



CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

**SOQ 24-026 Professional Electrical Engineering Services for
Miscellaneous Street Lighting Projects and Other Electrical Related Work
throughout Jefferson Parish**
Jefferson Parish Government

Project documents obtained from www.CentralBidding.com

22-Aug-2024 12:46:48 PM

Technical Evaluation Committee (TEC) Questionnaire

Instructions

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert “N/A” or “None” if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ No. 24-026 Resolution #144425

Seeking Individuals or Firms to Provide Electrical Engineering on an As Needed Basis

B. Firm Name & Address:

M S Benbow & Associates- Consulting Engineers

Two Lakeway- 3850 N. Causeway Boulevard

Suite 600

Metairie, LA 70002

504-832-2000

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:

Leo L. Holzenthal, Jr., P.E.

(504) 836-8902 (office)

(504) 669-6619 (cell)

llholzen@MSBenbow.com

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.

Gregory Pier, P.E.

(504)836-8932 (office)

(504)352-0703 (cell)

GPier@MSBenbow.com

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

9 Administrative Architects (Licensed) ___ Chemical Engineers ___ Civil Engineers ___ Construction Inspectors ___ Ecologists 34 Electrical Engineers ___ Engineer Intern ___ Professional Land Surveyors	4 Estimators ___ Geologists ___ Geotechnical Engineers ___ Interior Designers ___ Landscape Architects ___ Land Surveyor ___ Mechanical Engineers ___ Environmental Engineers	4 Specification Writers ___ Structural Engineers ___ Graduate Engineers 5 Project Managers 1 Clerical ___ Grant/Funding Specialist ___ Sanitary Engineers 49 Others 107 TOTAL
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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

2. 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. Eustis Engineering 3011 28 th Street Metairie, LA 70002	Geotechnical Services	Yes
2. Specialized Engineering 847 Galvez St Ste 100-A Mandeville, LA 70448	Civil Engineering	Yes
3. N/A		

J. Please specify the total number of support personnel that may assist in the completion of this Project:
 We estimate 6 individuals will be needed to complete the Electrical Engineering Services associated with projects under this advertisement. This includes a junior and senior engineer, clerical, and project management. More employees can be added as necessary to complete 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. 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:

Gregory Pier, P.E. / Senior Electrical Engineer.

Project Assignment:

Lead Electrical Design Engineer and Project Manager

Name of Firm with which associated:

M S Benbow & Associates

Years' experience with this Firm:

2

Education: Degree(s)/Year/Specialization:

Bachelors of Science / 2008 / Electrical Engineering

Active registration: Year first registered/discipline:

Louisiana Professional Engineer: 2022/Electrical Engineering
Alabama Professional Engineer: 2022/Electrical Engineering
Mississippi Professional Engineer: 2022/Electrical Engineering

Other experience and qualifications relevant to the proposed Project:

Accreditations / Affiliations / Certifications

Member: Louisiana Engineering Society

Member: IEEE

Member: NFPA

Board Member: Electrical Association of New Orleans, Vice President & Engineering Representative

Professional Experience

Mr. Pier was the lead electrical design engineer, engineering project manager, and construction assistance engineering representative for multiple street lighting projects throughout Jefferson Parish while at Infinity Engineering from 2012 to 2022. He has an excellent track record working with Daloss Falgou at the Dept of Street Lighting and has a history of providing Jefferson Parish with high level engineering designs on schedule and without change orders from contractors.

Gregory Pier, P.E., is a Senior Electrical Engineer for MS Benbow and Associates, a professional consulting engineering corporation in Metairie, Louisiana. Gregory has over 15 years' experience as a consulting electrical

TEC Professional Services Questionnaire

engineer for various oil & gas midstream and downstream facilities, petrochemical refineries, bulk handling and storage facilities, airports and heliports, and architectural and municipal clients.

As a senior electrical engineer, Gregory is responsible for developing electrical installation packages, coordinating with clients to determine the optimal installations required for each project, assisting with assembling project plans and specifications, providing construction cost estimates, and managing projects to completion.

Along with designing construction packages, Gregory also has extensive experience with the private and municipal bidding process, coordinating with contractors during the construction phase to ensure that the projects conform to the specifications, and project closeout.

Areas of specialty include the electrical design for municipal and commercial street and area lighting, backup/emergency generator installations, commercial and municipal building design to include power distribution, lighting, grounding, telecom and fire alarm equipment, duct banks and manholes, and other low voltage designs associated with commercial building designs.

Mr. Pier has worked with various municipalities in the Greater New Orleans region including the City of New Orleans, Jefferson, St. John the Baptist, Ascension, St. Tammany St. Bernard, and Tangipahoa Parishes.

For Jefferson Parish, Mr. Pier has worked extensively with the Capital Projects Dept and the Street Lighting Division. Previous street lighting projects designed by Mr. Pier for Jefferson Parish include:

- Glenwood Dr. Street Lighting
- Colony Pl Street Lighting
- Vintage Dr. Walking Trail Lighting
- Canal Street Linear Park Lighting
- Airline HWY Street Lighting
- Causeway Blvd Street Lighting
- Bainbridge Ave Street Lighting

Other previous lighting projects that Mr. Pier has designed which are associated with this submittal include:

- City of New Orleans: Canal Street and City Park Ave RTA Streetcar and Bus Station
- City of New Orleans: Galvez Street Lighting
- City of New Orleans: Rampart Street Lighting
- City of New Orleans: Florida – Desire Center Building interior, façade, pathway, and parking lot lighting
- City of New Orleans: Criminal Evidence Processing Complex interior, pathway, and parking lot lighting
- RTA Park ‘N Ride Facility Parking Lot Lighting
- St. John the Baptist Parish: Regala Park Lighting and Power Distribution
- Dillard University: Pathway and Area Lighting
- Port of Gulfport: MARSEC Security Lighting

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Sid A Gaudet, P.E., / Engineering and Design Manager – Louisiana Divison
Project Assignment:
Electrical Department Manager
Name of Firm with which associated:
M S Benbow & Associates
Years' experience with this Firm:
5
Education: Degree(s)/Year/Specialization:
Bachelors of Science / 2006 / Electrical Engineering
Active registration: Year first registered/discipline:
Louisiana Professional Engineer: 2011/Electrical Engineering Texas Professional Engineer: 2012/Electrical Engineering
Other experience and qualifications relevant to the proposed Project:
<p>Sid Gaudet IV, P.E., is the Engineering and Design Manager for the Louisiana Division of M S Benbow & Associates. Mr Gaudet is also a Sr. Electrical Engineer for MS Benbow and Associates and has over 15 years' experience as a consulting electrical engineer for various oil & gas, power utility, petrochemical and municipal clients. Sid has worked with various municipalities and has led the electrical engineering efforts for the recent modifications at the New Orleans Sewerage and Water Board.</p> <p>As the Engineering Manager, Sid plays a crucial role in overseeing the project execution from the technical departments. He provides the engineering teams at MSB with leadership and technical guidance to provide excellent products to our clients as dictated by their schedule requests. His mentorship and commitment to developing our engineering department skillset keeps his hands actively in the designs that our engineering team produces.</p>

TEC Professional Services Questionnaire

As a senior electrical engineer, Sid is also responsible for overseeing electrical designs, leading project teams, providing technical advice to clients, managing projects and producing quality engineering design deliverables. Past project experience includes engineering design and support for power generation, power distribution (high voltage, medium voltage and low voltage), fire and safety systems, power stability studies and arc flash assessments/mitigation.

Notable projects include:

- **New Orleans Sewerage & Water Board – Generator and Power Plant Designs**

Project manager and lead electrical engineer for detailed design of generator refurbishment project for the S&WB in New Orleans, La. Participated on committee designated by the city mayor to assist with future infrastructure planning. Project designs include static frequency changer design, generator exciter replacement, governor and voltage regulator replacement, auxiliary MCC replacement, load bank addition, addition of 22 emergency generators at pump stations, integration of 5 new diesel generators at main generation facility and coordination with multiple vendors for equipment specification for generators, MCCs and transformers. Provided testing and startup support for all new installations. Participated in root cause failure analysis for switchgear failure and assisted with infrastructure inspections and upgrade recommendations.

- **CLECO – Big Cajun II Arc Flash/Short Circuit Mitigation Project**

Lead project and electrical engineer for the design and execution of the Arc Flash / Short Circuit Mitigation Project for CLECO's Big Cajun II power generation facility in New Roads, La. Provided project management, client support/consultation, preliminary estimation and detailed design engineering for the selected mitigation options to reduce arc flash energies and increase device short circuit ratings. Project scope included ETAP model validation and revisions, temporary arc flash mitigation settings, preliminary design, electrical equipment specification developments, bid reviews, detailed design engineering, and construction/startup support.

