



STATEMENT OF QUALIFICATIONS

Routine Engineering Services Projects for Water Projects

SOQ 24-013 – Resolution No. 144203

Prepared For: Jefferson Parish

June 21, 2024



ATTN:

June 21, 2024

Jefferson Parish Council
General Government Building
200 Derbigny Street, Suite 6700
Gretna, LA 70053

RE: Routine Engineering Services for Water Projects in Jefferson Parish, SOQ 24-013

Dear Council Members,

Trigon Associates, LLC (Trigon) is delighted to present our Statement of Qualifications (SOQ) to Jefferson Parish (Parish) for the specified project. Our submission aligns seamlessly with the advertised Request for Qualifications.

As a Louisiana Small Business Enterprise (SBE) and a woman-owned business, Trigon specializes in delivering engineering, consulting, and management services. Our team boasts over 125 years of collective expertise, particularly in municipal and public works projects, focusing on water, sewer, drainage/stormwater, and transportation domains. We bring extensive experience with federal, state, and local grant programs, positioning us as a capable partner for the Parish's needs.

Key highlights of our qualifications include:

- Trigon's leadership features two former Jefferson Parish employees, amassing over 15 years of service within the Parish. One held roles as the Sewerage Capital Improvements Program Manager, Assistant Director, and Acting Director within the Department of Sewerage.
- Our team includes seasoned program managers, design managers, construction managers, and engineers with diverse backgrounds across multiple capital improvement programs, notably in sewer projects.
- We are proud to have professional engineers registered in Louisiana, Alabama, Arkansas, California, Florida, Mississippi, New York, Oklahoma, Texas, Virginia, and Washington, DC.
- Trigon has a proven track record in planning, engineering, design, construction inspection, construction management, and certification efforts for water projects.

We are grateful for the opportunity to present our SOQ and eagerly anticipate the chance to strengthen Trigon's partnership with the Parish through successful collaborations. Should you require any further information during the evaluation process, please feel free to reach out to us at your convenience.

Sincerely,

Michelle Herbert
Chief Executive Officer



TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Routine Engineering Services for Water Projects

SOQ 24-013, Resolution No. 144203

B. Firm Name & Address:



Trigon Associates, LLC

1515 Poydras Street, Suite 930

New Orleans, LA 70112

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:

Gregory A. Kolenovsky, PE, PMP, PgMP (LA Professional Civil Engineer #30266)

Managing Partner/Principal-in-Charge

Trigon Associates, LLC

1515 Poydras Street, Suite 930, New Orleans, LA 70112

P: 504.585.5767 F: 504.585.5747

gkolenovsky@trigonassociates.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

SAME AS ITEM C.

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

<u>3</u> Administrative	<u> </u> Estimators	<u> </u> Specification Writers
<u>1</u> Architects (Licensed)	<u>2</u> Geologists	<u>1</u> Structural Engineers
<u>1</u> Chemical Engineers	<u> </u> Geotechnical Engineers	<u> </u> Graduate Engineers
<u>6</u> Civil Engineers	<u> </u> Interior Designers	<u>2</u> Project Managers
<u>4</u> Construction Inspectors	<u> </u> Landscape Architects	<u> </u> Clerical
Ecologists	<u> </u> Land Surveyor	<u>1</u> Grant/Funding Specialist
Electrical Engineers	<u>1</u> Mechanical Engineers	<u> </u> Sanitary Engineers
Engineer Intern	<u>2</u> Environmental Engineers	<u>9</u> Other
Professional Land Surveyors		<u>33</u> TOTAL

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

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



TEC Professional Services Questionnaire

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

1. N/A

2.

**H. Has this JOINT-VENTURE previously worked together? Please check: N/A
YES _____ NO _____**

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

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. BFM Corporation, LLC 534 Williams Boulevard Kenner LA 70062 504-468-8800	Surveying	Yes
2. Eustis Engineering Services, LLC 3011 28th Street Metairie, LA 70002 (504) 834-0157	Geotechnical Engineering	Yes

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

N/A



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:

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Greg Kolenovsky, PE, PMP, PgMP

Managing Partner

Project Assignment:

Principal-in-Charge

Name of Firm with which associated:



Years' experience with this Firm:

15

Education: Degree(s)/Year/Specialization:

BS in Civil Engineering, University of Texas at Austin, 1998

Active registration: Year first registered/discipline:

2002, Civil Engineer, Louisiana (also registered in AL, AR, FL, MS, OK, TX and D.C.)

2005, Project Management Professional (PMP), Project Management Institute

2010, Program Management Professional (PgMP), Project Management Institute

Other experience and qualifications relevant to the proposed Project:



Greg brings over 25 years of experience in planning, design, and management. His expertise includes managing water, sewer, drainage, transportation, environmental, and construction projects, as well as large capital improvement and international development programs. Greg excels in system analysis, troubleshooting, and computer modeling of hydrologic and water resource systems, and his experience extends to designing treatment, storage, and distribution projects. As Principal-in-Charge, Greg ensures the highest standards of quality assurance and control (QA/QC) for all of Trigon's infrastructure projects. He has led numerous federally funded disaster recovery, hazard mitigation, and coastal restoration programs, with a project portfolio that includes initiatives in the Middle East, Jordan, and Asia. Greg is a licensed Professional Engineer (PE) in Louisiana and seven other states. He also holds certifications as a Project Management Professional (PMP) and Program Management Professional (PgMP) from the Project Management Institute, making him one of the few PgMPs worldwide and among a select group in Louisiana.

RELEVANT PROJECT EXPERIENCE

Water Quality Master Plan, New Orleans, LA. Served as Project Manager for major water treatment plants – the Carrollton Water Treatment Plant (WTP) on the East Bank of the Mississippi River as well as the Algiers WTP on the West Bank. The project generally consisted of performing an assessment of both the Carrollton WTP and the Algiers WTP to determine physical, operational and process conditions of all



TEC Professional Services Questionnaire

Kolenovsky, continued.

Other experience and qualifications relevant to the proposed Project:

infrastructure at the plants. Based on the assessments, the current status was documented and a forecast of issues to be addressed was developed, including a prioritized list of short- and long-term needs required to address reliability and redundancy.

Water Line Replacement Program (WLRP), New Orleans, LA. Provided review and QA/QC for efforts performed under the Sewerage and Water Board of New Orleans' WLRP. The purpose of this program was to replace water lines on the East Bank of the City damaged as a result of floodwaters from Hurricane Katrina. Eligible water lines for replacement were determined based upon a FEMA and S&WB-developed pipe evaluation criteria. The resulting water line replacements had to be coordinated with the City of New Orleans Department of Public Works' Recovery Roads Program; the Department of Transportation and Development's Submerged Roads/Paths to Progress Program; and ongoing City and S&WB projects for street and sidewalk repairs, water point repairs, sewer repairs and replacement; and other relevant stakeholders' projects. Trigon was the prime engineer for improvements in the Lakeview, Lakewood, Navarre and West End neighborhoods.

Port Sulphur Water Treatment Plant Damage Assessment & Improvements Design; Port Sulphur, LA. Principal-in-Charge for Trigon's efforts as the Prime consultant for a physical evaluation and assessment of the Port Sulphur Water Treatment Plant (WTP), a 3 MGD water treatment facility in Plaquemines Parish, as well as the associated Raw Water Pump Station (RWPS). The WTP and RWPS were significantly impacted by Hurricane Ida. Trigon has completed the design of improvements based on the previously conducted damage assessment and the resulting report and is currently in construction phase services.

District B Miscellaneous Water Improvements; Shreveport, LA. Provided QA/QC for detailed design in support of replacement of 4,000 linear feet of 8-inch potable water lines for the City of Shreveport (COS). Project tasks included field-confirmation of survey, coordination with existing utilities, design of new water line locations in plan and profile in accordance with COS standard specifications and details, and coordination with CAD support team.

Water Asset Management Plan, Jefferson Parish, LA. Served as Project Engineer and provided review and QA/QC on this project, which included a comprehensive assessment of the water distribution systems on the East and West Banks of Jefferson Parish. The assessment focused on two tracks to evaluate the system: physical condition assessment and hydraulic evaluation. The structural condition was evaluated with respect to criteria such as water main age, history of breaks, water leakage, customer impact and location. A prioritized Capital Improvement Plan was developed.

Infrastructure Needs Program II (INP II) – Water Projects; West Bank & Gaza. Provided engineering support and Review and QA/QC services between 2010 and 2018 for home office design services in support of the INP II team for a range of water-related projects, totaling approximately \$92M, including wells, booster stations, ground & elevated storage tanks, transmission mains and pipelines, distribution lines, flow monitoring/metering stations and SCADA improvements. The general services included planning, engineering, design, construction, post-construction, O&M and local capacity building services.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Regina Cassanova, PE

Principal

Project Assignment:

Project Manager

Name of Firm with which associated:



Years' experience with this Firm:

13

Education: Degree(s)/Year/Specialization:

BS in Civil Engineering, University of New Orleans, 2003

Active registration: Year first registered/discipline:

2010, Civil Engineer, Louisiana (Also registered in FL and TX)

Other experience and qualifications relevant to the proposed Project:



Regina has over 23 years of extensive experience in the planning, engineering, design, construction, and management of municipal water and wastewater systems. She brings a wealth of expertise in the development of collection and distribution systems, pumping stations, and water and wastewater treatment plants. Her diverse skill set encompasses process and mechanical design, civil engineering, and recycled water treatment. Before joining Trigon, Ms. Cassanova served as a process engineer for two internationally recognized engineering firms, where she specialized in membrane technology and water/wastewater treatment. She is a licensed Professional Engineer in Louisiana, Florida, and Texas, and holds a Bachelor of Science in Civil Engineering. Regina excels in project and program management, regulatory compliance, and capital improvement programs. Her experience also includes managing projects related to drainage, storm water, roads, buildings, and facilities, as well as disaster recovery and hazard mitigation projects involving FEMA and GOHSEP. Her project portfolio also includes international work in the United States, Australia, Haiti, Jordan, Libya, and Palestine.

RELEVANT PROJECT EXPERIENCE

Mobile Home Park Waterline Distribution System Replacement; St. Tammany Parish, LA. Project Manager for Trigon's design and engineering support services related to the replacement of existing water lines, and the installation of new waterlines, in two mobile home parks in St. Tammany Parish. Services also included permitting, construction administration, and inspection of the new water distribution system for each of the mobile home parks.

Water Quality Master Plan, New Orleans, LA. Senior Engineer for assessment of the S&WB's Carrollton and Algiers Water Treatment Plants to determine physical condition of the infrastructure at each plant. Based on the assessment, the current status and forecast of issues to be addressed were developed, as well as a prioritized listing of short- and long-term needs required at the plants to address reliability and redundancy.



TEC Professional Services Questionnaire

Cassanova, continued.

Other experience and qualifications relevant to the proposed Project:

Water Hammer Hazard Mitigation Project, New Orleans, LA. Project Manager for Trigon's engineering and design work as a major subconsultant on this project to mitigate water hammer events/effects on the East Bank water distribution system by upgrading facilities at the Sewerage and Water Board of New Orleans' (S&WB) Carrollton Water Treatment Plant (WTP) complex. Primary improvements resulting from this project include modifications to finished water pump stations, plant piping/valves/meters, a new building to house Variable Frequency Drives (VFDs) and other electrical and controls equipment, power supply modifications, two (2) new elevated storage tanks, and a remote-site bladder tank installation.

