engineering

Tarek Elnaggar, PE
Senior Environmental Engineer

Education

M.S. Civil Engineering, University of California, Berkley, 1988

B.S. Civil Engineering, Louisiana State University, 1985

Professional Associations

Louisiana/Civil/Environmental Engineering/23832

Texas/Civil/Environmental Engineering/85089

Mississippi/Civil/Environmental Engineering/14839

Experience

Mr. Elnaggar serves as a Principal of Pivotal Engineering LLC. He is the lead civil and environmental engineer for the company. His 30 years of experience includes project management and design work in roadways, drainage, sewer, earthen levees, floodwalls, floodgates, and pump stations. He has performed multiple engineering projects for public and private clients on the local, state, and federal level. He has also served on the construction program management side with both municipal, and industrial clients, providing oversight of projects designed by other consultants, providing design reviews and coordination between the consultant and the multiple other agencies involved. His experience includes design and construction management for civil and environmental projects including municipal and industrial solid waste permitting, risk assessments,

water permitting and compliance, air permitting and compliance, emission inventories and reporting, groundwater investigations, regulatory compliance, environmental process design, and permitting.

Sundiata Marcelin, PE
Civil Engineer

Education

BS. Civil Engineering

Professional Associations

LA PE # 38589

Experience

Mr. Marcelin has over 10 years of experience in both Civil and Structural Engineering as well as over 15 years of experience in Construction Management. This Civil Engineering experience includes complete urban roadway restoration design with new sewage, water, drainage, and full Right-Of-Way layout in Jefferson, St Bernard, and Orleans Parish. Mr. Marcelin's extensive knowledge of the civil infrastructure and design standards of Orleans Parish makes him a suitable candidate as an experienced design reviewer for both above ground and sub-surface infrastructure. His project experience include roadway, traffic analyses, pavement structural design, use of geosynthetics, geometric design, line and grade analyses, pavement marking, intersection improvements, pedestrian and bicycle lanes or paths, excavation and embankment, traffic, drainage/storm water management, water and wastewater systems.

Bryan B. Smith, PE
Environmental Engineer

Education

MS / 2014 / Civil and Environmental Engineering

BS / 2011 / Environmental Engineering

Professional Associations

LA PE # 0043843/ 2019

Experience

Mr. Smith serves as a project engineer at Pivotal Engineering, LLC in support of civil and environmental engineering projects. His projects range from public to private sector and require effort in both the field and the office. He has experience in infrastructure design, project management, permitting, field sampling, flow rate testing and laboratory analysis.

Eliot Guerin, PE
Civil Engineer

Education

B.S. / 2018 / Civil Engineering

Professional Associations

LA PE #0047729 / 2023 / Civil Engineering

Experience

Mr. Guerin is a Civil Engineer with 3 years of experience at Pivotal Engineering, focusing on roadway, sanitary sewer, and storm drainage design. His project experience include roadway, traffic analyses, pavement structural design, use of geosynthetics, geometric design, line and grade analyses, pavement marking, intersection improvements, pedestrian and bicycle lanes or paths, excavation and embankment, traffic, drainage/storm water management, water and wastewater, and landfills. He is a very competent design

engineer, and hydraulic & water quality modeler, and has excellent CIVIL 3D skills.

Javier Rondan Zambra, EI
Civil Designer

Education

M.S. Civil Engineering - 2021

B.S. Civil Engineering – 2018

Professional Associations

LA EI #035205 / 2022 / Civil Engineering

Experience

Mr. Rondan serves as a civil project engineer with over two (2) years of experience in the transportation sector with a special focus on highway design, construction, and maintenance. He is knowledgeable in traffic engineering design and operation. He is well versed in construction scheduling, means & methods for utility installations and green infrastructure integration.