- **Bayer (Monsanto) River Pump MCC Replacement**

MSB was the engineering firm responsible for design and execution of the River Pump MCC Replacement Project for Bayer (Monsanto) in Luling, La. Provided project management, client support/consultation, and detailed design engineering for the replacement and relocation of the river pump MCCs for the Luling plant. Project scope included obtaining permits from the AHJ, detailed design engineering, providing cost estimates and construction/startup support.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Leo L. Holzenthal, JR., P.E. / President and CEO
Project Assignment:
Project Principal
Name of Firm with which associated:
M S Benbow & Associates
Years' experience with this Firm:
39
Education: Degree(s)/Year/Specialization:
Masters of Science in Engineering / 1984 / Electrical and Mechanical Bachelor of Science / 1979 / Electrical Engineering
Active registration: Year first registered/discipline:
Louisiana: 1988/Electrical Engineer Licensed in many other states as both an Electrical Engineer and a Control Systems Engineer. <u>Information on other states can be sent upon request.</u>
Other experience and qualifications relevant to the proposed Project:
Professional Associations American Society of Engineering Educators (ASEE) Institute of Electrical and Electronics Engineers (IEEE) Louisiana Engineering Society (LES) Chamber of Commerce, New Orleans and the River Region Texas Society of Professional Engineers (TSPE) Arkansas Society of Professional Engineers (ASPE) National Society of Professional Engineers (NSPE) Louisiana Chemical Industry Alliance (LCIA) Professional Experience Leo Holzenthal is the President & CEO of M S Benbow & Associates and is responsible for managing the day-to-day operations while ensuring client expectations are exceeded at every turn. Leo has more than 30 years of experience in Electrical, Power, Control Systems, and Telecommunications Engineering and has managed countless projects in all phases, from design and documentation to project execution. Having joined the company in 1984, Leo takes a hands-on approach to ensuring quality control and providing top-notch engineering services. He holds a Bachelor of Science in Electrical Engineering from the University of New Orleans, as well as Master of Science degrees in both Electrical Engineering and Mechanical Engineering from the University of Texas at Austin. He is certified as a Registered Professional Engineer in more than a dozen states, including Louisiana, Texas, Mississippi, Alabama and Florida. As experienced expert witness, he was awarded status as a Fellow of the American College of Forensic Examiners Institute.

TEC Professional Services Questionnaire

Professional Experience, Continued

In addition to his executive responsibilities at MSB, Leo is an adjunct professor at the University of New Orleans College of Engineering and has lectured at numerous universities and conferences on control systems design and special topics in telecommunications. He received the 2015 James M. Todd Technological Accomplishment Award from the Louisiana Engineering Society. Below are examples of projects that Mr. Holzenthal has executed.

- **COPS FY2003 City of New Orleans Interoperable Communications Technology Grant** – Project Manager for \$7.3 MM DOJ Grant program to build communications system for first responders in four parish region of Louisiana. See project below.
- **Region 1 Interoperable Communications Project** – Project Manager and lead engineer for four parish two-way trunked radio system project. The System was implemented with Motorola Astro25 All-digital equipment. System consisted of one three-site simulcast cell, one two-cell simulcast cell, 6 IntelliRepeater sites, and 12 dispatch centers with a total of 59 console positions. System deployed with approximately 10,000 subscriber units on the air. Total project cost approximately \$25MM.
- **Mobile Wireless Helicopter Video** – Deployed mobile point-to-multipoint aerial video system for helicopter to transmit live video into a public safety WAN.
- **Township of Folsom Wireless Telecom Expert** – Tower siting issues and rights of incumbent government.
- **Gretna Comm Tower Failure Analysis** – 400 foot free standing tower failure investigation and root cause analysis.
- **Dallas-Fort Worth International Airport Distributed Antenna System Project** – Project Manager and Lead Engineer for project to develop, design, and build one of the first and largest neutral host in-building distributed antenna systems in the US. This is a system that delivers wireless telephone carrier signals into public buildings at DFW Airport to provide an excellent grade of service for their customers. Phase 1 of the project included the development, design and construction of this system for Terminals A, B, C and E. A base station equipment site was developed in a high-rise parking lot building. MSB&A designed floor plans and all necessary utilities for this installation. This system provides wireless telephone coverage to an area approximately 3 million square feet inside the terminal buildings. Phase 2 of the project consisted of the new Terminal D facility which includes the Grand Hyatt Hotel and the Terminal D Parking Garage. This facility added 3.5 million square feet to the coverage of the system.
- **Houston Bush Intercontinental Airport Distributed Antenna System Project** - Project Manager and Lead Engineer for project to develop, design, and build neutral host in-building distributed antenna systems. This is a system that delivers wireless telephone carrier signals into public buildings at IAH Airport to provide an excellent grade of service for their customers
- **U. S. Army Corps of Engineers, Wireless Telecom Expert** - Investigated job-site problems and concerns, later shown to be related to AM station detuning and parasitic coupling with construction equipment. Recommended course of action and preventative measures for future planning.
- **Ernest N. Morial New Orleans Convention Center Distributed Antenna System** Project Manager and Client (owner) engineer for a multi-band In-Building RF coverage system, utilizing state-of-the-art equipment and technologies. Project also included contract negotiations with all wireless carriers, and construction of a 4000 square foot equipment structure within the facility. Continuing engagement.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
N/A
Project Assignment:
N/A
Name of Firm with which associated:
N/A
Years' experience with this Firm:
N/A
Education: Degree(s)/Year/Specialization:
N/A
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
N/A

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
N/A
Project Assignment:
N/A
Name of Firm with which associated:
N/A
Years' experience with this Firm:
N/A
Education: Degree(s)/Year/Specialization:
N/A
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
N/A

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:	
JPPSS 3088 Wireless Upgrade Project Jefferson Parish, LA Jefferson Parish Public School System, Administration Building Marrero, LA (504) 349-7600	MSB Subcontracted to Universal Data Incorporated to provide installation of Ethernet cabling in accordance with BICSI Standards and manage construction of new high speed WiFi systems at all JPPSS Schools.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2010	\$3,000,000	\$1,000,000

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
LA Region One Interoperable Communication System Jefferson Parish, JPSO Sheriff Newell Normand (504) 363-5725	MSB provided design engineering and project management for the procurement, installation, and commissioning of a Regional two-way digital radio system for the seven Parish LA Region One	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2010	\$3,000,000	\$1,000,000

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
Jefferson Parish Arc Flash Training Wayne Jones "Human Resources" (504) 736-6156 (office) wjones@jeffparish.net	Provide live instructor led training for all JP employees exposed to electrical arc flash hazards.	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
November 2020	\$7,500	\$7,500

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
NOLA Sewerage and Water Board CP-1370A Switchgear 8800 S Claiborne Ave, New Orleans, LA 70118 New Orleans Louisiana, Celso Antunez "Electrical Engineer" (504) 865-0456 (office) cantunez@swbno.org	Design and implementation of a new 60Hz outdoor switchgear substation to integrate the T-6 generator and future industrial substation in existing 60Hz distribution system. Assisted in procurement and specification development. Performed detailed design of the system.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
March 2023	\$4,000,000	\$4,000,000

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
NOLA Sewerage and Water Board CP-1417 SFC Procurement 8800 S Claiborne Ave, New Orleans, LA 70118 New Orleans Louisiana, Celso Antunez "Electrical Engineer" (504) 865-0456 (office) cantunez@swbno.org	Design of 3 new Static Frequency Changers for the new Western Power Complex. Provided technical support, calculations and specification support for the new VFDs, switchgear and auxiliary power and control systems. MSB served as the integrator for multiple vendors and technical lead for implementation into the existing power systems.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
July 2024	\$31,500,000	\$15,000,000

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Electrical Infrastructure Replacement 47433 Enterprise Products, Sorrento Ben Bernard "Manager of Field Engineering" (225-) 675-2513 (office) bmbarnard@eprod.com	Detailed design and procurement support to replace the primary electrical distribution system for the entire facility. Detailed cut-over packages for tie-in of existing plant equipment. Provided implementation and cutover planning for execution of the project and associated project management.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
April 2019	\$7,200,000	\$7,200,000

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

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	N/A
2. N/A	N/A	N/A
3. N/A	N/A	N/A
4. N/A	N/A	N/A

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

N/A

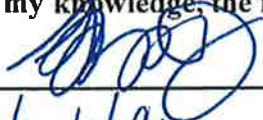
O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature: _____

Print Name: _____

Title: _____

Date: _____


President/CEO

Leo L. Holzenthal, Jr.

8/22/24

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ 24-026, Resolution No. 144425

Professional Electrical Engineering Services for Miscellaneous Street Lighting Projects and Other Electrical Related Work throughout Jefferson Parish

B. Firm Name & Address:

Eustis Engineering L.L.C.

3011 28th Street, Metairie, Louisiana 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:

Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / gsanders@eustiseng.com

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.

Sean G. Walsh, P.E. / Vice President & Engineering Manager / 504-834-0157 / swalsh@eustiseng.com

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>2</u> Geologists	<u> </u> Structural Engineers
<u> </u> Chemical Engineers	<u>17</u> Geotechnical Engineers	<u>3</u> Graduate Engineers
<u> </u> Civil Engineers	<u> </u> Interior Designers	<u> </u> Project Managers
<u> </u> Construction Inspectors	<u> </u> Landscape Architects	<u>11</u> Clerical
<u> </u> Ecologists	<u> </u> Land Surveyor	<u> </u> Grant/Funding Specialist
<u> </u> Electrical Engineers	<u> </u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u>5</u> Engineer Intern	<u> </u> Environmental Engineers	<u>47</u> Other
<u> </u> Professional Land Surveyors		<u>92</u> TOTAL

F. Is this submittal is 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. Not applicable.

2.

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. Not Applicable.		
2.		
3.		

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

We estimate **16** individuals will be needed to complete the geotechnical services associated with projects under this advertisement. This includes a three-member drill crew as well as laboratory, clerical, and engineering staff. More employees can be added, as necessary, to complete any 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., 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:

Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)

Project Assignment:

Engineering Manager

Name of Firm with which Associated:

Eustis Engineering L.L.C.