East 70th Street (Creswell Road to E. Ridge Drive) Water Main Relocation, Shreveport, LA. Project Manager for the design of improvements to transfer all existing water connection and private metered service lines from an existing 3,500 LF 8-inch water main on East 70th Street to an existing parallel 20-inch water main. The existing 8-inch main was abandoned in place. Also included replacement of approximately 2,000 LF of 20-inch water main by excavation and trenchless installation. The utility relocation design was performed in coordination with a LA DOTD roadway project to widen E. 70th Street (SP102-02-0031).

Port Sulphur Water Treatment Plant Improvements; Port Sulphur, LA. Principal Engineer for the design of improvements based on a previously conducted damage assessment and the resulting report. The design considered efforts completed in-house by PPG and their private operations contractor since submittal of the Damage Assessment Report to begin some level of repairs/improvements that they have been able to accomplish. Trigon's design incorporated mechanisms such as alternate bid items to ensure PPG was able to get the most out of their available funding while still achieving the project's intended primary goals.

Water Line Replacement Program, New Orleans, LA. Served as Trigon's primary Project Manager for efforts performed under the Sewerage and Water Board of New Orleans' WLRP. The purpose of this program was to replace water lines on the East Bank of the City damaged as a result of floodwaters from Hurricane Katrina. Eligible water lines for replacement were determined based upon a FEMA and S&WB-developed pipe evaluation criteria. The resulting water line replacements had to be coordinated with the City of New Orleans Department of Public Works' Recovery Roads Program; the Department of Transportation and Development's Submerged Roads/Paths to Progress Program; and ongoing City and S&WB projects for street and sidewalk repairs, water point repairs, sewer repairs and replacement; and other relevant stakeholders' projects. Trigon was the prime engineer for improvements in the Lakeview, Lakewood, Navarre and West End neighborhoods. Ms. Cassanova worked closely with multiple S&WB staff throughout the duration of this work. Trigon also performed services as a subconsultant in six (6) other neighborhoods for which Ms. Cassanova was also Trigon's Project Manager.

Infrastructure Needs Program II (INP II) – Water Projects; West Bank & Gaza. Provided engineering support services between 2010 and 2018 for home office design services in support of the INP II team for a range of water-related projects, totaling approximately \$92M, including wells, booster stations, ground & elevated storage tanks, transmission mains and pipelines, distribution lines, flow monitoring/metering stations and SCADA improvements. The general services included planning, engineering, design, construction, post-construction, O&M and local capacity building services.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Erin Lyons-Villatoro, PE

Senior Engineer

Project Assignment:

Sr. Project Engineer

Name of Firm with which associated:



Years' experience with this Firm:

7

Education: Degree(s)/Year/Specialization:

MS in Civil Engineering, Arizona State University, 2005

BS in Agricultural Engineering, Texas A&M, 2003

Active registration: Year first registered/discipline:

2010, Civil Engineer, Texas

Other experience and qualifications relevant to the proposed Project:



Erin is a seasoned civil engineer with 17 years of experience in process design, mechanical design, and civil engineering. She has worked extensively with multidisciplinary teams to deliver successful municipal infrastructure projects, such as water treatment facilities, water transmission systems, sewer systems, and drainage systems. Erin's expertise extends beyond general civil engineering to specialized areas.

She has a robust background in water system evaluation, chemical storage and delivery systems, and low-pressure membrane systems. She is also proficient in groundwater well design and various water resources projects. Additionally, her skills include detailed project cost estimating, ensuring that projects are completed within budget and on schedule.

RELEVANT PROJECT EXPERIENCE

Port Sulphur Water Treatment Plant Improvements; Port Sulphur, LA. Project Manager/Senior Engineer for the design of improvements based on a previously conducted damage assessment and the resulting report. The design considered efforts completed in-house by PPG and their private operations contractor since submittal of the Damage Assessment Report to begin some level of repairs/improvements that they have been able to accomplish. Trigon's design incorporated mechanisms such as alternate bid items to ensure PPG was able to get the most out of their available funding while still achieving the project's intended primary goals.

Water Line Replacement Program, New Orleans, LA. Served as Project Engineer for engineering, design and construction services in a sub-consultant role for \$15M of water line improvements in six separate design and construction projects. Also includes street repair and restoration efforts, replacement of drainage and sewer systems in accordance with City, Federal DOT and other local agency requirements.



TEC Professional Services Questionnaire

Lyons-Villatoro, continued.

Other experience and qualifications relevant to the proposed Project:

District B Miscellaneous Water Improvements, Shreveport, LA. Project Engineer for detailed design in support of replacement of 4,000 linear feet of 8-inch potable water line for the City of Shreveport (COS). Responsibilities included field-confirmation of survey, coordination with existing utilities, design of new water line locations in plan and profile in accordance with COS standard specifications and details, and coordination with CAD support team.

Water Main Replacement Program for Multiple Neighborhoods in the Midtown Area of Houston, TX. Served as Project Engineer for Trigon's design and engineering support services for the replacement of existing water lines, and the installation of new waterlines, in several neighborhoods throughout the City of Houston.

Multi-Chemical Delivery and Storage System Evaluation; Houston, TX. Served as project engineer and evaluated existing chemical storage and delivery system at 350 MGD WTP and prepared preliminary engineering report assessing system compliance with regulatory requirements and condition of system components.

Mobile Home Park Waterline Distribution System Replacement; St. Tammany Parish, LA. Served as Project Engineer for Trigon's design and engineering support services for the replacement of existing water lines and the installation of new waterlines in two mobile home parks in St. Tammany Parish. Services also included permitting, construction administration, and inspection of the new water distribution system for each of the mobile home parks.

Evaluation of Municipal Drinking Water Treatment System, San Gabriel, CA. Served as project engineer and evaluated a 7,800 gallons per minute (gpm) municipal drinking water treatment system and prepared a report documenting the findings and recommendations for modifications and upgrades to the treatment processes. The performed elements of the final design to remove nitrate from groundwater. Work performed for the San Gabriel Water Company.

Watermain Replacement in Mandell Place, Montrose, Westmoreland, and Courtland Place Subdivisions; Houston, TX. Provided design and engineering support services for the replacement of existing water lines, and in some cases the installation of new waterlines, throughout several neighborhoods of the City of Houston. The neighborhoods included the Mandell Place, Montrose, Westmoreland and Courland Place Subdivisions. Prepared detailed plan and profile sheets for the new water line alignments and assisting the prime firm in coordination efforts for related work associated with the waterline construction.

Water Transmission Pipeline Design; College Station, TX. Project Engineer for the design of water transmission pipelines for Trinity River Authority. Pipeline designs included concrete, steel, and ductile iron alternatives and diameters up to 60-inch.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Barry Breaux, PE

Engineer

Project Assignment:

Project Engineer

Name of Firm with which associated:



Years' experience with this Firm:

7

Education: Degree(s)/Year/Specialization:

BS in Civil Engineering, Louisiana State University, 2017

Active registration: Year first registered/discipline:

2023, Professional Engineer, Louisiana (Also registered in TX)

Other experience and qualifications relevant to the proposed Project:



Barry is an accomplished civil engineer with over 7 years of experience. His diverse portfolio includes municipal infrastructure assessments and improvements, environmental laboratory work, testing, and sustainability initiatives. As a licensed Professional Engineer (PE) in Louisiana and Texas, Barry delivers design and engineering services across a broad spectrum of municipal infrastructure projects, such as water distribution and treatment, wastewater facilities and systems, and flood control improvements. His previous role as Trigon's on-site engineer and construction inspector at two Sewerage and Water Board of New Orleans Wastewater Treatment Plants underscores his hands-on experience and commitment to ensuring the integrity of critical infrastructure. In addition to his professional endeavors, Barry actively engages with professional associations such as the Louisiana Water Environmental Association. He also contributes his expertise to humanitarian efforts as a member of Engineers Without Borders, reflecting his dedication to leveraging engineering for positive societal impact.

RELEVANT PROJECT EXPERIENCE

Mobile Home Park Waterline Distribution System Replacement; St. Tammany Parish, LA. Served as Project Engineer for Trigon's design and engineering support services for the replacement of existing water lines and the installation of new waterlines in two mobile home parks in St. Tammany Parish. Services also included permitting, construction administration, and inspection of the new water distribution system for each of the mobile home parks.

Water Hammer Hazard Mitigation Grant Program Project; New Orleans, LA. Project Engineer for efforts to mitigate water hammer events/effects on the East Bank by upgrading facilities at the S&WB's East Bank Water Treatment Plant and power supply infrastructure at the S&WB's power plant. Includes improvements to pump stations, plant piping/valving/metering, new building to house VFDs, elevated storage tanks and remote bladder tank installations.



TEC Professional Services Questionnaire

Breaux, continued.

Other experience and qualifications relevant to the proposed Project:

Port Sulphur Water Treatment Plant Post-Hurricane Damage Assessment; Port Sulphur, LA. Served as Project Engineer for a physical evaluation and assessment of the Port Sulphur Water Treatment Plant (WTP), a 3 MGD water treatment facility In Plaquemines Parish, as well as the associated Raw Water Pump Station (RWPS). The WTP and RWPS were significantly impacted by Hurricane Ida. This project focused on identifying and documenting all damage to the facilities caused by Hurricane Ida and providing recommendations of the work necessary to restore the facilities to pre-hurricane condition.

Port Sulphur Water Treatment Plant Improvements; Port Sulphur, LA. Project Engineer for the design of improvements based on a previously conducted damage assessment and the resulting report. The design considered efforts completed in-house by PPG and their private operations contractor since submittal of the Damage Assessment Report to begin some level of repairs/improvements that they have been able to accomplish. Trigon's design incorporated mechanisms such as alternate bid items to ensure PPG was able to get the most out of their available funding while still achieving the project's intended primary goals. Serving as Construction Engineer during the implementation of the improvements.

Water Main Replacement Program for Multiple Neighborhoods in the Midtown Area of Houston, TX. Project Engineer for Trigon's design and engineering support services for the replacement of existing water lines, and the installation of new waterlines, in several neighborhoods throughout the City of Houston

Source Water Protection Plan (SWPP) for Drinking Water Treatment and Distribution Technical Optimization and Sustainability Support Services; Houston, TX. Served as Project Engineer for Trigon's tasks related to updating the Source Water Protection Plan (SWPP) for the Drinking Water Treatment and Distribution Technical Optimization and Sustainability Support Services project and supported efforts to finalize a SWPP and Wellhead Compliance Study for the City of Houston.

Engineers Road/Cazalard Road Hydrologic & Hydraulic Study and Drainage Improvements; Belle Chasse, LA. Project Engineer providing field verification and design support services for improvements to multiple drainage canals and ditches, a culvert crossing of a major roadway, subsurface drainage, and evaluation and design to construct a new drainage pump station that discharges over a levee into the Intracoastal Waterway (GIWW). Also supporting environmental permitting efforts for the project.