**Mechanical/Electrical/
Plumbing Engineering**

Bassam Rossi Mekari, PE
Principal In Charge/ Senior Electrical Engineer

Education

BS, Electrical Engineering, Louisiana State University 1987

MS in Electrical Engineering - 3 hours remaining

Professional Associations

LA PE # 31801, NFPA Member, ASHRAE Member, American Military Engineers

Experience

Mr. Mekari serves as a Principal of Pivotal Engineering and the Engineering Manager in charge of all of the electrical engineering

projects. He has over 28 years of experience in designing and installing electrical distribution systems for public, commercial, and industrial facilities such as schools, fire stations, justice centers, police stations, street lights, lift stations, PLC automations and thermal reactors. He also designed/built electrical installations throughout the US and worldwide. Mr. Mekari has designed over 100 electrical systems and will be instrumental in the overall electrical design and project management.

James Amodeo, PE
Senior Mechanical Engineer

Education

B.S. Mechanical Engineering, S.U.N.Y at Stony Brook, Stony Brook, New York

Professional Associations

Louisiana / Mechanical / 36489

Colorado / Mechanical / 36652

Experience

Mr. Amodeo serves as the Senior Mechanical Engineer for Pivotal Engineering. He has over 18 years of experience in designing and specifying mechanical and plumbing systems for municipal, industrial, commercial, process and manufacturing applications of all magnitudes. Mr. Amide is an ASHRAE Member, NSPE Member, and ASME Member.

Kepal Patel, EI
Electrical Engineer Intern

Education

B.S. Electrical Engineering/University of New Orleans

Professional Associations

LA EI # 34453 / Electrical Engineering

Experience

Mr. Patel serves as an Electrical Designer for Pivotal Engineering. Mr. Patel designing experience includes CADD work, generally to show the pole location, laying out circuit design from the power source to individual poles, type of foundation used, type of fixture used and include its specifications. Currently, he is working on several JP streetlight projects and his role requires Voltage Drop Calculations, Conduit sizes, Wire sizes, grounding and bonding etc. and thus determine what kind of electrical components would be required for the installations.

Irish Jones
Electrical Designer

Education

5 years of college in Electrical Engineering – University of Texas at Arlington

Experience

Mr. Jones serves as the senior electrical designer of Pivotal Engineering. He has over 40 years of experience in designing electrical installations (power distributions) for industrial and commercial applications of all magnitudes. He obtained his first-Class A electrical license in 1967 in Georgia. Being an electrical contractor for over 40 years, Mr. Jones has developed an extensive experience in not only designing and laying out electrical designs, but also in supervising the installations in the construction phase. His expertise allows the team to provide the

BEST and MOST ECONOMICAL Electrical Design for any facility. Due to his experience as an electrician and a contractor, Pivotal will not need to depend on the In-plant electrician while conducting the electrical components field investigations.

Geotechnical Engineering

Chad M. Poché, P.E. (Gulf South) **Geotechnical Engineer**

Education

M.S., 1998, Civil Engineering, University of New Orleans

B.S., 1993, Civil Engineering, Louisiana State University

Professional Associations

1998, Civil Engineer, Louisiana No. 27667

2002, Civil Engineer, Mississippi No. 15405

Experience

Mr. Poché is the Vice President, co-founder, and partner in Gulf South. He has been a consulting geotechnical engineer for nearly 30 years in South Louisiana, working on traditional and unique geotechnical engineering projects (shallow and deep foundation design, slope stability, pavement design, etc.). Mr. Poché has also provided construction oversight for virtually every type of earthwork related project. He has been the geotechnical engineer of record for thousands of projects throughout his career. Further, Mr. Poché is a Member-at-Large of the American Council of Engineering Companies of Louisiana. Mr. Poché's experience includes the development of appropriate scopes of work and proposals for a broad range of projects; planning and coordinating analyses; preparing technical reports; foundation and geotechnical engineering design; construction

recommendations; Miss. River facility permitting; managing personnel and office operations, and; serving as an Expert Witness. Mr. Poché has logged soil borings; overseen the installation of ground water monitoring wells, piezometers, and inclinometers; overseen and evaluated pile load tests; overseen, performed, and evaluated dynamic pile testing (PDA and PIT); performed CMT field testing and inspection; and performed laboratory testing.