Years' Experience with This Firm:

11

Education: Degree(s)/Year/Specialization:

Master of Science / 2010 / Civil Engineering

Bachelor of Science / 2007 / Civil Engineering

Active Registration: Year First Registered/Discipline:

Louisiana: 2013 / Civil Engineering

Other Experience and Qualifications Relevant to the Proposed Project:

Accreditations / Affiliations / Certifications

Member: American Society of Civil Engineers

Member: Chi Epsilon National Society of Civil Engineers

Member: Engineers Without Borders

Graduate: New Orleans Regional Leadership Institute, 2017

Professional Experience

For his first five years after graduation, Mr. Sean G. Walsh was a Project Engineer on numerous projects in the New York and New Orleans metropolitan areas where he gained experience in civil, geotechnical, and geo-environmental engineering projects for a variety of public and private clients.

Since joining Eustis Engineering in 2012 as a Project Engineer, Mr. Walsh has been responsible for developing and managing engineering package preparations (e.g., engineering design and analysis, reporting, development of construction and permit drawings, contract specifications, cost estimates, and design reporting) for a diverse range of design and analysis projects, including deep foundations, excavation support systems, utility foundations, slope stabilization, solid waste closure systems, levee inspection/safety, and seepage modeling.

Mr. Walsh was promoted to Project Manager in 2017. Mr. Walsh is also a graduate of the 2017 New Orleans Regional Leadership Institute (NORLI), a one-year training program designed to help shape community leaders.

During his employment with Eustis Engineering, Mr. Walsh has provided engineering services on more than 400 projects. Mr. Walsh has risen to the level of Vice President and Engineering Manager, in which he is responsible for personnel resource allocation, the overall engineering schedule, and execution of engineering services. Mr. Walsh also functions as a mentor to the engineering staff.

A large portion of Mr. Walsh's experience, before and after joining Eustis Engineering, involved development of design and construction recommendations associated with flood protection systems in southeastern Louisiana. Mr. Walsh has served as the project engineer and project manager responsible for the development and implementation of

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:

Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)

geotechnical exploration programs; development of soil testing laboratory programs; and interpretation of the results to evaluate strength, compressibility, and general soil characterization. Mr. Walsh used these data for geotechnical designs comprising pile capacity curves; bearing capacity analyses; cantilever retaining analyses; anchored retaining wall analyses; temporary retaining structure design; time-settlement projections for earthen levees with lift schedules; soil pressure profiles; structural and earthen levee under seepage analyses; levee and bank stability by the Spencer's Method and the Method of Planes; reinforced embankment design; stability analyses of flood protection walls (e.g., T-walls, I-walls, L-walls, and braced 'A-Frame' walls); downdrag and settlement analyses; settlement induced bending moments (SIBM) in foundation piles; piping analyses; uplift analyses; heave analyses; three-dimensional modeling of fill and structural load placements for predictions of time-rate settlements of foundation systems; and numerical modeling of soil-structure interaction (SSI) of flood protection structures by the finite element method (FEM).

Mr. Walsh has also worked on many local government projects in towns and cities including New Orleans, Golden Meadow, and Kentwood; numerous projects in Jefferson, Orleans, St. Bernard, St. Charles, and Plaquemines Parishes; several Port Commissions (e.g., Baton Rouge, New Orleans, South Louisiana); the Sewerage & Water Board of New Orleans; etc.

Regardless of the types of projects engineered for these agencies, his responsibilities have remained the same, namely defining the project philosophy; developing and maintaining the schedule; providing status reports to clients; controlling expenditures; overseeing project personnel; and reviewing the project design for compliance with engineering principles, company standards, and client requirements. He is hands-on in coordinating activities concerned with technical developments and in resolving engineering design/test problems.

Mr. Walsh's skills over the past 16 years have developed exponentially with the variety of projects that have crossed his desk. Regarding this submittal, Mr. Walsh has been directly involved with the following projects:

- **Jefferson Parish** – Proposed Pump Station, Blanchard Lane, Grand Isle, Louisiana (24160)
- **Jefferson Parish** – Jung and Falcone Lift Station Upgrades, New Sanitary Lift Station, Marrero, Louisiana (23819)
- **St. John the Baptist Parish** – Proposed Generator Installations at Seven Sites, St. John the Baptist Parish, Louisiana (22398)
- **Jefferson Parish** – Veterans Boulevard, North and South Pump Stations, Jefferson Parish, Louisiana (22024, 22631, 23396.00-.01, and 24426.00-.01)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Gwendolyn P. Sanders, P.E. / President
Project Assignment:
Project Principal
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
31
Education: Degree(s)/Year/Specialization:
Master of Science / 1992 / Engineering Bachelor of Science / 1990 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 1997 / Civil Engineering Mississippi: 2003 / Engineering Texas: 2020 / Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>Accreditations / Affiliations / Certifications</p> <p>Member: American Society of Civil Engineers: Chairman of the Geo-Institute – Louisiana Chapter and Associate Member of the ASCE Design of Foundations for Buildings and Other Structures Committee</p> <p>Member: Geoprofessional Business Association</p> <p>Member: Jefferson Chamber of Commerce</p> <p>Member: Louisiana Engineering Society</p> <p>Member: Pile Driving Contractors Association</p> <p>Member: Society of American Military Engineers</p> <p>Member: Tau Beta Pi, Louisiana Epsilon (National Engineering Society); Alumni Advisor to the University of New Orleans Student Chapter; and Member of Greater New Orleans Alumni Chapter</p> <p>Member: University of New Orleans: Department of Civil and Environmental Engineering Advisory Board</p> <p>Honoree: 2021 Class of New Orleans CityBusiness “Women of the Year”</p> <p>Honoree: 2017 Class of New Orleans CityBusiness “Women of the Year”</p> <p>Honoree: University of New Orleans 25 – Class of 2020 on Behalf of Eustis Engineering L.L.C.</p> <p>Honoree: ASCE Outstanding Engineer</p> <p>Certification: Transportation Worker Identification Credential (TWIC)</p> <p>Professional Experience</p> <p>Mrs. Gwendolyn P. Sanders began her professional career with Eustis Engineering in 1993. Over the past 31 years, she has worked her way up through the ranks of the engineering department including Associate Engineer, Project Engineer, Project Manager, and Engineering Manager. She has been on Eustis Engineering’s Board of Directors since 1997. In 2020, Mrs. Sanders became Eustis Engineering’s first woman President after previously serving as a Vice President and Executive Vice President. As President, she is responsible for day-to-day business operations including quality, safety, marketing, and long-term strategic growth. She also actively participates in the engineering design and review processes.</p> <p>Considering her experience with Eustis Engineering, a leading Gulf Coast geotechnical firm, Mrs. Sanders has extensive experience in soft soils and working on projects in coastal Louisiana. She has been directly and indirectly involved in numerous projects throughout the Gulf Coast region, particularly in the Greater New Orleans area. Mrs. Sanders has been involved in and managed every aspect of a geotechnical engineering project, namely developing appropriate</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Gwendolyn P. Sanders, P.E. / President

scopes of work for projects, planning and coordinating the field investigations, assigning laboratory testing, performing geotechnical engineering analyses, preparing detailed reports with engineering analyses and recommendations, reviewing reports prepared by other professionals, coordinating construction phase services, and consulting with clients. Much of her work experience consists of identifying soil properties, developing criteria for design of foundations, and determining an appropriate foundation to support the structure under consideration.

In 2017, Mrs. Sanders served as Program Advisor for the Deep Foundations Institute's 42nd annual conference. She has twice been named one of the 50 Women of the Year by New Orleans CityBusiness, first in 2017 and again in 2021. In 2022, she was recognized as the Outstanding Civil Engineer of the Year by both the New Orleans Branch and Louisiana Section of the American Society of Civil Engineers (ASCE). She is currently serving as an associate member of the ASCE Standards Committee for the Design of Foundations. She has a keen eye for detail and is a stickler for quality. Her work ethic, combined with her communication skills, translate to Mrs. Sanders' ability to deliver successful geotechnical engineering projects to her clients.

Over the years, Mrs. Sanders has been involved with more than 2,800 projects in some capacity, including the following contained within this submittal:

- **Jefferson Parish Sheriff's Office** - First District Station, 3620 Hessmer Avenue, Metairie, Louisiana (23114)
- **St. John The Baptist Parish** - Proposed Generator Installations at Seven Sites, St. John The Baptist Parish, Louisiana (22398)
- **St. John the Baptist Parish** - Ruddock Booster Station Nos. 1 and 3, Ruddock, Louisiana (22804)
- **Jefferson Parish** - Lift Station G8-2, Tolmas Drive and West Esplanade Avenue, Metairie, Louisiana (22583)
- **Hancock County** - Emergency Operations Center, MS Highway 603, Hancock County, Mississippi (G0086.00, .01, G0097)
- **Jefferson Parish Sheriff's Office** – Lafitte Rathburn Tower, Lafitte, Louisiana (L0415)
- **Jefferson Parish** - Veterans Boulevard, North and South Pump Stations, Jefferson Parish, Louisiana (22024, 22631, 23396.00, .01, 24426.00, .01)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Benjamin M. Cody, P.E. / Principal Engineer
Project Assignment:
Project Manager
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
22
Education: Degree(s)/Year/Specialization:
Master of Science / 1999 / Civil Engineering Bachelor of Science / 1996 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2002 / Civil Engineering Mississippi: 2007 / Engineering Texas: 2014 / Civil Engineering Florida: 2001 / Engineering Alabama: 2003 / Engineering Arkansas: 2014 / Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>Accreditations / Affiliations / Certifications</p> <p>Member: American Society of Civil Engineers (Past President of New Orleans Branch) Certification: Transportation Worker Identification Credential (TWIC)</p> <p>Professional Experience</p> <p>From 1993 to 1994, Mr. Benjamin M. Cody first worked with Eustis Engineering as a part-time laboratory soil technician while obtaining his undergraduate degree. After leaving Eustis Engineering in 1994, Mr. Cody worked as an engineering technician with the Sewerage & Water Board of New Orleans and as a student laboratory coordinator at Tulane University's Department of Civil Engineering. Mr. Cody also assisted in teaching the introductory soil mechanics laboratory sessions. For more than a year, he then worked as a graduate research assistant at Tulane University while pursuing his master's degree. At that time, he was responsible for the design, construction, and implementation of bench scale testing system in contaminated soil remediation.</p> <p>From 1998 until 2001, Mr. Cody worked for engineering firms in Florida. He performed such duties as soil evaluation and engineering recommendations for projects of varying sizes including multi-story structures, bridges, and roadways. He performed Phase I environmental site assessments as well as geotechnical sensor installation.</p> <p>In 2001, he returned to the New Orleans area and to Eustis Engineering as a Project Engineer. He now serves as a Principal Engineer with the firm. Since his return, Mr. Cody has performed a wide variety of engineering services including geotechnical project management, engineering design, engineering during construction, and dynamic pile testing. Private sector projects have varied from small private or commercial structures to multi-story high-rise structures, storage tanks, and other industrial facilities. Public projects have included roads and bridges, port facilities, government buildings and facilities, schools, and hurricane protection system improvements.</p> <p>Some of Mr. Cody's project experience, shown in this submittal, includes the following:</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Benjamin M. Cody, P.E. / Principal Engineer
<ul style="list-style-type: none">• Jefferson Parish – West Bank Central Warehouse Facility, LA Highway 18, Bridge City, Louisiana (22720.00, .01)• Jefferson Parish – Jung and Falcone Lift Station Upgrades, New Sanitary Sewer Lift Station, Marrero, Louisiana (23819)• Jefferson Parish – Veterans Boulevard, North and South Pump Stations, Jefferson Parish, Louisiana (22024, 22631, 23396.00, .01, 24426.00, .01)