West Bank Wastewater Treatment Plant Piping & Valve Identification and Rehabilitation Master Plan, New Orleans, LA. Engineering support for a physical evaluation and assessment of the WBWWTP, a 20 MGD trickling filter facility. This project focused on creating an inventory of all the piping and valves, assessing the physical and operational condition of the assets, and then developing a master plan to replace and/or rehabilitate the assets to ensure long-term reliability and sustainability.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Barrett Crook, PE, LEED AP

Structural Engineer

Project Assignment:

Structural Engineering

Name of Firm with which associated:



Years' experience with this Firm:

3

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, Santa Clara University

BA, Business Administration, Santa Clara University

BA, Spanish, Santa Clara University

Active registration: Year first registered/discipline:

Registered Professional Engineer: LA (also registered in CA, CT, FL, GA, HI, ID, IO, KS, MA, MI, MS, NE, NV, NC, ND, OK, SC, VA, and WA)

Leadership in Energy and Environment Design Accredited Professional (LEED AP)

Other experience and qualifications relevant to the proposed Project:



Barrett has over 25 years of experience in engineering, planning, detailed design, construction inspection, and field operations. Throughout his career, Mr. Crook has served as Project Engineer for numerous structures, facilities, water, wastewater, and transportation projects with capital costs ranging from \$500,000 to \$41 million. His experience includes providing inspection services for active construction and natural disaster sites; structural engineering design, assessment, and drawings for public, industrial, commercial and residential projects throughout the United States; field engineering services, such as v-zone certifications and uplift/buoyancy calculations; cost estimating and budget tracking; and preparing reports and recommendations for mitigation and/or project improvements.

RELEVANT PROJECT EXPERIENCE

Port Sulphur Water Treatment Plant Post-Hurricane Damage Assessment; Port Sulphur, LA.

Structural Engineer for a physical evaluation and assessment of the Port Sulphur Water Treatment Plant (WTP), a 3 MGD water treatment facility In Plaquemines Parish, as well as the associated Raw Water Pump Station (RWPS). The WTP and RWPS were significantly impacted by Hurricane Ida. This project focused on identifying and documenting all damage to the facilities caused by Hurricane Ida and providing recommendations of the work necessary to restore the facilities to pre-hurricane condition.



TEC Professional Services Questionnaire

Crook, continued.

Other experience and qualifications relevant to the proposed Project:

Port Sulphur Water Treatment Plant Improvements Design, Port Sulphur, LA. Structural Engineer for the design of improvements based on the previously conducted damage assessment and the resulting report. The design must consider efforts completed in-house by PPG and their private operations contractor since submittal of the Damage Assessment Report to begin some level of repairs/improvements that they have been able to accomplish. Trigon's design is incorporating mechanisms such as alternate bid items to ensure PPG can get the most out of their available funding while still achieving the project's intended primary goals.

Power Plant Hazard Mitigation Grant Program Project; New Orleans, LA. Structural Engineer supporting Trigon's efforts for this approximately \$184M hazard mitigation grant program project to retrofit a unique power plant owned and operated by the S&WB. Work included repairs and upgrades to generators, fuel tanks, boilers, turbines, and electrical instrumentation & controls infrastructure, as well as ancillary facilities at the Carrollton Water Treatment Plant complex where the power plant is co-located. Work also included major renovations to a raw water pump station. Trigon staff served in major/lead roles on several projects within this program.

Willamette River Water Treatment Plant; Wilsonville, OR. Led structural design, drawings prep (all in 3D) and specifications development for the facility containing a 100-foot deep, 48-foot diameter caisson, Actiflo clarification process, ozone contactors, filters, waste washwater basin, 4-million gallon clearwell, sludge thickener, 2-story sludge dewatering building and numerous buried vaults. Worked closely with geotechnical engineer to minimize costs associated with backfilling and with architects to obtain an "aesthetically pleasing" design for the public.

Orange County Disaster Recovery Grants Funds Management; Orange County, TX. Principal Structural Engineer for activities associated with federal and state recovery grant programs for the Orange County government, including all county-owned buildings and facilities (pump stations, treatment plants, roads, and drainage infrastructure) following Hurricane Harvey. Mr. Crook performed structural damage assessments on numerous County facilities and infrastructure. Assisted in scope and cost estimate development for project delivery. Supported development of corrective action plans for numerous County facilities and infrastructure.

USAID, A-E Services for Dioxin Remediation at Bien Hoa Airbase Area; Bien Hoa, Vietnam. Principal Structural Engineer. Providing review and QA/QC services for this project to develop a Project Implementation Masterplan for engineering design, construction management implementation and related project support services for dioxin remediation at the Bien Hoa Airbase Area in Vietnam - the largest remaining hotspot of dioxin contamination in Vietnam. Recently supported completion of design efforts for Interim Measures #2, particularly related to the structural design of a Long-Term Storage Area facility (landfill) and multiple road projects throughout the airbase.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Dennis Strecker, PE
Mechanical Engineer

Project Assignment:

Mechanical Engineering

Name of Firm with which associated:



Years' experience with this Firm:

8

Education: Degree(s)/Year/Specialization:

MS, Mechanical Engineering, Tulane University, 1979
BS, Mechanical Engineering, Tulane University, 1969

Active registration: Year first registered/discipline:

1974, Civil Engineer, Louisiana

Other experience and qualifications relevant to the proposed Project:



Mr. Strecker has over 50 years of experience in mechanical engineering for major hydraulic structures such as navigation locks, floodgates; gated outlet works for dams, pumping stations and other waterway facilities, including pneumatic and hydraulic systems, HVAC systems and plumbing systems. He has worked primarily for the USACE New Orleans District on major navigation and flood control projects. Served as Senior Project Manager for the USACE IHNC Flood protection project during which he reviewed A/E mechanical design submittals for compliance with contract requirements and USACE design criteria. Mr. Strecker

has also designed operating equipment for several floodgates and performed independent technical reviews (ITR) on numerous pump station storm-proofing modifications. He has also prepared cost estimates, and mechanical portions of design memoranda.

RELEVANT PROJECT EXPERIENCE

Water Quality Master Plan; New Orleans, LA. Principal Mechanical Engineer for assessment of the S&WB's Carrollton and Algiers Water Treatment Plants to determine physical condition of the infrastructure at each plant. Based on the assessment, the current status and forecast of issues to be addressed was developed, as well as a prioritized listing of short- and long-term needs required at the plants to address reliability and redundancy.



TEC Professional Services Questionnaire

Strecker, continued.

Other experience and qualifications relevant to the proposed Project:

Floodgate Projects; Jefferson Parish, LA. Served as Mechanical Engineer for project for sector gates for Bayou Segnette and Company Canal.

IHNC, Seabrook, Carnarvan, Dupre, Segnette and Seller Gates, LA. Mr. Strecker worked on the behalf of the USACE New Orleans District as the embedded mechanical engineer reviewing and overseeing the design of mechanical and operational features for of the IHNC barrier complex including the GIWW sector and barge gates and the Bayou Beinvieu gate. Also served as lead mechanical reviewer representing the USACE for the Seabrook Gate Complex. Tasked with resolving design and construction issues on both the Carnarvan and Bayou Dupre sector gates. He prepared preliminary machinery design for Empire flood gates alternatives report, and provided ITR support for several of Jefferson Parish drainage pump station modifications.

Hydraulic Gate Hoists, USACE New Orleans District, LA. Served as Mechanical Engineer for Project. Retrofitted 18 sluice gates built immediately after Hurricane Katrina and originally designed to be operated with a crane with hydraulic driven gate hoist operated from a central hydraulic power unit.

Sector Gate Machinery for Pointe Au Chene, LA. Served as Mechanical Engineer for project. Designed hydraulic machinery for a sector gated structure. Gate operation is with a high torque low speed Haggulands motor pinion driving a rack on the sector gate. Provided the design for the gate hinge and pintles using self-aligning spherical bearings approximately 20 inches in diameter.

Replacement Machinery for IHNC Lock, LA. Mr. Strecker served as Mechanical Engineer for USACE Project. Machinery design replaced Panama Canal Linkage used on the miter gate with direct acting hydraulic cylinder and hydraulic system.

Various Lock, Floodgate and Storm Water Pump Projects, LA. Served as Lead Mechanical Engineer for the USACE New Orleans District. Designed and prepared plans and specifications for modernizing locks and floodgate gates operating machinery in the New Orleans District for hydraulic structures including Calcasieu floodgate and Calcasieu, Bayou Boeuf, Berwick, Bayou Sorrel, and Freshwater Bayou locks. Designed replacement sluice gate machinery for Harvey and IHNC locks. He designed operating machinery for Davis Pond sluice gate which included direct operating cylinders and designed sector gate machinery for Harvey floodgate. On the Harvey floodgate, Mr. Strecker designed the floating self-adjusting bottom seal. The seal design was incorporated on the Gulf Intracoastal Water Way GIWW and the Western Closure sector gates.

Drainage Pump Station Storm Proofing; New Orleans, LA. Served as ITR Mechanical Engineer Reunion for project. Performed ITR on 10 drainage pump station storm proofing contracts. Contracts included adding dewatering sump pumps to stations, adding generators, ventilation, fuel storage and required plumbing modifications.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Wagner Enrique

Designer

Project Assignment:

CADD Technician

Name of Firm with which associated:



Years' experience with this Firm:

10

Education: Degree(s)/Year/Specialization:

AAS, Computer Aided Design & Drafting, Delgado Community College, 1994

Active registration: Year first registered/discipline:

Other experience and qualifications relevant to the proposed Project:



Wagner has over 24 years of experience using AutoCAD and Microstation to develop detailed construction drawings, topographical profiles, related maps and specifications used in planning and construction of civil and structural engineering projects, including features related to water & wastewater infrastructure, flood control/protection, drainage, navigation, bridges and roadways. Besides acting in a designer role to support engineers in the preparation and/or review of drawings, sketches, maps, specifications, and other engineering data, he has also provided construction inspection services, ensuring that contract documents were adhered to during construction. Other construction-related support that he has provided includes general QA, compliance monitoring, quantity verification, documentation, CAD and working plans/drawings during construction.

RELEVANT PROJECT EXPERIENCE

Water Line Replacement Program for the Lakeview, Lakewood, Navarre and West End Neighborhoods; New Orleans, LA. Engineering, design and construction services for water line improvements in two separate design and construction projects. Also includes street repair and restoration efforts, replacement of drainage and sewer systems in accordance with City, Federal DOT and other local agency standards/requirements. Approximately \$6M of water line construction will occur. Construction is complete in Group 1 and is pending for Group 2.



TEC Professional Services Questionnaire

Enrique, continued.

Other experience and qualifications relevant to the proposed Project:

Highway 11 Water Line Improvements; Buras, LA. Included design, bid support and construction phase services for installation of 2,000' of new 8" PVC water main to replace an old cast iron water main. Pedestrian improvements funded by a federal grant were implemented following the utility work. Various public facilities (e.g., library, auditorium, school and fire station), commercial developments and residential properties are being served by these improvements.