Blake E. Vutera, PE (Gulf South) **Geotechnical Engineer**

Education

M.S., 2018, Civil Engineering, University of New Orleans

Certification - Coastal Engineering, 2018, University of New Orleans

B.S., 2008, Civil Engineering, Louisiana State University

Professional Associations

2013, Civil Engineer, Louisiana, No. 38607

2018, Professional Engineer, Texas No. 129410

Experience

Mr. Vutera serves as Gulf South's Engineering Manager and is based in Gulf South's Kenner, LA office. His experience with the firm includes daily work on geotechnical engineering projects as well as managing all geotechnical investigations and providing assistance with laboratory testing and construction materials testing and inspection. Engineering analyses that Mr. Vutera routinely performs include: shallow and deep foundations, slope stability analyses, settlement estimates, and pavement design. He is responsible for engineering design, report preparation, proposal preparation, personnel management, project management, and client interaction. Mr.

Vutera's field work consists of borehole logging; installation of ground water monitoring wells, piezometers, and inclinometers; overseen and evaluated pile load tests; overseen, performed, and evaluated dynamic pile testing (PDA and PIT); pavement coring; nuclear field density tests; and hand augers. Mr. Vutera has been the geotechnical engineer of record for hundreds of projects throughout his career.

Land Surveying

Ralph Fontcuberta Jr, PLS (BFM) **Professional Land Surveyor**

Education

Coursework, Building, Delgado College, New Orleans

Coursework, Math, University of New Orleans

Professional Associations

1974, Professional Land Surveyor (Louisiana Lic. No. 4329)

1974, Professional Land Surveyor (Mississippi Lic. No. 1633)

Experience

Ralph P. Fontcuberta, Jr., PLS has provided services on an almost incalculable number of surveying projects throughout southeastern Louisiana in the past half century and has been a registered Professional Land Surveyor (PLS) since 1974. He is thoroughly knowledgeable in all aspects of surveying: topographic, hydrographic, boundary, right-of-way surveying, and all facets thereof. He has provided surveying services for residential, plant, and industrial layout projects, ranging from small private lots & buildings to multi-million-dollar programs, including the New Orleans FEMA Streets/Recovery Roads Program. Since the beginning of his career, his work has entailed

computations, drafting, and field work for various industrial, commercial, municipal, and private clients. Projects have included topographic surveying needed for a wide variety of engineering, architectural, construction, and other related endeavors. This work has included projects for numerous branches of virtually every regional city/parish/town government, multiple State agencies, Federal agencies, private/public companies, and numerous other public/private entities.

John Philip Thayer (BFM) **Field Operations Supervisor**

Education

B.S., 2007, Physical Education, Trevecca Nazarene University

Professional Associations

Professional Land Surveyor Registration in process, State of Louisiana

Experience

Mr. Thayer is a Field Operations Supervisor with considerable experience in field surveying services, including ALTA/as-built surveying, construction layout, boundary, topographic, cross-sections, GPS use, and numerous other surveying types.

Section 4 - Team Profile & Experience

4.1 Team Profile

Pivotal Engineering

Pivotal is a full-service engineering design firm based in New Orleans, Louisiana. Pivotal has established a reputation for providing superior service to its clients and delivering quality work on time and within budget. Pivotal's principals and staff have in excess of 200 years of combined experience in architectural, civil, mechanical, electrical, structural and environmental engineering as well as construction management, construction inspection and program / project management for both public and private entities across the Gulf South Region.

Pivotal Engineering is currently providing engineering and management services to many municipalities and state agencies in the region including; the City of New Orleans, Jefferson Parish, the City of Shreveport, St. Charles Parish, and St. John the Baptist Parish. These services have also been provided to private clients such as Entergy, Waste Management, and private developers. Pivotal Engineering has in depth understanding of procedures and regulations for local, state, and federal governmental agencies.