PROJECT NO. 1	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p>Jefferson Parish West Bank Central Warehouse Facility LA Highway 18 Bridge City, Louisiana Eustis Engineering Project Nos. 22720 (.01)</p> <p>Jefferson Parish Through ECM Consultants, Inc. Suite 200 4409 Utica Street Metairie, Louisiana 70006 Chris Maniscalco @ 504-885-4080</p>	<p>As part of our geotechnical exploration, Eustis Engineering provided foundation analyses and recommendations for the proposed West Bank Central Warehouse Facility to be located north of LA Highway 18 in Bridge City, Louisiana.</p> <p>The project was to consist of two major structures: a warehouse and a poles/fixtures building, along with 21 parking spaces. The warehouse would have plan dimensions of 168' x 216'. The poles/fixtures building would have approximate plan dimensions of 50' x 110'. Approximately 3 feet of structural fill was anticipated to raise the site's grade to construction levels beneath the proposed structures. As an alternative to the structural fill, expanded polystyrene foam (EPS) blocks were being considered to raise the grade of the building footprints. Other project components included a new fenced laydown yard, parking areas and driveways, a loading dock on the northeastern corner of the warehouse, and underground drainage pipes (a maximum of 24 inches in diameter with an estimated maximum bearing depth of 4 feet).</p> <p>At the time of our field activities, the site was observed to be a generally level, open lot with an existing fence, fuel storage tanks, a fueling island, and minimal vegetation. Eustis Engineering drilled three undisturbed sample type soil test borings to depths of 60 to 100 feet and two auger borings to depths of 10 feet. Subsoil samples were obtained in the field using a 3-in. diameter thinwall Shelby tube sampling barrel. The samples were then tested in our laboratory to evaluate subsurface conditions and stratifications. Soil mechanics laboratory tests consisted of natural water content, unit weight, unconfined compression shear, and Atterberg liquid and plastic limits tests.</p> <p>Our engineering analyses and recommendations included:</p> <ul style="list-style-type: none"> • site preparation recommendations addressing the need for adequate drainage during and after construction; • appropriate clearing and stripping operations complying with Louisiana Standard Specifications; • subgrade preparation; • recommended structural fill and its compaction; • estimated fill settlement; • areal subsidence; • excavation bracing requirements in accordance with OSHA; • lateral earth pressure on buried structures and at the truck wells associated with the loading dock; • recommendations for the installation of new 6-in. to 24-in. diameter sewer and drain lines including bedding materials, the use of geotextile separation fabric, and backfill materials;

PROJECT NO. 1		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	<ul style="list-style-type: none"> allowable load capacities, in compression and tension, for various sizes of treated timber piles, timber composite piles, and square, precast concrete piles; estimated settlement due to structural loads; estimated settlement of piles due to fill placement; recommendations for flexible and rigid pavements; and recommended truck well designs and construction at the loading dock. <p>Although Eustis Engineering was not selected to conduct the test pile program, as the geotechnical engineer of record, we provided recommendations in response to the contractor's RFI regarding the test pile program. Our recommendations centered on the reaction piles and prepunching/predrilling operations. We also reviewed the test pile program for the consulting engineer on the project providing our conclusions and professional opinions regarding the results.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
May 2017 (Actual)	Unknown	\$11,500

PROJECT NO. 2		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Sheriff's Office First District Station 3620 Hessmer Avenue Metairie, Louisiana Eustis Engineering Project No. 23114</p> <p>Jefferson Parish Sheriff's Office Through N-Y Associates, Inc. 2750 Lake Villa Drive Metairie, Louisiana 70002 Jonathan O'Rear @ 504-885-0500</p>	<p>The Jefferson Parish Sheriff's Office planned a new station on Hessmer Avenue in Metairie, Louisiana. The station would be approximately 7,000 square feet in plan size with a main floor comprising an entrance lobby, retail space, and storage space with the second floor serving as the JPSO's First District office. The main floor and pavements would be constructed between existing grade up to an elevation of 4 feet.</p> <p>Eustis Engineering drilled one soil boring to a depth of 100 feet below the existing ground surface. The boring depth was required to identify the surface of the Pleistocene formation, and to evaluate settlement and downdrag due to the placement of fill. Eustis Engineering also drilled five auger borings to depths of 10 feet for the pavement areas.</p> <p>After completing the field investigation, our laboratory personnel performed a variety of soil mechanics laboratory tests including natural water content, unit weight, unconfined compression shear, and unconsolidated undrained triaxial compression shear. These tests were used to classify the soils, determine their shear strength, and determine their relative compressibility.</p> <p>Our engineering staff performed engineering analyses for the project. These analyses included:</p> <ul style="list-style-type: none"> • recommendations for site preparation, • recommendations for placement and compaction of fill, • estimates of allowable pile load capacities, • effects of downdrag on piles due to fill placement, • estimates of settlement, • components and thicknesses for rigid and flexible pavements, and • general foundation construction procedures. <p>Eustis Engineering later provided engineering analyses and recommendations comprising settlement estimates for closely spaced pile groups under the effects of final site grading and structural loads, a discussion on the use of job piles for pile load tests, and a discussion of pile downdrag settlement estimates based on site settlements as contrasted with settlements based on estimated pile adhesional forces.</p> <p>Finally, we were brought in to consult on the test pile program. Services performed in this capacity included reviewing pile driving records, witnessing pile load tests, evaluating pile group effects, and providing general consultation regarding obstructions and conflicts.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
May 2018 (Actual)	Unknown	\$11,400

PROJECT NO. 3		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Proposed Pump Station Blanchard Lane Grand Isle, Louisiana Eustis Engineering Project No. 24160</p> <p>Jefferson Parish Through GIS Engineering, L.L.C. 197 Elysian Drive Houma, Louisiana 70363 Kyle Galloway @ 985-219-1000</p>	<p>Plans called for the pump station to be supported on timber or concrete piles. Three reinforced concrete inlet pipes were planned, and two 24-in. diameter discharge pipes would be connected to the pump station. Each of the discharge pipes would be connected to a vertical pump with an electric motor housed on an elevated platform above the pump station. The pump station would have approximate plan dimensions of 14' x 16.33'. A design alternative, consisting of a grade supported pump station (without pile support), was also evaluated as part of our investigation.</p> <p>In the field, one undisturbed boring was drilled for the project extending to a depth of 150 feet below the existing ground surface. In the laboratory, soil mechanics laboratory tests included visual classification, natural water content, unit weight, unconfined compression shear, and unconsolidated undrained triaxial compression shear tests.</p> <p>Engineering analyses included the following:</p> <ul style="list-style-type: none"> • recommendations for ground water management; • site preparation recommendations including excavation preparation and development of a working platform/bedding as well as a sealant slab; • recommended construction materials including geotextile fabric as well as structural fills and their compaction; • temporary retaining structures; • dewatering and pressure relief associated with a working platform; • allowable soil bearing values for the pump station, net applied soil pressure, and settlement of the mat/slab supported pump station; • consideration of hydrostatic uplift pressures; • lateral earth pressures; • estimated allowable load capacities for various sizes of treated ASTM D25 quality timber piles and square precast concrete piles; • estimated pile settlement due to sustained structural loads; and • pile installation recommendations. 	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
August 2019 (Actual)	Unknown	\$14,500