East 70th Street (Creswell Road to E. Ridge Drive) Water Main Relocation; Shreveport, LA. Designs for improvements to transfer all existing water connection and private metered service lines from an existing 3,500 LF 8-inch water main on East 70th Street to an existing parallel 20-inch water main. The existing 8-inch main is being abandoned in place. Also included replacement of approximately 2,000 LF of 20-inch water main by excavation and trenchless installation. The utility relocation design was performed in coordination with a LA DOTD roadway project to widen E. 70th Street (SP102-02-0031).

FEMA-Funded Water Line Replacement Program, New Orleans, LA. Design services for FEMA-funded Water Line Replacement Program within five (5) different areas of the city. Construction is complete in one area, design is complete in three, and design is being finalized in the remaining area. Approximately \$12M to \$15M of construction is anticipated in these areas. Trigon is representing the owner for all work within these areas.

Engineers Road/Cazalard Road HMGP Drainage Improvements; Belle Chasse, LA. Following final approval from FEMA and GOHSEP of the Hydrologic and Hydraulic Study report, Mr. Enrique is supporting the design of drainage improvements in the vicinity of Engineers Rd and Cazalard Rd. Generally includes replacing subsurface drainage, improving multiple drainage canals and ditches, culvert crossings of a major roadway and railroads, and construction of a new drainage pump station and influent channel to replace a temporary pump currently being used by the Parish.

Hoey's Drainage Canal Improvements, Jefferson Parish, LA. CADD Designer/Construction Inspector responsible for the preparation of plans and specifications for improvements to the Hoey's Canal, a major drainage canal in Jefferson Parish that connects to the 17th Street Canal. Primary improvements consisted of paving the canal. He also performed inspection services during construction.

East Bank WWTP Effluent Pump Station Improvements; New Orleans, LA. CAD designs for improvements to Effluent Pump Station Modifications at the Sewerage & Water Board's 200 MGD East Bank Wastewater Treatment Plant (EBWWTP).



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Paul Fleming

Construction Inspector

Project Assignment:

Construction Management and Inspection

Name of Firm with which associated:



Years' experience with this Firm:

6

Education: Degree(s)/Year/Specialization:

Delgado Community College, General Studies

University of New Orleans, Environmental Engineering

Active registration: Year first registered/discipline:

Other experience and qualifications relevant to the proposed Project:



Mr. Fleming has 24 years of experience in the construction industry in the New Orleans metropolitan area for multiple water and wastewater projects, including construction/contracting, contractor oversight and resident inspection/quality assurance. He has significant experience with development and public infrastructure projects, including many involving water, sewerage and drainage infrastructure and facilities. Mr. Fleming was also previously in the US Army for five years, during which he was selected for the Air Borne Ranger Battalion.

RELEVANT PROJECT EXPERIENCE

Water Line Replacement Program (WLRP); New Orleans, LA. In support of Trigon's design work under the S&WB's FEMA-funded WLRP, Paul performed field reconnaissance efforts in multiple neighborhoods assigned to Trigon to verify existing, and collect additional, information that was incorporated into the design documents. Worked closely with Trigon's project engineers and project manager to effectively complete the tasks assigned to him.

Hazard Mitigation Grant Program (HMGP) Emergency Fuel Storage System at the Main Water Purification Plant Power Complex, Sewerage and Water Board of New Orleans, LA. Served the installation of two (2) 522,000 gallon above-ground diesel storage tanks and containment area; delivery system comprised of one (1) 15,000 gallon day tank, piping, and valves; ancillary equipment for fuel polishing, fire suppression, and oil-water separation; associated electrical, mechanical, and controls systems; and selective demolition of existing system.



TEC Professional Services Questionnaire

Fleming, continued.

Other experience and qualifications relevant to the proposed Project:

Hazard Mitigation Wind Retrofit of Parish-Owned Facilities, Plaquemines Parish, LA. Provided field inspection efforts on this project to document the status of repairs/improvements to 30 Parish-owned buildings/facilities being hardened to withstand hurricane force winds.

Drainage System Engineering Analysis; New Orleans, LA. Field Monitor responsible for providing written reports of field activities, making measurements to determine footage of cleaning and CCTV performed, communicating with third-party cleaning and CCTV Crews, and providing reports to engineer for urgent or immediate action items.

Inspection of Various Public Works Construction Projects, LA. As Lead Inspector, supervised daily construction activities, ensured compliance with approved traffic plans, and reviewed pre-construction videotapes prior to the start of construction. Verified accuracy of repair locations and approved material for use in construction, verified delivery of public notices to residents in a timely manner prior to the start of construction, communicated with residents to answer questions and resolve complaints. Enforced traffic plans and approved contractor payments. Ensured that contractors' work did not adversely affect residents and/or residents' property. Provided final restoration damage report/estimate for each assigned repair site.

Fleming Equipment and Construction; New Orleans, LA. *Supervisor:* Primary responsibilities consisted of but were not limited to: new housing construction, drainage ditches, demolition and replacement of driveways, carpentry work and operating heavy machinery. Oversaw daily operations and insured work crews were operating efficiently in all aspects of company's duties.


Various Construction Projects; New Orleans, LA. Estimated all jobs performed all work to complete to customer satisfaction. Primary duties included but not limited to general contracting, framing, sheetrock, painting, plumbing, electrical and cement work. Also included heavy equipment operations such as land clearing, primitive roads, and bush hogging.



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	Nature of Firm's Responsibility:	
Water Line Replacement Program for Multiple Neighborhoods; New Orleans, LA Sewerage and Water Board of New Orleans Susan Diehl, Project Manager 504.930.7209 	Trigon provided engineering, design, and construction phase services for the Sewerage and Water Board of New Orleans' Water Line Replacement Program. This program aimed to replace East Bank water lines damaged by Hurricane Katrina's floodwaters. Eligible lines were identified using FEMA and S&WB criteria. The project required coordination with the New Orleans Department of Public Works' Recovery Roads Program, the Department of Transportation's Submerged Roads/Paths to Progress Program, and various city and S&WB projects. Trigon acted as the prime consultant for improvements in Lakeview, Lakewood, Navarre, and West End, and as a major subconsultant for replacements in Read Blvd. East, Read Blvd. West, Village de Lest, Bayou St. John, Fairgrounds, and St. Bernard.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2022 (Actual)	\$1.6M	\$10M

PROJECT NO. 2


Project Name, Location and Owner's contact	Nature of Firm's Responsibility:	
Mobile Home Park Waterline Distribution System Replacement; St. Tammany Parish, LA St. Tammany Parish Bob Moeinian, PE – Project Manager 504.812.7748	Trigon is serving as the Prime consultant providing comprehensive design and engineering services for the replacement and installation of water lines within two (2) prominent mobile home parks situated in St. Tammany Parish. The scope of our services encompass various crucial aspects such as permitting, coordination with utility providers, diligent construction administration, and inspection procedures. This objective of this project is to align water systems at both parks into Slidell's regional water network. Despite an aggressive schedule to meet grant funding requirements, Trigon has successfully completed all assigned tasks.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Ongoing	\$426k (fee)	\$3M



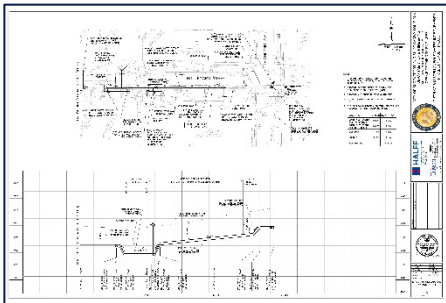
TEC Professional Services Questionnaire

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. 3

Project Name, Location and Owner's contact	Nature of Firm's Responsibility:	
East 70th Street Water Main Relocation Design – Shreveport, LA City of Shreveport Barbara Featherston, PE – Director 318.673.7660 	Trigon served as the prime engineer for a project involving the transfer of all water pipeline connections, laterals, and private metered service lines from an 8-inch to a 20-inch water main on East 70th Street from Creswell Road to East Ridge Drive. About 1,500 feet of the 20-inch main was replaced or relocated, with portions installed via horizontal directional drilling. The existing 8-inch main was abandoned after completing the transfers. This utility relocation project was closely coordinated with the Louisiana DOTD's roadway widening project (SP#102-02-0031) on Route LA 511, from Line Avenue to Fern Avenue. The project adhered to both City of Shreveport and DOTD standards.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2013 (Actual)	\$400k	\$400k

PROJECT NO. 4


Project Name, Location and Owner's contact	Nature of Firm's Responsibility:	
District B Miscellaneous Water Improvements – Shreveport, LA City of Shreveport Brandon Aillet, PE – Operations Manager 	As a major subconsultant, Trigon provided engineering design services under a Master Services Agreement for the City of Shreveport's water improvement projects. This involved replacing approximately 4,000 linear feet of potable waterlines in District B. Trigon collaborated with the prime consultant to ensure alignment with multiple waterline replacement projects. The design included 8-inch PVC water main replacements installed by open cut and jack and bore, along with associated valves, fire hydrants, fittings, and appurtenances. The project also involved removing and abandoning existing mains, restoring water services, installing water meters, and providing meter boxes. Trigon handled field surveys, utility coordination, design of new water line locations, development of opinions of probable construction costs (OPCCs) at 60%, 90%, and 100% design phases, and CAD design in accordance with COS standards.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2018 (Actual)	\$1M	\$77k



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. 5

Project Name, Location and Owner's contact	Nature of Firm's Responsibility:	
Water Hammer Hazard Mitigation Grant Program Project - New Orleans, LA Sewerage and Water Board of New Orleans Joe Becker, PE – [fmr] General Superintendent 504.666.0282	As a major sub-consultant, Trigon led efforts to mitigate water hammer effects on the East Bank water distribution system, upgrading the Sewerage and Water Board of New Orleans' (S&WB) Carrollton Water Treatment Plant and its power supply. Key improvements, estimated at \$70M, included modifications to pump stations, plant piping, valves, meters, constructing a new building for Variable Frequency Drives (VFDs) and other electrical equipment, power supply upgrades, and installing two elevated storage tanks and two remote-site bladder tanks. Trigon updated the hydraulic model for the distribution system and conducted a surge analysis to prevent water hammer damage. They led the design for two of the three construction packages and supported the third. Coordinating closely with FEMA representatives due to funding from FEMA's Hazard Mitigation Grant Program (HMGP), Trigon made key design decisions and prepared cost estimates.	
	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2023 (Actual)	\$70M	\$24M

PROJECT NO. 6


Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Port Sulphur Water Treatment Plant Post-Hurricane Damage Assessment & Improvements Design – Port Sulphur, LA Plaquemines Parish Government Ken Dugas, PE – Chief Engineer 504.279.5346	Plaquemines Parish Government (PPG) contracted Trigon Associates as the prime consultant to evaluate and assess the Port Sulphur Water Treatment Plant (WTP), a 3 MGD facility, and the associated Raw Water Pump Station (RWPS) after significant damage from Hurricane Ida. Trigon identified and documented all damage and provided recommendations for restoring the facilities to their pre-hurricane condition. Following the damage assessment, PPG selected Trigon to design the necessary improvements for the water treatment and pumping facilities.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Assessment - 2021 (Actual); Constr. ongoing	\$142k (fee)	\$142k (fee)