Pivotal has worked with private developers and government agencies to help deal with the challenges of economic revitalization, landfill development and brownfield reclamation in order to accommodate the growing infrastructure needs of urban cities. Our primary focus begins with assisting public sector agencies and private development companies to effectively plan and accommodate growth, in an environmentally sustainable manner. We have assisted urban renewal projects throughout all stages of project development including: analyzing zoning issues, planning commission interaction, conducting

public hearings, and fostering community visioning and support.

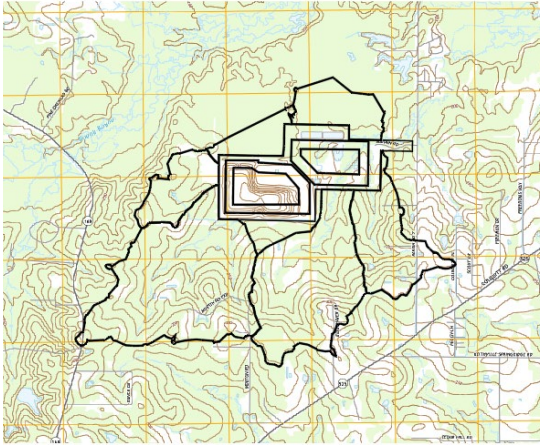
Pivotal Engineering, LLC is conveniently located in the center of New Orleans. Since its inception, Pivotal's main office of operations has been at 1515 Poydras St. Suite 1150, New Orleans, LA. Work assigned to Pivotal will be performed from the main office.

4.2 Experience with similar projects:

Pivotal Engineering's team includes senior civil and environmental engineers and technicians with extensive experience and excellence in managing projects from cradle to grave while providing value engineering, which saved our clients hundreds of thousands of dollars. Our staff was essential in helping metropolitan New Orleans in expediting its post Katrina recovery by handling and completing over 50 critical City, Parish and/or FEMA funded projects. The current staff of Pivotal has extensive experience managing a variety of complex projects from conception to construction.

H&H Modeling and Design of 682-acre Drainage Catchment Basin, City of Shreveport (Pivotal)

In support of comprehensive drainage system revisions, Pivotal performed hydraulic and hydrologic (H&H) modeling for a 682-acre catchment area. Pivotal staff used Autodesk® Storm and Sanitary Analysis to analyze each subbasin. This analysis was the basis for designing improvements to an existing drainage system.



CADL H&H Modeling and Design of 200-acre Drainage Catchment Area (Pivotal)

In support of environmental compliance activities, Pivotal designed a drainage system for a 200-acre environmental facility, located in Westlake, Louisiana. Pivotal staff were able to identify areas of deficiency within the current design and to re-design the drainage system to meet expected flowrates. Pivotal staff used Autodesk® Storm and Sanitary Analysis to analyze each subbasin with the drainage catchment area.

Coastal Use Permitting for Dredge Activities (Pivotal)

On behalf of Entergy Louisiana, Pivotal Engineering has applied for and received numerous coastal use permits (CUPs) for Mississippi River dredging activities. Pivotal completed the permit application, managed surveying activities and developed the drawings set. Throughout the permitting process, Pivotal coordinated with all stakeholders to ensure that all individual requirements were met and that each phase of the approval process was kept moving forward. Stakeholders included Louisiana Department of Natural Resources, United State Army Corps of Engineers, Coastal Protection Restoration Authority and Pontchartrain Levee Board.

Beneficial Use of Dredged Material, Westlake, LA (Pivotal)

Pivotal conducted soil sampling of dredged material. Detections were compared to RECAP standards and

recommendations for beneficial use of material was submitted to the client via a formal report. On behalf of the client, Pivotal prepared the beneficial use application and was successful in obtaining approval for on-site reuse of the material.

NASA Solar Station, Michoud, LA (Pivotal)

Prior to installing the 200-acre solar station, Pivotal was retained to perform multi-media sampling and risk-based analysis of the layout area. Pivotal developed a sampling and analysis plan based on prior reports and investigations. Pivotal performed soil and groundwater sampling and compared all detections to the developed risk-based standards.