PROJECT NO. 4		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Jung and Falcone Lift Station Upgrades New Sanitary Lift Station Marrero, Louisiana Eustis Engineering Project No. 23819</p> <p>Jefferson Parish Through Principal Engineering, Inc. Suite 19 1011 North Causeway Boulevard Mandeville, Louisiana 70471 Jeneva Hinojosa, E.I. @ 985-624-5001</p>	<p>The new lift station was to consist of a fiberglass wet well and a fiberglass valve pit. The wet well was to be approximately 6 feet in diameter and 18 feet in depth. The valve pit was to be approximately 6 feet in diameter and 8 feet in depth. Site improvements were to include a gravity sewer line installed approximately 12 feet below grade and a force main approximately 4 feet below grade.</p> <p>Our field investigation included the drilling of one soil boring to a depth of 80 feet below the existing ground surface drilled with truck mounted equipment. Once in the laboratory, samples collected in the field were subjected to soil mechanics laboratory tests including visual classification, natural water content, unit weight, unconfined compression shear, and one-point unconsolidated undrained triaxial compression shear.</p> <p>Using these data, our staff performed engineering analyses and developed recommendations for the project. Engineering analyses included:</p> <ul style="list-style-type: none"> • site preparation encompassing temporary and permanent drainage and excavation recommendations; • dewatering and pressure relief, lateral movement, and excavation base preparation associated with the sanitary gravity sewer line, wet well, and valve box; • lateral earth pressures; • base preparation, pipe bedding, and backfill for the force main and sanitary sewer line; • allowable soil bearing value recommendations for the wet well and valve box; • allowable pile load capacities, in compression and tension, for treated ASTM D25 quality timber; and • settlement estimates for both ground supported and pile supported project features. 	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
June 2018 (Actual)	Unknown	\$4,900

PROJECT NO. 5**Project Name, Location, and
Owner's Contact Information:****Nature of Firm's Responsibility:**

**St. John The Baptist Parish
Proposed Generator Installations
at Seven Sites
St. John The Baptist Parish, Louisiana
Eustis Engineering Project No. 22398**

St. John The Baptist Parish Through
G.E.C., Inc.
8282 Goodwood Boulevard
Baton Rouge, Louisiana 70806
Robert P. Dugas Jr. @ 225-612-3000

Generator platforms were to be installed at seven locations including two pump stations, a lift station, three wastewater treatment plants, and a sewerage plant in St. John the Baptist Parish.

LOCATION	GENERATOR WEIGHT IN POUNDS	PROPOSED PLATFORM	PLATFORM DIMENSIONS
LaPlace Park Pump Station	47,500	Elevated	31'8" x 16'
Belle Grove Pump Station	10,000	Elevated	19' x 12'
Percy Hebert Lift Station	18,000	Grade Supported	20' x 10'
Garyville Wastewater Plant	10,000	Grade Supported	16' x 10'
Tigerville Wastewater Plant	10,000	Grade Supported	18' x 10'
Central Wastewater Plant	10,000	Grade Supported	19' x 14'
Wallace Sewerage Plant	10,000	Grade Supported	18' x 10'

Using available subsurface and geologic data, Eustis Engineering performed analyses to estimate the allowable load capacities for treated timber piles at the LaPlace Park Pump Station and to estimate the allowable soil bearing values for lightly loaded mat foundations at four additional sites.

Geotechnical investigations were performed at two of the seven sites (Central Wastewater Plant and Belle Grove Pump Station). These explorations included the drilling of one soil boring at each site to a depth of 50 feet below the existing ground surface. Available subsurface and geologic data were used for the remaining locations. Soil mechanics laboratory tests were performed on the samples collected in the field to evaluate the substrata at each location.

Engineering analyses for these locations were performed to estimate allowable soil bearing values for lightly loaded, grade supported mat foundations; and allowable pile load capacities for treated timber pile foundations. General site preparation and construction

PROJECT NO. 5		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	recommendations, as well as estimates of settlement and differential settlement, were provided in our geotechnical report.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
July 2014 (Actual)	Unknown	\$8,900

PROJECT NO. 6		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>St. John the Baptist Parish Ruddock Booster Station Nos. 1 and 3 Ruddock, Louisiana Eustis Engineering Project No. 22804</p> <p>St. John The Baptist Parish Through C. J. Savoie Consulting Engineers, Inc. Post Office Drawer R Paincourtville, Louisiana 70391 Joseph Savoie @ 985-369-2341</p>	<p>The new electrical buildings at Booster Station No. 1 and Booster Station No. 3 would each be raised 15 feet above existing grade to meet the FEMA flood elevation requirements. Timber piles were proposed to support the new platforms. The piles would be driven to existing grade and capped with a concrete slab. Columns would then be utilized to raise the building grade.</p> <p>The field exploration included one soil boring drilled to a depth of 100 feet below existing grade at each site using truck mounted equipment. Our staff coordinated site access with the station operators to minimize disruptions. Once our field operations were completed, the soil samples were transported to our laboratory where they were subjected to a series of soil mechanics laboratory tests to classify the subsoils and to determine their relative strength and compressibility characteristics.</p> <p>Foundation analyses for both locations included:</p> <ul style="list-style-type: none"> • site preparation recommendations; • effects of areal subsidence on the project; • allowable load capacities, in compression and tension, for various sizes and embedments of treated ASTM D25 quality timber piles; • estimated settlement of piles due to structural loads; • differential settlement considerations between pile supported and grade supported features; • pile installation recommendations; and • the effects of vibrations on nearby structures. <p>Separate geotechnical reports were prepared by engineering staff for each site.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
April 2015 (Actual)	Unknown	\$9,600

PROJECT NO. 7		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Lift Station G8-2 Tolmas Drive and West Esplanade Avenue Metairie, Louisiana Eustis Engineering Project No. 22583</p> <p>Jefferson Parish Through Barowka & Bonura Engineers & Consultants, LLC 209 Canal Street Metairie, Louisiana 70005 Jeffrey Bonura @ 504-828-0030</p>	<p>Jefferson Parish planned to improve Lift Station G8-2 by installing a 12' x 12' valve pit 10 feet below the existing ground surface. To determine subsoil conditions and stratifications at the site, Eustis Engineering drilled one undisturbed soil boring to a depth of 80 feet below the existing ground surface using a truck mounted rotary type drill rig. Cohesive or semi-cohesive subsoils were sampled at close intervals or changes in stratum using a 3-in. thinwall Shelby tube sampling barrel. Once the samples had been extracted from the bore hole, pocket penetrometer tests were performed on the trimmed ends of the extruded samples to provide a general indication of the soil's shear strength or consistency.</p> <p>Our laboratory technicians performed soil mechanics laboratory tests consisting of natural water content, unit weight, and unconfined compression shear on undisturbed samples obtained from the boring.</p> <p>Based on the soil boring and soil mechanics laboratory tests, Eustis Engineering developed recommendations for site preparation, excavation and dewatering, lateral earthen pressures, bedding and backfill, estimated allowable soil bearing values for mat foundations, estimates of allowable pile load capacities, estimates of settlement, and general foundation construction procedures.</p> <p>More specifically, engineering analyses included:</p> <ul style="list-style-type: none"> • use of at-rest pressures to determine the structural requirements for any buried structures; • recommendations regarding stability of the structure against hydrostatic uplift; • base preparation recommendations for the valve pit foundation including the use of geotextiles, bedding requirements, and structural fill requirements; • allowable soil bearing values for the valve pit's mat foundation; • allowable load capacities, in compression and tension, for various sizes of treated ASTM D25 quality timber piles to support the proposed valve pit; • estimates of settlement and differential settlement for both mat and timber pile foundations; • excavation and dewatering recommendations associated with construction; and • effects of areal subsidence on the project. 	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
August 2014 (Actual)	Unknown	\$4,100

PROJECT NO. 8		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Sheriff's Office Lafitte Rathburn Tower Lafitte, Louisiana Eustis Engineering Project No. L0415</p> <p>Jefferson Parish Sheriff's Office Through M S Benbow and Associates Professional Engineering Corporation Suite 400 2450 Severn Avenue Metairie, Louisiana 70001 504-836-8925</p>	<p>A communications tower and associated guyed wire supports were to be constructed for the Jefferson Parish Sheriff's Office. Steel H-piles were proposed for support of the tower and guyed wires. The specific tower dimensions and anticipated loads were not available for the exploration.</p> <p>The site was located approximately 2,000 feet east of the intersection of LA Highway 3257 and Forges Street in Lafitte, Louisiana. The tower location was in a generally level lot with existing vegetation and a limestone driveway. Extensive standing water was observed at the site during drilling operations.</p> <p>One soil boring was made at the site to a depth of 125 with an all-terrain mounted, rotary type drill rig. This was to evaluate subsoil conditions and stratification, and to obtain samples of the various substrata.</p> <p>Soil mechanics laboratory tests, performed on samples obtained from the boring, were used to evaluate the physical properties of the subsoils. These tests included natural water content, unit weight, and either unconfined compression shear or unconsolidated undrained triaxial compression shear. In addition, Atterberg liquid and plastic limits tests were performed on selected representative samples.</p> <p>Engineering analyses, based on the soil boring and laboratory test results, were made to determine recommendations regarding site preparation, estimates of allowable vertical load capacities for steel H-piles, estimates of settlement, and general construction recommendations.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
June 2015 (Actual)	Unknown	\$8,600