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. 7

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Watermain Replacement in Mandell Place, Montrose, Westmoreland, and Courtland Place Subdivisions; Houston, TX</p> <p>Houston Public Works Mumtaz Baig - Supervising Engineer 832.395.2309</p> 	<p>As a major subconsultant, Trigon provided design and engineering support services for the replacement of existing water lines, and in some cases the installation of new waterlines, throughout several neighborhoods of the City of Houston (COH).</p> <p>Trigon prepared detailed plan and profile sheets for the new water line alignments and will assist the prime firm in coordination efforts for related work associated with the waterline construction. In total, Trigon was responsible for approximately 15,000 LF of water lines and is preparing 60%, 90% and 100% Final deliverables during the final design phase.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2023 (Actual)	\$2.1M	\$750k

PROJECT NO. 8


Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Source Water Protection Plan (SWPP) for Drinking Water Treatment and Distribution Technical Optimization and Sustainability Support Services; Houston, TX</p> <p>Courtney O'Neill, PE, Vice President (AECOM, Prime Consultant) 206.388.6144</p>	<p>As a major subconsultant, Trigon helped finalize a Source Water Protection Plan (SWPP) and Wellhead Compliance Study for the City of Houston. Trigon's tasks included summarizing all relevant state (Texas) and federal (EPA) source water protection regulations, reviewing specific regulations for surface and groundwater protection, and inventorying the City's GIS data on water sources and wellheads. This inventory established the basis for understanding the origins of the community's source water and potential contaminants, helping to develop protection strategies for these areas.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2022 (Actual)	\$49k	\$23k




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. 9

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Water Quality Master Plan – New Orleans, LA Sewerage and Water Board of New Orleans. Joe Becker, PE – [fmr] General Superintendent 504.666.0282	As a major sub-consultant (handling 35% of the project), Trigon assessed the Sewerage and Water Board of New Orleans' (S&WB) two major water treatment plants: the Carrollton WTP on the East Bank and the Algiers WTP on the West Bank. The project involved evaluating the physical, operational, and process conditions of all infrastructure at both plants. Based on these assessments, Trigon documented the current status and developed a prioritized list of short- and long-term needs to address reliability and redundancy. Trigon's staff acted as technical assessors for process, mechanical, and structural items, developing rehabilitation recommendations, cost estimates, and summary reports. These assessments, completed in Fall 2014, formed the basis for S&WB's short- and long-term capital improvement programs. The rehabilitation recommendations and cost estimates were finalized in early 2015.	
	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2015 (Actual)	\$348k	\$122k

PROJECT NO. 10

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Infrastructure Needs Program Phase II (INP II), Water Projects; West Bank and Gaza USAID West Bank/Gaza Mission Anan Masri, COR Office of Water and Infrastructure amasri@usaid.gov	As a major subcontractor on the INP II, Trigon provided services for various water-related projects totaling approximately \$92M in constructed value. These projects included wells, booster stations, storage tanks, pipelines, distribution systems, and SCADA improvements. Trigon handled planning, engineering, design, construction phase services, and Operations and Maintenance (O&M) activities. Key projects included: Al Jaba' – Nuba Main Transmission Pipeline: Installation of an 11.5 km transmission pipeline benefiting approximately 60,000 people in the Hebron Governorate. This project earned Trigon a 2014 Project Achievement Award from the Construction Management Association of America. Dura Cluster Water Storage and Distribution System: Construction of two 500 cubic meter elevated tanks, one 3000 cubic meter ground storage tank, 11.2 km of transmission pipeline, and over 85 km of water distribution lines across multiple towns and villages. Well Flow Monitoring System: A \$4.9M project, the first of its kind in the West Bank, providing a computerized monitoring system for 40 water production wells, 3 booster stations, and 3 reservoirs, transmitting data to a central control room at the West Bank Water Department (WBWD) offices in Ramallah.	
	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2018 (Actual)	\$92M	\$46M




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. <i>Trigon has no active or pending litigation at the present time, and our principals and staff have never been involved in litigation regarding our professional services.</i>		
2.		
3.		
4.		

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

 **Trigon Associates, LLC (TRIGON)** is pleased to submit this Statement of Qualifications (SOQ) to Jefferson Parish (Parish) in response to your Request for Qualifications to Provide Routine Engineering Services for Water Projects in Jefferson Parish (SOQ 24-013, Resolution No. 144203).

TRIGON offers Jefferson Parish the full range of services required to successfully execute this project and our staff has an extensive amount of directly applicable experience.

1. BACKGROUND AND EXPERIENCE OF THE FIRM

TRIGON is a local woman-owned small business that is a State-certified Disadvantaged Business Enterprise (DBE), which offers engineering, consulting and management services. TRIGON's principals have over 125 years of combined experience covering a wide range of public infrastructure, utilities and facility work, including **water, water resources, sewer, coastal restoration, drainage/storm water, transportation systems, buildings and facilities, general civil and structural engineering, and site development**. This experience spans the full lifecycle of projects, from planning through design and construction, with significant experience in the management of diverse teams of consultants and contractors to successfully complete projects and programs of all sizes under budget and on time.

TRIGON's principals and staff include:

- Engineers of all disciplines registered in Louisiana, Texas, Mississippi, Alabama, Arkansas, California, Florida, New York, Oklahoma, Virginia, and the District of Columbia
- Certified Project Management Professional and Program Management Professional with the Project Management Institute
- A former Jefferson Parish Sewerage Dept. Capital Improvements Program Manager, Assistant Director and Acting Director
- Former program and project managers, design and construction managers and engineers for multiple capital improvement programs



TEC Professional Services Questionnaire

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

TRIGON'S staff have been involved in numerous projects that required the knowledge and skills necessary for execution of sewer projects similar to those undertaken by the Parish, resulting in a strong team that has experience executing work of a very similar nature to what may be required.

TRIGON proposes to provide any required supplemental surveying and geotechnical services through subconsultants. To that end, we have included qualifications for **BFM Corporation, LLC and Eustis Engineering, LLC**. Both firms have extensive experience with similar projects in the Parish and are well-known to Parish staff. Should any additional subconsultants be required, TRIGON would gain approval to utilize a firm(s) acceptable to the Parish.

2. RELATED EXPERIENCE OF TEAM

As shown in the example projects in *Section L*, as well as the resumes of our proposed project staff in *Section K*, our team has extensive and directly applicable experience and technical competence to successfully complete any work under this project. Our experience encompasses a wide range of services, including planning, hydraulic modeling, engineering, design, project and program management, construction management, permitting, controls, grant management, disaster recovery and general administration.

Areas of focus include:

- Water (master planning, CIP development, treatment, pump/booster stations, distribution systems, storage tanks/reservoirs, condition assessment)
- Wastewater (master planning, CIP development, sewer system evaluation studies, treatment, pump stations, collection/transmission systems, condition assessment, trenchless rehabilitation technologies)
- Drainage (master planning, hydraulic modeling, CIP development, pump stations, collection systems)
- Disaster Recovery (project worksheet development, version management, appeal preparation and tracking, hazard mitigation planning, general FEMA coordination)
- Stormwater (permitting, pollution prevention, water quality)
- Coastal (planning, restoration design, environmental assessments)
- Transportation (streets, streetscapes)

Examples of previous projects our members/staff have been involved with include but are not limited to:

- Water Hammer Hazard Mitigation Grant Program Project, New Orleans, LA
- Water Distribution Modeling, Jefferson Parish, LA
- Water Asset Management Plan (Master Plan), Jefferson Parish, LA
- Water Line Replacement Program – Lakeview Neighborhoods, Groups 1 and 2, New Orleans, LA
- Water Line Replacement Program – 6 Areas
- Highway 11 Water Line Improvements, Buras, LA
- Water Distribution System Assessment and Capital Improvement Plan (Master Plan), New Orleans, LA



TEC Professional Services Questionnaire

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

- Post-Katrina Water Distribution System Assessment/Rehabilitation, New Orleans, LA
- Clean Water Atlanta (SSO/CSO) Program, Atlanta, GA
- Dura Water System Improvements, West Bank, Palestine
- Drainage and Roadway Improvements on East 70th Street Water Main Relocation Design, Shreveport, LA
- Barriere Road Retention Pond and Drainage Pump Station Improvements, Plaquemines Parish, LA
- Levee, Floodwall and Drainage Project/Construction Management, New Orleans, LA
- Drainage Master Plan, New Orleans, LA
- Storm Water Pollution Prevention Plans and Spill Prevention, Control and Countermeasures, Jefferson Parish, LA
- Pump Station Control Panel Replacement, Slidell, LA
- Northshore Mall Area Pump Station and Force Main Improvements, Slidell, LA
- Post-Katrina Rehabilitation of Storm Drainage System, Slidell, LA
- Post-Katrina Emergency Debris Cleanup, New Orleans, LA
- Post-Katrina Emergency Storm Drain Cleaning, New Orleans, LA
- Sewerage Capital Improvement Program, Jefferson Parish, LA
- Sewer Pump Station Inspections, St. Bernard Parish, LA
- Sewerage System Hydraulic Model, St. Bernard Parish, LA
- Sewer System Evaluation and Rehabilitation Program, New Orleans, LA
- Post-Katrina Rehabilitation of Sewage Collection System, Slidell, LA
- East Bank Sewage Treatment Plant Evaluation, New Orleans, LA
- FY 08/09 Sewer Pump Station Rehabilitation, Slidell, LA
- Corrective Action Plan for East Bank Sewerage System (Master Plan), New Orleans, LA
- Emergency Sewer Pump Station Design, New Orleans, LA
- Emergency Sewer System Assessment Phase I and II, New Orleans, LA
- Sanitary Sewer Overflow Control Program, St. Bernard Parish, LA
- NPDES Storm Water Permitting, Jefferson Parish, LA
- Louis Morel Lane Infrastructure Improvements, Plaquemines Parish, LA
- Delta Aire Drive Infrastructure Improvements, Plaquemines Parish, LA
- Land Acquisition, Regulatory Compliance, Permitting, Grant Administration, Jefferson Parish, LA
- Streets Program/Construction Management, New Orleans, LA
- Wind Retrofit of Parish-Owned Facilities, Plaquemines Parish, LA
- Design and Construction Management Services for World's Fair, New Orleans, LA
- Environmental Investigations/Soil Sampling for USACE, New Orleans, LA
- Comprehensive Utilities Hardening, Naval Air Station, Belle Chasse, LA



TEC Professional Services Questionnaire

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

3. LOCAL PRESENCE AND KNOWLEDGE



TRIGON is based in New Orleans, and our corporate office is located on Poydras Street in the CBD—just a short drive from Jefferson Parish. Any resulting work from this contract that TRIGON is involved with would be executed from here.

Additionally, all of TRIGON's managing partners live within the New Orleans metropolitan area and have significant prior experience working with the Parish on public works and infrastructure projects. Our principals and staff are very familiar with the local, state and federal standards and guidelines for performing design and construction projects in the area, particularly to public infrastructure.

Having lived here for many years, TRIGON's principals and staff are very knowledgeable of the region and local conditions that could impact these projects.