Ingalls Shipbuilding, Avondale Mainyard, Avondale, LA (Pivotal)

Pivotal performed Environmental Site Assessment of 250-acre ship manufacturing facility. Reviewed historical records dating to 1890s and operational data from 1930s. Team conducted details site inspections to locate prudential environmental concerns. The objective of this project is to conduct an Environmental Site Assessment (ESA) of the Property in accordance with the “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process,” ASTM Standard E1527-13 (2013), in part to establish the CERCLA “Innocent Land Owner Defense” and whether any potential Recognized Environmental Conditions which can cause a “Business Environmental Risk” (BER) (as defined in ASTM Standard E1527-13) that could adversely impact the Property. Use of ASTM Standard E1527-13 intends to constitute “All Appropriate Inquiries” for establishing Land Owner Liability Protection under the Brownfield Amendments.

Entergy Corporation Sterlington Generation Facility, Sterlington, LA (Pivotal)

Pivotal prepared risk assessment for closure of wastewater ponds approved by Louisiana Department of Environmental Quality (LDEQ) for “No Further Action.”

Lead Contaminated Soil at Industrial Facility, Baton Rouge, LA (Pivotal)

Due to concerns of lead contamination near an existing water tower, Pivotal was retained to delineate and evaluate lead concentrations in soil samples. Pivotal performed soil sampling and determined the extent of contamination. CAD and GIS were used to produce modeling outputs of the extent of contamination.

RECAP Evaluation for Closure Activities at Permitted Surface Impoundments, Michoud, LA (Pivotal)

Pivotal generated a RECAP Evaluation of constituent detections at two LDEQ-permitted surface impoundments at an industrial site. Pivotal coordinated with LDEQ representatives to ensure timely approval of the report. The approved report allowed the closure activities to proceed on schedule.

Attachment A

Licenses

Louisiana Professional Engineering and Land Surveying Board

Hereby Certifies that

Pivotal Engineering LLC

*has complied with the regulation of this Board and is authorized
to provide or to offer to provide engineering services in the State of
Louisiana contingent upon payment of the annual renewal fee.*

Baton Rouge, Louisiana · 12/20/2012



License Number 5213

Michael J. Davis

Jane E. Bawie *Chairman*

Secretary

Attachment B


Key Staff Licenses



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 1/25/2024 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Mr. Avinash Mehta
1201 Giuffrias Avenue
Metairie, Louisiana 70001

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LPELS)	
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
Mr. Avinash Mehta		
License/Certificate Type - Number	Expiration Date	
PE.0035100	03/31/2024	
Status: Active		
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>		

Fold Here

Cut Here

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer


All information provided by LPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LPELS.



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 1/25/2024 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Mr. Yoseph Yemane Shifare
63 Eugenie Court
New Orleans, Louisiana 70131

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LPELS)	
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
Mr. Yoseph Yemane Shifare		
License/Certificate Type - Number	Expiration Date	
PE.0042747	03/31/2025	
Status: Active		
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>		

Fold Here

Cut Here

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer


All information provided by LPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LPELS.



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 1/25/2024 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Mr. Bassam Abdallah Mekari
1515 Poydras Street, Suite 1875
New Orleans, Louisiana 70112

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LPELS)	
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
Mr. Bassam Abdallah Mekari		
License/Certificate Type - Number	Expiration Date	
PE.0031801	09/30/2024	
Status: Active		
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>		

Fold Here

Cut Here

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer


All information provided by LPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LPELS.



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 1/25/2024 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Mr. Tarek Elnaggar
192 Forest Oaks Drive
New Orleans, Louisiana 70131

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LPELS)	
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
Mr. Tarek Elnaggar		
License/Certificate Type - Number	Expiration Date	
PE.0023832	03/31/2025	
Status: Active		
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>		

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer


All information provided by LPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LPELS.



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 1/25/2024 the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. James Edward Amodeo
1511 Dublin Street
New Orleans, Louisiana 70118

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)	
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
Mr. James Edward Amodeo		
License/Certificate Type - Number	Expiration Date	
PE.0036489	03/31/2024	
Status: Active		
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>		

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer

All information provided by LAPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LAPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LAPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LAPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LAPELS.