PROJECT NO. 09	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p>Jefferson Parish Westbank Projects Instrumentation Installation and Monitoring Lapalco Boulevard Overpass Over Bayou Segnette Westwego, Louisiana Parish Project No. 2017-045-RBP Parish Account No. 44220-411-7452 (42211.016) Eustis Engineering Project No. 23937</p> <p>Contact Information: Jefferson Parish Office of Public Works Suite 904 1221 Elmwood Boulevard Jefferson, Louisiana 70123 Miles Bingham @ 504-736-8753</p>	<p>Eustis Engineering performed a site visit and developed a plan for instrumentation installation and monitoring of relative movements of the Lapalco Boulevard Overpass bridge structures at Bayou Segnette in Westwego, Louisiana. We were contracted to install six crackmeters, three tiltmeters, and three temperature sensors on the Lapalco Boulevard Overpass. These instrumentation installations occurred on Bents 4, 24, and 34.</p> <p>The crackmeters were installed at the determined bents. They measured displacements to the nearest 0.0375 millimeter. A set of crackmeters were installed at each bent, one to measure displacement in the direction of traffic and one to measure displacement perpendicular to traffic.</p> <p>Tiltmeters were installed on the faces of the supporting pedestals with inclination measured to the .001 of a degree and oriented to measure uniaxially in the vertical direction perpendicular to traffic. Eustis Engineering measured inclination of the bridge pedestals utilizing a digital level with a precision to the .01 of a degree. These measurements were taken to establish the initial orientation of the tiltmeters. Measurements were taken of inclination in the transverse and longitudinal directions to relate to the structure at the end of the monitoring period. In addition, we conducted a survey to measure relative elevation differences between the tops of pile caps for comparison to the as-built plans. Finally, we conducted traditional survey readings to estimate the movement of the bridge abutments.</p> <p>In an attempt to isolate temperature-related movements of the bridge from traffic-related movements, Eustis Engineering also installed a temperature sensor at each bent in the area exposed to the greatest amount of sunlight. This approach showed variation in temperature as compared to the bridge structure.</p> <p>Finally, Eustis Engineering conducted a level survey of pile caps relative to each other, where available. Some pile caps were inaccessible due to excessive vegetation or water above the pile caps. These measurements were related to two independent temporary benchmarks taken on each side of the bridge structure (east and west) and on the south side of the bridge.</p> <p>Review of existing and gathered data revealed approximately 3 feet of ground subsidence occurred since the bridge was completed. Survey data from Eustis Engineering showed the pile caps towards the center of the bridge span were between 2 and 3 feet higher in elevation than the pile caps near the approaches.</p>

PROJECT NO. 09		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	Instrumentation data showed that movements with respect to time were very slight (less than 1.5 millimeters) over the six-month monitoring period. The movements also appeared to be strongly correlated with fluctuations in temperature. While there were some minor fluctuations, the crackmeters and tiltmeters generally moved with respect to temperature and to less extent, the height of Bayou Segnette.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
10/2019 (A)	Unknown	\$22,900

PROJECT NO. 10	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p>Jefferson Parish Veterans Boulevard Drainage Pump Stations Jefferson Parish, Louisiana Eustis Engineering Project Nos. 22024, 22631, 23396.00-.01, and 24426.00-.01</p> <p>Contact Information: Jefferson Parish Through ECM Consultants, Inc. Suite 200 1301 Clearview Parkway Metairie, Louisiana 70001 Sunina Shrestha, P.E. @ 504-885-4080</p>	<p>Two new drainage pump stations are proposed on the north and south sides of Veterans Memorial Boulevard at the 17th Street Canal. Each of these pump stations will discharge into the 17th Street Canal. Due to a planned bike path along the hurricane protection floodwall, these discharge pipes will need to penetrate the flood protection. As a result, plans called for the replacement of portions of the existing West 17th Street Canal I-walls (which cannot be penetrated and still comply with the U.S. Army Corps of Engineers' [USACE] guidelines) with T-walls. Both pump stations would require demolition of approximately 20 feet of existing concrete I-wall for installation of the new T-wall in order to accommodate a discharge pipe through each wall. Access gates will also be provided as part of the floodwall modifications. For additional data at the site, Eustis Engineering L.L.C. used soil boring and laboratory test data contained in our own files from prior explorations as well as data obtained through a Freedom of Information of Act request to the USACE.</p> <p>Due to the modifications to the flood protection, a safety assurance review (SAR) was conducted by an independent reviewer. The SAR included a review of the plans and specifications as well as design reports and calculations. Comments from the SAR were incorporated into the permit package submitted to the review agencies. The project plans have civil, structural, mechanical, and electrical components. Engineering analyses for the evaluation of the proposed T-wall to support the construction permit application and the SAR followed the USACE's <u>Hurricane and Storm Damage Risk Reduction System Design Guidelines</u>, dated June 2012. Global and local stability analyses were performed to evaluate the design and construction of the T-wall, including temporary flood protection (TFP) and temporary retaining structures (TRS). Stability analyses were also performed to address construction dewatering requirements for the pump station excavation with respect to the existing and proposed flood protection.</p> <p>Our work to support the design included estimates of allowable axial pile load capacity for piles supporting the T-wall foundations as well as the pump station and discharge pipes. We also performed analyses to evaluate the potential for seepage and heave during and after construction for the proposed features. New generator pads were located adjacent to each pump station to house controls outside the new intake excavation.</p> <p>Eustis Engineering is currently performing Engineering During Construction (EDC) services as required by the SAR. To date, we have responded to contractor requests for information (RFIs) and have performed submittal reviews. The EDC submittal reviews include the test pile program (TPP) plan, TRS and TFP methods, and sequences</p>

PROJECT NO. 10		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	proposed by the contractor. We evaluated the results of the TPP to confirm the design pile capacity as well as installation criteria. We will review the results of geotechnical instrumentation to monitor the excavation and dewatering, including piezometers and inclinometers.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
04/2025 (E)	Unknown	\$109,826 (to date)

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. None at this time.		

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

When Eustis Engineering opened its first office in Vicksburg, Mississippi, in 1946, it housed its entire operation in less than 500 square feet of space. *Seventy-eight years later*, our personnel and equipment occupy 40,000+ square feet of space in five locations.

Eustis Engineering is the third oldest, continually operating geotechnical firm in the United States. From a single two-man office to approximately 115 individuals in five offices, the firm has grown to house accounting, administrative, quality control, safety, drilling, engineering, laboratory, and construction materials testing departments. These departments work together to provide our clients with the quality work desired in a cost efficient and timely manner.

Eustis Engineering is headquartered in Metairie, Louisiana, in the heart of Jefferson Parish's East Bank. We also operate branch offices in Baton Rouge and Lafayette, Louisiana; Gulfport, Mississippi; and Houston, Texas. Our offices and staff collaborate seamlessly using Microsoft Teams® and other virtual platforms.

Eustis Engineering's services encompass many disciplines including the performance of:

- subsurface exploration (drilling of soil borings, cone penetration testing, downhole vane, and Geoprobe®);
- soil mechanics laboratory tests;
- field instrumentation and monitoring;
- non-destructive testing of piles and shafts including dynamic pile testing, crosshole sonic logging, single-hole sonic logging, low strain pile integrity testing, and thermal integrity profiling;
- geotechnical engineering design; and
- construction quality control and materials testing services.

Eustis Engineering L.L.C. Important Numbers	
Item	Number
Unique Entity Identifier (UEI)	R83MG9NLTMS4
CAGE Code	4MOP2
Firm License - Louisiana	EF.0003558
Firm License - Mississippi	2078
Firm Registration – Texas	13895

Eustis Engineering has worked on over 850 geotechnical and construction materials testing projects for Jefferson Parish Government entities. We have also worked on over 4,000 projects of all types throughout the east and west banks of Jefferson Parish alone, not considering similar projects in the surrounding parishes. This work history gives our engineering staff unparalleled familiarity with the foundation conditions in the Gulf Coast and the challenges that may arise for projects associated with this contract.

ENGINEERING SERVICES

Eustis Engineering has engineering capabilities to fulfill the requirements of nearly any project, including development of new sites and retrofits of existing sites. As evidenced by the included write-ups in this

package, our experience with various infrastructure projects is varied and extensive. We have performed services for buildings, warehouses, pump stations, lift stations, booster stations and generator installations among other projects. Our experience also includes explorations to facilitate horizontal directional drilling (HDD) operations, jack-and-bore operations, and/or trenching/excavation for utility relocations. We can develop geotechnical recommendations for temporary retaining structures/cofferdams to support these excavations, including sheet pile tips for cantilever and braced walls. We evaluate earth pressures, potential heave and dewatering, and bedding requirements.

We have developed pile capacity and bearing capacity analyses for projects throughout the coastal areas of the United States. Eustis Engineering's evaluation of piles includes estimates of vertical capacity for groups. We also perform lateral analyses of individual piles and pile groups using LPILE® and GROUP® software.

We perform settlement studies including estimates of settlement and time-rate of settlement with and without wick drains to enhance consolidation. These settlement studies include estimates and recommendations for lift construction affecting a gain-in-strength of foundation soils associated with subsoil consolidation. Preload/surcharge operations are also a component of our settlement evaluations.

In our practice, Eustis Engineering has developed methodologies associated with the estimates of negative skin friction on pile foundations. The methods are the current state of practice. The extension of these methods is an evaluation of settlement induced bending moment (SIBM). Eustis Engineering is also utilizing a numerical model program, SIGMA/W, in association with the rigorous settlement program Settle3.

Engineering Staffing

Our engineering staff has 16 master's degrees in Civil Engineering, Engineering, Engineering Management, Geology, and Business Administration. Participation in post Bachelor of Science curricula, as well as continuing education and professional registration that emphasizes engineering management and technical issues, is very important to Eustis Engineering. Our engineers also regularly present at technical conferences. We encourage and fund our staff for these activities and programs.