4. LITIGATION STATEMENT

TRIGON has no active or pending litigation at the present time, and our principals and staff have never been involved in litigation regarding our professional services.

5. DBE PARTICIPATION



TRIGON is certified as a Disadvantaged Business Enterprise (DBE) under the State of Louisiana's Unified Certification Program (UCP).

Additionally, TRIGON is certified under other state and local DBE programs such as those utilized by both the City and Sewerage and Water Board of New Orleans. As such, any resulting work awarded to TRIGON would be a 100% DBE contract.

6. PRODUCTION CAPABILITIES

TRIGON employs the latest industry-standard production software to efficiently create and coordinate design documents across multiple platforms. This includes software such as Autodesk products (e.g., AutoCAD, AutoCAD Civil 3D), Bentley products (e.g., MicroStation, ProjectWise), and ESRI products (e.g., ArcGIS).

Our team is proficient in using these software packages, enabling us to develop plans and documents tailored to our clients' needs and preferences. This proficiency also enhances collaboration with other companies and team members, allowing us to seamlessly integrate survey data into our design drawings.

In addition to our CAD, GIS, and presentation capabilities, TRIGON utilizes the Microsoft Office suite for standard word processing, spreadsheets, calculations, database creation and manipulation, and slide presentations.



TEC Professional Services Questionnaire

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

7. CAPACITY FOR TIMELY COMPLETION



TRIGON is fully equipped with the professional staff, support team, and necessary equipment to successfully complete any water project promptly. Our current workload is well within our capacity, allowing us to take on new projects and mobilize immediately. In addition to the team members listed in this SOQ, we have additional staff available to meet project demands as needed.



Most of the work will be conducted from TRIGON's New Orleans office, depending on the project's specific nature and scope. Our project manager, staff, and principals will coordinate with Parish staff and conduct field visits to project sites as required to ensure successful completion. We have the expertise and commitment to execute projects of this nature efficiently and are prepared to meet with the Parish whenever necessary.

TRIGON is dedicated to delivering professional services to the Parish in a timely manner, achieving all agreed-upon goals and objectives.

8. REFERENCES

One of the best ways to judge our experience, attention to detail, quality of work and customer focus is through the personal testimonials of people that have worked with us before. The project experience included in *Section L* includes owner contact information that can be utilized as references. Additionally, we encourage contact with the following individuals to find out more about our client service & capabilities:

REFERENCES			
NAME	POSITION/TITLE	ORGANIZATION	PHONE
Billy Nungesser	Lt. Governor / [fmr] Plaquemines Parish President	State of Louisiana	225-342-7009
Blaine Clancy, PE	City Engineer	City of Slidell, LA	985-646-4270
Robert J. Morgan, Jr.	Contracting Officer	Inframark	504-392-4177
Richard Roberg	Contracting Officer	Department of Homeland Security/FEMA	504-762-2268
Bob Moeinian, PE	Interim Sewer/Water Director	St. Tammany Parish Government	504-812-7748
Nguyen Phan, PE	Chief Engineer	City of New Orleans, Department of Public Works	504-658-8000
Ali Mustapha, PE	Administrator	Caddo Levee District	318-221-2654
Autumn Permenter, PE	[fmr] Director	City of Shreveport, LA, Dept. of Water & Sewerage	318-227-6657
Ken Dugas, PE	Parish Engineer	Plaquemines Parish Government	504-297-5343
Dan Wagner	President	BLD Services, LLC	504-466-1344



TEC Professional Services Questionnaire

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

9. OUR COMMITMENT



TRIGON is fully committed to supporting Jefferson Parish and successfully executing any projects under this solicitation, should we be selected. We are excited about this opportunity and look forward to providing the Parish with exceptional service.

Should you require additional information during your review of our SOQ, please do not hesitate to contact us for an immediate response.

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

Signature:

A handwritten signature in blue ink that reads "Michelle Herbert".

Print Name: Michelle Herbert

Title: Chief Executive Officer

Date: June 21, 2024



State of
Louisiana
Secretary of
State



COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
TRIGON ASSOCIATES LLC	Limited Liability Company	NEW ORLEANS	Active

Previous Names

Business: TRIGON ASSOCIATES LLC
Charter Number: 36996431K
Registration Date: 3/16/2009

Domicile Address

1515 POYDRAS ST., STE. 930
NEW ORLEANS, LA 70112

Mailing Address

C/O MICHELLE HERBERT
1515 POYDRAS ST., STE. 930
NEW ORLEANS, LA 70112

Status

Status: **Active**
Annual Report Status: **In Good Standing**
File Date: 3/16/2009
Last Report Filed: 4/3/2024
Type: Limited Liability Company

Registered Agent(s)

Agent:	MICHELLE HERBERT
Address 1:	108 MORNING GLORY COURT
City, State, Zip:	BELLE CHASSE, LA 70037
Appointment Date:	3/4/2015

Officer(s)

Additional Officers: No

Officer:	MICHELLE L. HERBERT
Title:	Manager, Member
Address 1:	108 MORNING GLORY COURT
City, State, Zip:	BELLE CHASSE, LA 70037

Officer:	LISA F. COOKMEYER
Title:	Manager, Member
Address 1:	124 NORTH DRIVE

City, State, Zip: COVINGTON, LA 70433	
Officer:	SOUHEIL (SAL) MANSOUR
Title:	Manager, Member
Address 1:	38335 BROADOAK PLACE
City, State, Zip:	HAMILTON, VA 20158
Officer:	GREGORY KOLENOVSKY
Title:	Manager, Member
Address 1:	5906 CHESTNUT STREET
City, State, Zip:	NEW ORLEANS, LA 70115

Amendments on File (1)

Description	Date
Domestic LLC Agent/Domicile Change	6/18/2009

[Print](#)



UCP SEARCH RESULTS

[New Search](#)[Export to Excel](#)**Contractor****Business Type****Minority Type****License****Phone****FAX****Owner****Certifying Agency****E-Mail Address****Work Type****Service Type****TRIGON ASSOCIATES, LLC**

White Women Owned Business

1515 POYDRAS ST., STE. 2200

NEW ORLEANS, LA 70112

HERBERT, MICHELLE

504-585-5767

504-585-5747

MHERBERT@TRIGONASSOCIATES.COM

Louis Armstrong New Orleans International Airport

ARCHITECTURE SERVICES, ENGINEERING SERVICES, PROFESSIONAL
SERVICES, CONSTRUCTION

541618-Other Management Consulting Services

541618-Other Management Consulting Services

541330-Engineering Services

C74-Construction Management

BFM CORPORATION, LLC
TEC Professional Services Questionnaire



TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Provision of Routine Engineering Services for

Water Projects in Jefferson Parish

SOQ **24-013** | Resolution No. **144203**

B. Firm Name & Address:



BFM Corporation, LLC

15 Veterans Memorial Boulevard | Kenner LA 70062

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

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

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

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

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

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

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

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

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

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

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

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

TEC Professional Services Questionnaire

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

1.
N/A

2.

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

YES_____ NO_____ N/A

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

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

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

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

TEC Professional Services Questionnaire

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

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Ralph P. Fontcuberta, Jr., PLS

Executive Vice President / Registered Professional Land Surveyor

Project Assignment:

Registered Professional Land Surveyor

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

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

Education: Degree(s)/Year/Specialization:

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

Active Registration: Year first registered/discipline:

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

Other experience and qualifications relevant to the proposed Project:

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

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

TEC Professional Services Questionnaire

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

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

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

- Waterline Improvements, Metairie Terrace Neighborhood South (Shrewsbury Road, Amoult Road, Katlan Street, Lausat Street, Hullen Street, Claiborne Avenue & Jimco Road), JPPW No. 2023-040-WRB, Jefferson Parish, LA
- East Bank Water Treatment Plant Improvements Project (including Laser Scanning), Jefferson Parish, LA
- Waterline Improvements on North I-10 Service Road, South I-10 Service Road, Walbash Street, and Hearst Street, JPPW No. 2023-010B-WRB, Jefferson Parish, LA
- Route Topographic Survey for the Jefferson Parish Waterline Project (2023-032-WRB), Shrewsbury Neighborhood, Jefferson Parish, LA
- Central Avenue Roadway Drainage & Water Main Improvements, Jefferson Parish, LA
- Waterline Improvements on Elizabeth Avenue, Ruth Street, Kathleen Avenue, and Parkaire Drive, JPPW No. 2023-012B-WRB, Jefferson Parish, LA
- Locate 16-inch Water Line between Valve Station 18 and Valve Station 24, Grand Isle, Jefferson Parish, LA
- River Road Water Line Replacement (Phase II), Jefferson Parish, LA
- Route Topographic Survey for Jefferson Parish Waterline No. 2023-022-WRB (Estalote Avenue), Jefferson Parish, LA
- East Bank Water Treatment Plant Project - Water and Utility Line Survey, Jefferson Parish, LA
- Route Topographic Survey for Jefferson Parish Waterline Project 2023-010A-WRB, Jefferson Parish, LA
- Waterline Improvements on Colony Place, Elizabeth Avenue, Concord Avenue, Stanford Avenue, and Flagler Street, JPPW 2023-012A-WRB, Jefferson Parish, LA
- Route Topographic Survey for Jefferson Parish Waterline Replacement Project, Central Avenue, Karen Avenue, and Newman Avenue, JPPW 2023-007-WRB, Jefferson Parish, LA
- Waterline Replacement at Shrewsbury Neighborhood (2023-013B-WRB), Jefferson Parish, LA
- Route Topographic Survey for the Williams Boulevard Waterline Replacement Project (between Airline Highway and West Metairie), Jefferson Parish, LA
- Route Topographic Survey for Jefferson Parish Waterline Project 2023-030-WRB, Jefferson Parish, LA
- Route Topographic Survey for Jefferson Parish Waterline Replacement Project, Veterans Boulevard (Crestview Avenue), JPPW 2023-016A-WRB, Jefferson Parish, LA

TEC Professional Services Questionnaire

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

- Route Topographic Survey for the Jefferson Heights Water System Improvements Project, Jefferson Parish, LA
- Route Topographic Survey for Jefferson Parish Waterline Project 2023-041-WRB, Jefferson Parish, LA
- Location Survey for the 16-inch Water Line between Lafitte and Grand Isle, Jefferson Parish, LA
- River Road Water Line, Waggaman, Jefferson Parish, LA
- Lower Lafitte Waterline Stakeout, Jefferson Parish, LA
- Route Topographic & Right-of-Way Survey for Sonia Place (S. Labarre Road to Santa Ana Avenue), Jefferson Parish, LA
- Belle Chasse Water Plant Intake, Belle Chasse, Jefferson Parish, LA
- East Jefferson Water Works - River Road, Jefferson Parish, LA
- Iris Avenue Water Line Replacement, Jefferson Parish, LA
- Grand Isle Water Tower Site Project, Town of Grand Isle, Jefferson Parish, LA
- Emergency Generator Replacement at the East Bank Treatment Plant, Jefferson Parish, LA
- West Bank Water Intake Basin Hydrographic Survey, Jefferson Parish, LA
- Evans Road Waterline Repair - Mississippi River Levee Cross Section, Jefferson Parish, LA
- Water Line Location Surveying, Grand Isle, Jefferson Parish, LA
- Grand Isle Water Main Location, Jefferson Parish, LA
- Water Main Installation, Live Oak Boulevard, West Bank, Jefferson Parish, LA
- East Bank Water Plant Intake Basin Hydrographic Survey, Jefferson Parish, LA
- Fifi Island/Bayou Rigaud Water Line Location, Grand Isle, Jefferson Parish, LA
- Gretna Water Tower, Jefferson Parish, LA
- Canal No. 17 Bank Stabilization Phase II, Jefferson Parish, LA
- Channel Repair, Phase II, Construction Unit No. 3 (West Bank), Jefferson Parish, LA
- Channel Repair, Phase II, Construction Unit No. 2 (East Bank), Jefferson Parish, LA
- Central Avenue Project (including Utilities), Metairie, Jefferson Parish, LA
- Lapalco Blvd. Improvements (Segnette to Tanglewood); 96-019B-RBI, Jefferson Parish, LA
- Oakwood/Terrytown Drainage Improvements, Jefferson Parish, LA
- Upper Kraak Pump Station, Jefferson Parish, LA
- Clearview Parkway & Airline Boulevard Intersection, Jefferson Parish, LA
- Severn Corridor (Subsurface Utility Engineering (SUE)), Metairie, Jefferson Parish, LA
- Lasalle Rest Room Building, Jefferson Parish, LA
- Citrus Boulevard Improvements, Jefferson Parish, LA

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Chad M. Poché, P.E.