Employee	Education	Experience	
		Years with Eustis Engineering	Total Years
Professional Engineers (P.E.)			
Benjamin M. Cody	M.S. / Civil Engineering	22	26
Brian A. Deschamp		11	11
	B.A. / Business Administration		
	M.S. / Civil Engineering – Geotechnical		
P. Tennant Duckworth	M.S. / Civil Engineering	3	3
James J. Hance	M.S. / Civil Engineering	20	24
	M.B.A. / Business Administration		
Chad L. Held	M.S. / Civil Engineering	33	33
Matthew K. Morales	B.S. / Civil Engineering	15	15
Tomas K. Morales	B.S. / Civil Engineering	10	10

Travis R. Richards	M.S. / Engineering	17	24
	M.S. / Engineering Management		
	Coastal Engineering Certificate		
Chad D. Roe	M.S. / Civil Engineering	1	11
Gwendolyn P. Sanders	M.S. / Engineering	31	31
Sanjay S. Shahji	M.S. / Civil Engineering	1	18
Shaun R. Simon	M.S. / Civil Engineering	24	24
Alice E. Stark	B.S. / Civil and Environmental Engineering	1	8
Patrick A. Thurmond	M.S. Engineering Management	9	9
	M.S. / Civil Engineering		
	Coastal Engineering Certificate		
Sean G. Walsh	M.S. / Civil Engineering	11	16
James M. Williams	M.S. / Civil Engineering	6	6
Henry C. Worley	M.S. / Engineering	6	7
	Coastal Engineering Certificate		
Engineering Interns (E.I.)			
Adam K. Abdulbagi	B.S. / Civil Engineering	1	1
Naba A. Almofraji	B.S. / Civil Engineering	<1	6
Alvaro E. Carvajal	B.S. / Civil Engineering	1	1
Joseph P. DiGiovanni	B.S. / Civil Engineering	1	1
Steven B. Tidwell	B.S. / Geological Engineering	<1	13
Engineering Graduates			
Alexander Soriano Doninelli	B.S. / Civil Engineering	<1	4
Lesley L. Reitmeyer	B.S. / Civil Engineering	15	15
Xia (Bruce) Xialong	PhD / Geotechnical Engineering	<1	10
	M.S. / Geotechnical Engineering		
Geologists			
Matthew J. Blasini, G.I.T.	B.S. / Geology	5	6
Nathan A. Quick, P.G.	M.S. / Geology	2	7
Total Years of Experience		246	341

Reviewing our table, the majority of Eustis Engineering's professional engineers have at least 10 years of experience in geotechnical engineering.

Cone Penetration Testing Capabilities

Eustis Engineering owns two dedicated track-mounted Cone Penetration Testing (CPT) rigs and operates four other multi-purpose rigs capable of performing CPTs. Operators are either specifically trained engineering technicians or engineers who perform field operations utilizing the CPT equipment. Engineers with specialized knowledge and experience operating the rigs evaluate the sounds and produce the CPT logs. Five of our rigs can be placed on a cargo buggy, shallow draft barge, or airboat to access coastal marsh or open water. We have sounded to depths of 180 feet and have the ability to perform dissipation and seismic testing.

Field testing is performed according to ASTM D5778 and common industry practices. Eustis Engineering has been performing CPTs and using CPT technology since the early 2000s.

A CPT can be accomplished rapidly with four or five being performed in the same time frame as a standard geotechnical boring; therefore, CPTs are typically cost-effective in providing enhanced subsurface exploration and better delineation of subsurface conditions at a project site.

Dynamic Pile Testing Capabilities

Eustis Engineering was the first private consulting firm to own and operate dynamic pile testing equipment in the States of Louisiana and Mississippi. The pile types tested include timber piles; small size pipe piles; square, precast concrete piles and large (60 to 72-in. diameter) spun-cast, prestressed concrete piles; open-end and closed-end steel pipe piles; and steel H-piles.

We often upgrade our data collectors and operate four Pile Driving Analyzers® (PDAs): one PAX unit and three PDA-8G units. These units can be battery operated and use wireless gauge transmitters to eliminate the need for a main cable to connect directly to the units. We also stock and use underwater gauges to monitor pile driving in marine environments when the pile head descends below the water surface. To support our four PDA units, Eustis Engineering maintains an extensive inventory of calibrated gauges and accessories. To provide quality assurance and rapid responses to issues in the field, all PDAs have wireless communication, enabling our engineers direct oversight of the dynamic pile testing process in real time.

We also use this PDA equipment to maintain the calibrations of our automatic Standard Penetration Test (SPT) hammers on our drill rigs.

Other Non-Destructive Testing Capabilities

Our engineering staff at Eustis Engineering performs other non-destructive testing services to verify the structural integrity of drilled shafts, augercast piles, and precast concrete piles. Some of these processes include crosshole/single-hole sonic logging (CSL or SSL), low strain pile integrity testing (PIT), and thermal integrity profiling (TIP™). We also perform parallel seismic testing to evaluate existing foundation depths.

INSTRUMENTATION

Eustis Engineering has installed geotechnical instrumentation for decades. Our instrumentation programs have resulted in substantial cost savings to our clients by reducing preload durations, providing refinement of geotechnical design parameters through full-scale testing, and verifying the performance of cutting-edge designs. Our services go beyond the construction phase, as long-term monitoring programs enable owners to maximize utilization of their facilities throughout the design life by verifying soil behavior is within acceptable limits.

Eustis Engineering provides the following instrumentation services:

- vibrating wire devices including piezometers, extensometers, settlement gauges, and strain gauges;
- data loggers to enable periodic collection of data for vibrating wire devices;
- data links for remote web access to data loggers in near real time;
- settlement plates;

- conventional slope inclinometers or MEM sensor array inclinometers; and
- monitoring services of all instrumentation devices with geotechnical interpretation.

Instrumentation is a natural complement to our design services, providing data to verify or modify recommendations based on the observational method. Ongoing monitoring enables us to provide continuing services from project inception to the end of a project's design life.

DRILLING/FIELD EXPLORATION

Eustis Engineering possesses licenses and credentials to perform geotechnical drilling in Louisiana and Mississippi (no license is needed in Texas). With our licenses and credentials, Eustis Engineering drills soil borings and performs sampling operations for our clients' projects in all types of environments including land, marsh, swamp, and marine. Our personnel have the capability and experience to provide these services from trucks, barges, pontoons, and swamp or marsh buggies. We also have portable units that can be used inside structures planned for retrofit/renovations.

Field Exploration Personnel

We can provide up to nine drillers and drill rigs capable of obtaining standard 3-in. diameter Shelby tube samples and 5-in. diameter fixed piston samples; sounding CPTs; advancing Geoprobe samplers; and installing geotechnical instrumentation on land, in water, and in marsh environments as indicated in the following table.

Capabilities of Eustis Engineering's Field Exploration Staff	Blair Armant	Scott Bombard	James Cordes	Tevin Crawford	Rene Davidson	Eric Held	James Lubben	George Reitmeyer	Lawrence Rome
Hand Auger Borings	X	X	X	X	X	X	X	X	X
General Type (3-in. Diameter Borings)	X	X	X	X	X	X	X		X
General Type (3-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)	X	X	X	X	X	X	X		X
Undisturbed Type (5-in. Diameter Borings)	X	X	X	X	X	X	X		X
Undisturbed Type (5-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)	X		X	X	X	X	X		X
Location Information (Latitude, Longitude)	X		X	X	X	X	X		X
Set Permanent Benchmarks	X		X	X	X	X	X		X
Install Instrumentation	X		X	X	X	X	X		X
Cone Penetration Tests						X		X	
Geoprobe Sampling		X	X			X	X		X

Field Exploration Equipment

Eustis Engineering owns and operates six wet rotary drill rigs, both truck-mounted and skid-mounted. This equipment includes one Diedrich truck-mounted D-50 turbo drill rig (with an automatic SPT hammer); one Failing skid only rig (with an automatic SPT hammer); one truck-mounted CME-55 rig; one track-mounted CME-850X rig with an automatic hammer; one track-mounted CME-850XR rig with an automatic hammer; and one truck-mounted CME-55 rig with a detachable CME-55 skid unit and automatic hammer. We also own two track-mounted cone penetrometer systems capable of providing up to 15 tons of reaction. Our CME track rigs provide low ground pressure and are designed to traverse soft ground surfaces, steep slopes, and lightly wooded areas.

Eustis Engineering also owns four direct push Geoprobe units: two 3230DTs, the 6620DT, and the 540M. Eustis Engineering's 6620DT/3230DT Geoprobe with their 12-in. tracks allow this equipment to be used on pavement as well as off road and in rugged terrain. The 6620DT and 3230DT rigs also can be placed on specialized equipment. This includes a jack-up barge and a cargo buggy for operations over marsh/water. These units can install shallow monitoring wells and other instrumentation. We also have the capability to perform CPTs and downhole vanes using the 3230DT rigs.

Our 540M Geoprobe can fit into confined spaces as narrow as 32 inches. The 540M can also be utilized on an airboat for coastal terrains.

Other Specialized Soil Sampling Equipment

In addition to our drill rigs, Eustis Engineering owns and operates an Acker Vane Shear to perform down hole in-situ testing. We also have hand augers to obtain samples at various depths for use in classification and stratification of soil deposits. This equipment can be used in association with handheld piston samplers to obtain small diameter samples. Finally, we operate dynamic cone penetration tests (DCPTs) to assess the in-situ strength of undisturbed soils and compacted materials in accordance with ASTM D6951.

Drone Capabilities

Eustis Engineering utilizes small Unmanned Aerial Systems (sUAS), more commonly known as "drones," to enhance our services. We use drones to perform site inspections, field reconnaissance, pre/post-construction condition surveys, construction inspections, and other forms of visual monitoring. We currently operate a DJI Mavic Air 2S Drone piloted by a Part 107 Certified Remote Pilot.

LABORATORY SERVICES

Eustis Engineering's laboratories are constantly evolving with the purchase of new equipment on a yearly basis. Our gINT® data management software from Bentley allows for maximum efficiency in the production of boring logs and data entry.