Executive Vice President / Registered Professional Geotechnical Engineer

Project Assignment:

Engineering Liaison

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

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

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

Education: Degree(s)/Year/Specialization:

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

Active Registration: Year first registered/discipline:

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

Other experience and qualifications relevant to the proposed Project:

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

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

TEC Professional Services Questionnaire

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

Waterline Improvements, Metairie Terrace Neighborhood South, JPPW Project No. 2023-040-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the Jefferson Parish Waterline Project 2023-016A-WRB, which involves a total of approximately 9,100 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$88,400 (fee); 2023)

Waterline Improvements on North 1-10 Service Road, South I-10 Service Road, Walbash Street, and Hearst Street, JPPW Project No. 2023-010B-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 8,100 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$88,400 (fee); 2023)


Route Topographic Survey for Jefferson Parish Waterline Project (2023-032-WRB), Shrewsbury Neighborhood, Jefferson Parish, LA. BFM prepared a Route Topographic Survey for the project, which involved Shrewsbury Neighborhood: L&A Road, Access Road, K&B Road, McDermott Road, and Earhart Expressway; a total of approximately 8,600 lf. Scope includes establishing a baseline, setting a CBM and establishing TBMs. Existing improvements & utilities were located. BFM determined depth, size, and type of pipes and locate and identified trees. (BFM provided surveying services on multiple projects as part of a larger overall Waterline Improvements Program for Jefferson Parish.) (\$88,140 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project No. 2023-022-WRB (Estalote Avenue), Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project (2023-022-WRB) in Jefferson Parish. The limits of survey involved the area along Estalote Avenue, a total of approximately 8,500 linear feet, including intersecting streets. The survey includes establishing a baseline and establishing Temporary Benchmarks (TBMs). Existing improvements and utilities were located. BFM determined the depth, size, and type of pipes and locate and identified trees. Spot elevations were also taken. (\$84,280 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-010A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 7,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$78,100 (fee); 2023)

Waterline Improvements on Colony Place, Elizabeth Avenue, Concord Avenue, Stanford Avenue, and Flagler Street, JPPW 2023-012A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 7,900 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$77,840 (fee); 2023)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Gary J. Lambert, Jr., PLS Vice President / Registered Professional Land Surveyor	
Project Assignment:	
Project Manager/Drafting Supervisor	
Name of Firm with which associated:	
 Professional Land & Hydrographic Surveying	
Years' experience with this Firm:	
6 years (joined BFM in 2018); 13 years total (2011)	<i>BFM Corporation, LLC 2018 to present</i> <i>Riverlands Surveying 2016 to 2018</i> <i>Bertucci Contracting 2011 to 2016</i>
Education: Degree(s)/Year/Specialization:	
B.S., 2018, Geomatics, Nicholls State University B.S., 2014, Construction Management, Louisiana State University	
Active Registration: Year first registered/discipline:	
2021, Professional Land Surveyor (Louisiana No. 5929)	
Other experience and qualifications relevant to the proposed Project:	
<p>Gary J. Lambert, Jr., is a registered Professional Land Surveyor in Louisiana and provides Project Management and Drafting Oversight for BFM Corporation. He is the first point of contact for clients on technical matters, scheduling, and deliverables for project work, and conducts meetings with engineering, architectural, and government officials to discuss various project needs. His project work has encompassed all manner of surveying services, from basic home lots to 100+ acre tract boundary surveys.</p> <p>In the field, Mr. Lambert has provided services as a Survey Crew Chief, using both traditional and robotic surveying methods, since the start of his professional career, and has experience with Leica, Hypack, AutoCAD, AutoCAD 3D, Trimble, and RTK surveying technologies. He further trains employees in the use of an aerial drone, laser scanner, and remote-controlled hydrographic survey boat. This survey experience includes topographic, boundary, ALTA/NSPS, FEMA, and various construction surveying. Mr. Lambert has also conducted hydrographic surveys in the Mississippi River and various other bodies of water throughout the Gulf Coast area.</p> <p>Mr. Lambert has completed Basic OSHA Training and holds license with the Gulf Coast Safety Council (08SSV, ID429523).</p>	

TEC Professional Services Questionnaire

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

East Bank Water Treatment Plant Improvements, Jefferson Parish, LA. BFM's surveying services, as part of Task Order No. 3 of the project, involved BFM's location of exposed water or utility lines after said lines were excavated by another firm. Horizontal location and vertical elevation, at top of pipe, was recorded along with the pipe size and type. Field data was processed to add to the existing topographic survey, previously executed by BFM. (\$19,703 (fee); 2018)

Waterline Improvements on Elizabeth Avenue, Ruth Street, Kathleen Avenue, and Parkaire Drive, JPPW Project No. 2023-012B-WRB, Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project, which involved multiple street locations (Elizabeth Avenue, Ruth Street, Linwood Avenue, Loraine Street, Kathleen Avenue, and Parkaire Drive) in Jefferson Parish. The limits of survey involve the noted routes and are to be within the entire street rights-of-way of all limits indicated as well as 10 feet beyond the apparent right-of-way on each side, totaling approximately 5,900 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing surveying services on multiple projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$55,300 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Replacement Project, Central Avenue, Karen Avenue, and Newman Avenue, JPPW 2023-007-WRB, Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project (approximately 5,650 linear feet). The project will establish a baseline throughout the project, a Construction Benchmark (CBM), and set Temporary Benchmarks (TBMs) along each route. Existing improvements and utilities will be located. BFM will determine depth, size, and type of pipes and locate and identify trees. BFM will also locate property corners to establish the rights-of-way. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$67,740 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-030-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 4,600 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$59,300 (fee); 2023)

Route Topographic & Right-of-Way Survey for Sonia Place, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 1400 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$15,120 (fee); 2023)

Central Avenue Roadway Drainage & Water Main Improvements, Jefferson Parish, LA. BFM Corporation provided surveying services for the project; the scope of which consisted of verifying pipe sizes and inverts for drainage structures along the west side (only) of Central Avenue, which was located during a previous BFM project. BFM located any new drainage structures within the previous survey limits and determined the depth, size, and type of pipes within each drainage structure which were shown on the previous survey. This included catch basins, drop inlets, and ditch culvert pipes. Alterations/updates were noted on an updated version of the previous survey. (\$2,850 (fee); 2022)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Christopher Lemley
Field Operations Manager/Survey Crew Chief

Project Assignment:

Field Operations Manager/Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

10 years (joined BFM in 2014); BFM Corporation, LLC | 2014 to present
18 years total (2006) G.E.C., Inc. | 2010 to 2014
Krebs, LaSalle, LeMieux Consultants, Inc. | 2006 to 2010

Education: Degree(s)/Year/Specialization:

High School Diploma

Active Registration: Year first registered/discipline:

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

Other experience and qualifications relevant to the proposed Project:

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

Route Topographic Survey for Jefferson Parish Waterline Replacement Project, Central Avenue, Karen Avenue, and Newman Avenue, JPPW 2023-007-WRB, Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project (approximately 5,650 linear feet). The project will establish a baseline throughout the project, a Construction Benchmark (CBM), and set Temporary Benchmarks (TBMs) along each route. Existing improvements and utilities will be located. BFM will determine depth, size, and type of pipes and locate and identify trees. BFM will also locate property corners to establish the rights-of-way. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$67,740 (fee); 2023)

TEC Professional Services Questionnaire

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

Route Topographic Survey for Jefferson Parish Waterline Project No. 2023-022-WRB (Estalote Avenue), Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project (2023-022-WRB) in Jefferson Parish. The limits of survey involved the area along Estalote Avenue, a total of approximately 8,500 linear feet, including intersecting streets. The survey includes establishing a baseline and establishing Temporary Benchmarks (TBMs). Existing improvements and utilities were located. BFM determined the depth, size, and type of pipes and locate and identified trees. Spot elevations were also taken. (\$84,280 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-030-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 4,600 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$59,300 (fee); 2023)

Route Topographic & Right-of-Way Survey for Sonia Place, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 1400 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$15,120 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-010A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 7,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$78,100 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-016A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the Jefferson Parish Waterline Project 2023-016A-WRB, which involves a total of approximately 5,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$55,740 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-041-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 4,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$44,200 (fee); 2023)

Waterline Replacement at Shrewsbury Neighborhood (2023-013B-WRB), Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves Shrewsbury Road and associated side streets, a total of approximately 6,650 lf. The scope of work involves establishment of a baseline along each route, establishing Temporary Benchmarks (TBM) at 500 ft. intervals. Existing improvements and utilities will be located. BFM will determine depth, size, and type of pipes and locate and identify trees. (\$66,170 (fee); 2023)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
John Philip Thayer Procurement Director (Proposals & Project Management Support)	
Project Assignment:	
Project Management Support	
Name of Firm with which associated:	
 BFM CORPORATION, LLC Professional Land & Hydrographic Surveying	
Years' experience with this Firm:	
16 years (joined BFM in 2008); 17 years total (2007)	<i>BFM Corporation, LLC 2008 to present</i> <i>Delle Land Surveying 2007 to 2008</i>
Education: Degree(s)/Year/Specialization:	
Certificate, 2015, Land Surveying Services B.S., 2007, Physical Education, Trevecca Nazarene University	
Active Registration: Year first registered/discipline:	
N/A	
Other experience and qualifications relevant to the proposed Project:	
<p>Phil Thayer serves as BFM's Procurement Director, providing proposal preparation and Project Management Support, having considerable experience in field surveying services, including ALTA/as-built surveying, construction layout, boundary, topographic, cross-sections, GPS use, and numerous other surveying types.</p> <p>Route Topographic Survey for Jefferson Parish Waterline Replacement Project, Central Avenue, Karen Avenue, and Newman Avenue, JPPW 2023-007-WRB, Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project (approximately 5,650 linear feet). The project will establish a baseline throughout the project, a Construction Benchmark (CBM), and set Temporary Benchmarks (TBMs) along each route. Existing improvements and utilities will be located. BFM will determine depth, size, and type of pipes and locate and identify trees. BFM will also locate property corners to establish the rights-of-way. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$67,740 (fee); 2023)</p> <p>Waterline Improvements on Elizabeth Avenue, Ruth Street, Kathleen Avenue, and Parkaire Drive, JPPW Project No. 2023-012B-WRB, Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project, which involved multiple street locations (Elizabeth Avenue, Ruth Street, Linwood Avenue, Loraine Street, Kathleen Avenue, and Parkaire Drive) in Jefferson Parish. The limits of survey involve the noted routes and are to be within the entire street rights-of-way of all limits indicated as well as 10 feet beyond the apparent right-of-</p>	