Eustis Engineering has also acquired OpenGround®, Bentley's Cloud platform, which interfaces with a collection of geotechnical applications. OpenGround provides a comprehensive solution for collecting, reporting, managing, visualizing, analyzing, and accessing data. Its advanced digital workflows combine both subsurface and surface data into one cohesive design. This software provides Eustis Engineering's team

members access to a data source via connected applications or a web portal, increasing both collaboration and efficiency. Improved access and reliability will save time and money in the planning, design, analysis, construction, and operation of infrastructure projects.

Eustis Engineering has also acquired KeyLAB® from Bentley. KeyLAB is the leading laboratory management system built specifically for geotechnical and construction materials testing laboratories. It improves our laboratory efficiency at every stage of the geotechnical and construction testing process, including sample and storeroom management, as well as electronic scheduling, testing, and reporting. It integrates with Microsoft Excel®, allowing for the efficient development of customized worksheets and reports.

Technical testing common to our laboratories includes ASTM; American Concrete Institute (ACI); the State of Louisiana, Department of Transportation and Development (LaDOTD); AASHTO; Federal Aviation Administration (FAA); and the U.S. Army Corps of Engineers (USACE). Our laboratories hold accreditations from AASHTO, the LaDOTD, and the USACE.

Laboratory Staffing

Eustis Engineering currently has qualified technicians to sample construction materials and perform soil mechanics laboratory testing. These technicians are versed in the latest standards from ASTM, LaDOTD, Mississippi Department of Transportation (MDOT), AASHTO, FAA, and the USACE. Many of our technicians have earned certifications with the National Institute for Certification in Engineering Technologies (NICET) in the area of geotechnical engineering technology and in the subfields of construction, exploration, generalist, and laboratory.

Laboratory Quality Control

In our effort to ensure the quality of our laboratory and materials testing, our programs are regularly inspected by outside agencies such as the USACE, the AMRL Group of the American Association of State Highway and Transportation Officials, and the CCRL Group of AASHTO. Eustis Engineering is also accredited by the MDOT.

Eustis Engineering has three soil mechanics laboratories where our laboratory practices and quality management system meet the requirements of AASHTO R 18 and ASTM E329. These offices are located in Metairie, Baton Rouge, and Gulfport. Individual offices may comply with ASTM quality system specifications including ASTM C1077, ASTM D366, and ASTM D3740. Accreditations in the various areas are shown below.

Metairie	Baton Rouge	Gulfport
Aggregate Concrete Masonry Soil	Aggregate Soil Concrete Spray Fire-Resistive Material	Aggregate Asphalt Concrete Soil Spray Fire-Resistive Material

To further show quality is paramount to Eustis Engineering, we have two individuals in charge of maintaining quality in our testing. Travis R. Richards, P.E., is the Engineer-In-Charge. Timmy Holleman, dedicated Quality Control Manager, oversees the calibration of our equipment and maintenance of our quality system. The

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ No. 24-026 Resolution #144425

Seeking Individuals or Firms to Provide Electrical Engineering on an As Needed Basis

B. Firm Name & Address:

Specialized Engineering, LLC

847 Galvez Street

Ste 100-A

Mandeville, LA 70448

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:

Brian Froeba, CFO, PE 37141

504-220-7724

bfroeba@seng-llc.com

847 Galvez Street

Ste 100-A

Mandeville, LA 70448

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.

Allison Froeba, CEO, PE 32492

504-400-6238

afroeba@seng-llc.com

847 Galvez Street

Ste 100-A

Mandeville, LA 70448

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

<input type="checkbox"/> Administrative	<input type="checkbox"/> Estimators	<input type="checkbox"/> Specification Writers
<input type="checkbox"/> Architects (Licensed)	<input type="checkbox"/> Geologists	<input type="checkbox"/> Structural Engineers
<input type="checkbox"/> Chemical Engineers	<input type="checkbox"/> Geotechnical Engineers	<input type="checkbox"/> Graduate Engineers
<input checked="" type="checkbox"/> 2 Civil Engineers	<input type="checkbox"/> Interior Designers	<input type="checkbox"/> Project Managers
<input type="checkbox"/> Construction Inspectors	<input type="checkbox"/> Landscape Architects	<input type="checkbox"/> Clerical
<input type="checkbox"/> Ecologists	<input type="checkbox"/> Land Surveyor	<input type="checkbox"/> Grant/Funding Specialist
<input type="checkbox"/> Electrical Engineers	<input type="checkbox"/> Mechanical Engineers	<input type="checkbox"/> Sanitary Engineers
<input type="checkbox"/> Engineer Intern	<input type="checkbox"/> Environmental Engineers	
<input type="checkbox"/> Professional Land Surveyors		<u>2</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

2.

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. N/A		
2.		
3.		

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

2

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:

Brian Froeba, CFO, PE 37141

Project Assignment:

Lead Civil Engineer

Name of Firm with which associated:

Specialized Engineering, LLC

Years' experience with this Firm:

6 Years

Education: Degree(s)/Year/Specialization:

Bachelor of Science, 8/2007, Civil Engineering

Active registration: Year first registered/discipline:

PE License 06/05/2012, Civil Engineering

Other experience and qualifications relevant to the proposed Project:

Total of Sixteen (16) years' experience with civil structural design experience for heavy industrial refineries and power industries designing steel structures and concrete foundations for multiple scope projects. Designs include various electrical support foundations. Five (5) years' experience as an onsite project engineer managing scope projects for critical refinery turn arounds.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Allison Froeba, CEO, PE 32492
Project Assignment:
Lead Civil Engineer
Name of Firm with which associated:
Specialized Engineering, LLC
Years' experience with this Firm:
8 Years
Education: Degree(s)/Year/Specialization:
Bachelor of Science, 5/2001, Civil Engineering
Active registration: Year first registered/discipline:
PE License 06/21/2006, Civil Engineering
Other experience and qualifications relevant to the proposed Project:
Total of Twenty-Two (22) years of civil engineering design experience. Seventeen (17) years of lead coordination and design experience for heavy industrial refineries and power industries designing steel structures and foundations including various electrical support foundations, five (5) years' experience in roadway, drainage, and transportation design for federal and municipal governments, and one (1) year of commercial building design.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
N/A
Project Assignment:
N/A
Name of Firm with which associated:
N/A
Years' experience with this Firm:
N/A
Education: Degree(s)/Year/Specialization:
N/A
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
N/A

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
N/A
Project Assignment:
N/A
Name of Firm with which associated:
N/A
Years' experience with this Firm:
N/A
Education: Degree(s)/Year/Specialization:
N/A
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
N/A

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
N/A
Project Assignment:
N/A
Name of Firm with which associated:
N/A
Years' experience with this Firm:
N/A
Education: Degree(s)/Year/Specialization:
N/A
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
N/A

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:	
Cipher Mining Facilities Odessa, Texas Chris Totin chris.totin@ciphermining.com (917)-635-3666	Civil Engineer Firm responsible for all infrastructure for a new crypto mining facility. Design includes sitework, drainage, foundations for buildings and cable tray supports, and steel cable tray supports. Assisted in development of prefabricated office building. Also responsible for entire project permits with the City of Odessa.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
12/2022	\$22,000,000	\$4,000,000

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Phillips 66 Alliance Refinery Belle Chasse, Louisiana	Civil Engineer Firm Responsible for various projects at the Phillips 66 Refinery <ul style="list-style-type: none"> • Substations 5A, 5B, 5C, 5D. Designed included steel supports and concrete foundations to support three-phase 300kVA transformers and Substations. Design also included cable tray steel supports and concrete foundations • Unit 593 Tail Gas Treater Unit: Design all foundations for new unit including 200' vessel, 100' vessel, 83' vessel, process structure, electrical building, transformer, and misc. steel supports. • Unit 191 and R1 Cable Tray Supports design includes all the steel and foundation supports to route new 36" cable tray through both units. 	

TEC Professional Services Questionnaire

	<ul style="list-style-type: none"> 891 Coke Bridge Crane. Evaluated the capacity of the existing coke bridge crane structure supporting the 18 ton bridge crane and provide an engineered solution to reinforce the structure to meet the requirements and recommendations of CMAA 70 and AISC Design Guide 7. 	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Varies	Varies – Typical Per Project >\$1M	Typical Per Project <\$500,000

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
PBF Chalmette Refinery Chalmette, Louisiana Mitch Foster Mitch.Foster@pbfenergy.com (504) 281-6107	Civil Engineer Firm Responsible for various civil engineering projects at the PBF Chalmette Refinery <ul style="list-style-type: none"> PBF Chalmette Refinery, Unit 11 and 12. Design included concrete foundations for new substation buildings, transformer foundations, cable tray steel supports and foundations. PBF Chalmette Refinery, Coke Chute. PBF Chalmette Refinery, Fire Water Upgrade. Design included 10" fire water upgrade throughout the refinery. Various Piperack steel supports and concrete foundations throughout the refinery. 	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Varies	Varies – Typical Per Project >\$1M	Typical Per Project <\$500,000

TEC Professional Services Questionnaire

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

TEC Professional Services Questionnaire

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

TEC Professional Services Questionnaire

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

TEC Professional Services Questionnaire

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
N/A	N/A	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
N/A	N/A	N/A

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	N/A
2. N/A	N/A	N/A
3. N/A	N/A	N/A

TEC Professional Services Questionnaire

4.	N/A	N/A	N/A
N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.			
N/A			
O. To the best of my knowledge, the foregoing is an accurate statement of facts.			
Signature: <u>Allison Froeba</u> Print Name: <u>Allison Froeba</u>			
Title: <u>CEO</u> Date: <u>07/30/2024</u>			