TEC Professional Services Questionnaire

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

way on each side, totaling approximately 5,900 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing surveying services on multiple projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$55,300 (fee); 2023)

East Bank Water Treatment Plant Improvements, Jefferson Parish, LA. BFM's surveying services, as part of Task Order No. 3 of the project, involved BFM's location of exposed water or utility lines after said lines were excavated by another firm. Horizontal location and vertical elevation, at top of pipe, was recorded along with the pipe size and type. Field data was processed to add to the existing topographic survey, previously executed by BFM. (\$19,703 (fee); 2018)

Lower Lafitte Waterline, Jefferson Parish, LA. BFM provided surveying services associated with the location of a 16 inch plastic waterline in the Barataria Waterway as part of the Lower Lafitte Shoreline Stabilization project. BFM provided stakeout surveying for the project, staking the water line every 50 feet (with 4 ft. wooden stakes). Certain areas were very deep and the line was not accurately located in this area. BFM set markers where approximate locations were based on the areas where the line was found. (\$38,205 (fee); 2017)

Belle Chasse Water Plant Intake, Belle Chasse, Jefferson Parish, LA. BFM provided bathymetric, boundary and topographic surveying services for the project. Improvements on the site were located, as well as visible above-ground utilities & underground utilities with visible surface evidence. Existing storm sewer and sanitary sewers were located using top of casing; invert elevations were provided on the survey. Bathymetric surveys were tied to the U.S. Army Corps of Engineers baseline. Deliverables included indelible prints and AutoCAD DWG format drawing files. (\$14,804 (fee); 2016)

Emergency Generator Replacement at the East Bank Treatment Plant, Jefferson Parish, LA. BFM prepared a topographic survey of the area surrounding the proposed site for the emergency generators. (\$5,888 (fee); 2012)

Iris Avenue Water Line Replacement, Jefferson Parish, LA. BFM provided topographic surveying services for the Iris Avenue Water Line Replacement. This included the area of Iris Avenue from River Road to Jefferson Highway, on Lance Street and Jeanette Streets from Iris A venue to Brooklyn A venue. As executed, the surveys extended from right of way to right of way. (\$18,493 (fee); 2011)

East Bank Water Plant Intake Basin Hydrographic Survey, Jefferson Parish, LA. BFM Corporation provided hydrographic surveying for the project. Our scope of services included soundings into the Mississippi River (to a -50 elevation); this element included location of the intake structure and elevations inside the structure as well as on the intake pipes. BFM further located the discharge ditch on the down river side of the structure. Deliverables included an indelible print and AutoCAD DWG files. (\$4,975 (fee); 2010)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Dawn Hoffman Researcher/Archivist	
Project Assignment:	
Researcher/Archivist	
Name of Firm with which associated:	
 BFM CORPORATION, LLC Professional Land & Hydrographic Surveying	
Years' experience with this Firm:	
15 years (joined BFM in 2009); 27 years total (1997)	<i>BFM Corporation, LLC 2009 to present</i> <i>Fluor Corporation 2007 to 2009</i> <i>Geographic Computer Technologies, LLC 2000 to 2007</i>
Education: Degree(s)/Year/Specialization:	
A.D., 1999, Computer-Aided Drafting, Southeast College of Technology Certificate, 2003, Introduction to ArcGIS, Louisiana State University	
Active Registration: Year first registered/discipline:	
N/A	
Other experience and qualifications relevant to the proposed Project:	
<p>Dawn Hoffman serves as BFM's primary researcher and has more than 25 years of experience in this field. She is extremely knowledgeable with researching in various parishes and cities.</p> <p>Route Topographic Survey for Jefferson Parish Waterline Project 2023-030-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 4,600 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$59,300 (fee); 2023)</p> <p>East Bank Water Treatment Plant Improvements Project (including Laser Scanning), Jefferson Parish, LA. BFM provided surveying services for Tasks 1 (topographic) and 2 (boundary) of the project, part of a major improvements project for the East Bank Water Treatment Plant located at 3600 Jefferson Highway in Jefferson Parish. This included executing a 3D Laser Scan for an As-Built Utilities survey. Draft surveying (in conjunction with the Prime Firm) as well as provision of final survey were prepared as directed. (\$166,230 (fee); 2017)</p> <p>Grand Isle Water Tower Site Project (DPW Proj. 2008-018-WR), Town of Grand Isle, Jefferson Parish, LA. BFM Corporation provided a topographic survey; scope included establishing a TBM, preparing a boundary survey, taking elevations (at 25 ft. intervals) with spot elevations on paving or other hard surfaces. Location of improvements were plotted within the designated limits of survey. Utilities and piping were located, as was existing storm sewer and sanitary sewer structures.</p>	

TEC Professional Services Questionnaire

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

Specimen trees were all also located. BFM provided follow-up surveying services for the project, an extension of DPW Project 2008-018-WR. Deliverables included indelible prints and in AutoCAD DWG format. (\$15,612 (fee); 2012)

East Jefferson Water Works – River Road, Jefferson Parish, LA. BFM's surveying services for the project involved the location of existing water lines/pipes for the East Jefferson Water Works located on River Road in Jefferson Parish. (\$2,070 (fee); 2017)

Waterline Improvements on Colony Place, Elizabeth Avenue, Concord Avenue, Stanford Avenue, and Flagler Street, JPPW 2023-012A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 7,900 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$77,840 (fee); 2023)

Waterline Improvements on North 1-10 Service Road, South 1-10 Service Road, Walbash Street, and Hearst Street, JPPW Project No. 2023-010B-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 8,100 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$88,400 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-010A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 7,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$78,100 (fee); 2023)

Location Survey for the 16-inch Water Line between Lafitte and Grand Isle, Jefferson Parish, LA. BFM located the 16-inch water line in the exposed areas from Sta. 0+00 on the north bank of Bayou Rigolettes to the south bank of Bayou Rigaud in Grand Isle, Louisiana. In a previous project for the Parish (BFM Proj 7317; Fifi Island/Bayou Rigaud Water Line Location in 2010), BFM located both the upper & lower portions of the 16-inch water line. This left the approximate location of the area previously located on Fifi Island; 138,776 feet or 25.79 miles. For the survey, probing was done utilizing a jet probe system developed by BFM Corporation and the locations were made with RTN (Real Time Network) GPS. The Real Time Network is maintained by Louisiana State University and allowed for sub-centimeter level accuracy with GPS. This data was included with deliverables in AutoCAD DWG format and in ASCII text format for integration into the Parish GIS system. (\$363,080 (fee); 2013)

Iris Avenue Water Line Replacement, Jefferson Parish, LA. BFM provided topographic surveying services for the Iris Avenue Water Line Replacement. This included the area of Iris Avenue from River Road to Jefferson Highway, on Lance Street and Jeanette Streets from Iris A venue to Brooklyn A venue. As executed, the surveys extended from right of way to right of way. (\$18,493 (fee); 2011)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Anthony Watson

CADD Technician (AutoCADD Drafting Services)

Project Assignment:

CADD Technician (AutoCADD Drafting Services)

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

13 years (joined BFM in 2011);

33 years total (1991)

BFM Corporation, LLC | 2011 to present

Krebs LaSalle Lemieux / GEC | 2008 to 2011

Doug Connally and Associates Land Surveying (Dallas, TX) | 1995-2008

Electrician | 1991 to 1995

City of Plano TX (Part-Time Drafting Services) | 1991

Education: Degree(s)/Year/Specialization:

Coursework - CAD, Avatech Solutions, Los Colinas, TX

Active Registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

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

Route Topographic Survey for Jefferson Parish Waterline Project 2023-030-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 4,600 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$59,300 (fee); 2023)

Route Topographic & Right-of-Way Survey for Sonia Place, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 1400 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$15,120 (fee); 2023)

TEC Professional Services Questionnaire

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

Route Topographic Survey for Jefferson Parish Waterline Project 2023-010A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 7,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$78,100 (fee); 2023)

Central Avenue Roadway Drainage & Water Main Improvements, Jefferson Parish, LA. BFM Corporation provided surveying services for the project; the scope of which consisted of verifying pipe sizes and inverts for drainage structures along the west side (only) of Central Avenue, which was located during a previous BFM project. BFM located any new drainage structures within the previous survey limits and determined the depth, size, and type of pipes within each drainage structure which were shown on the previous survey. This included catch basins, drop inlets, and ditch culvert pipes. Alterations/updates were noted on an updated version of the previous survey. (\$2,850 (fee); 2022)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-016A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the Jefferson Parish Waterline Project 2023-016A-WRB, which involves a total of approximately 5,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$55,740 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-041-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 4,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$44,200 (fee); 2023)

Waterline Improvements on North I-10 Service Road, South I-10 Service Road, Walbash Street, and Hearst Street, JPPW Project No. 2023-010B-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 8,100 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$88,400 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project No. 2023-022-WRB (Estalote Avenue), Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project (2023-022-WRB) in Jefferson Parish. The limits of survey involved the area along Estalote Avenue, a total of approximately 8,500 linear feet, including intersecting streets. The survey includes establishing a baseline and establishing Temporary Benchmarks (TBMs). Existing improvements and utilities were located. BFM determined the depth, size, and type of pipes and locate and identified trees. Spot elevations were also taken. (\$84,280 (fee); 2023)

Review and Update Survey Plats for the Lafitte Area Hurricane Protection Levee, Lafitte, Jefferson Parish, LA. BFM provided surveying services to review and update survey plats for the Lafitte Area Hurricane Protection Levee. BFM has provided survey updates for the site as needed for over a decade. (\$2,600 (fee); 2016)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Curtis "Jay" Barrios
Survey Crew Chief

Project Assignment:

Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

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

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

Education: Degree(s)/Year/Specialization:

High School Diploma

Active Registration: Year first registered/discipline:

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

Other experience and qualifications relevant to the proposed Project:

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

Route Topographic Survey for Jefferson Parish Waterline Project (2023-032-WRB), Shrewsbury Neighborhood, Jefferson Parish, LA. BFM prepared a Route Topographic Survey for the project, which involved Shrewsbury Neighborhood: L&A Road, Access Road, K&B Road, McDermott Road, and Earhart Expressway; a total of approximately 8,600 lf. Scope includes establishing a baseline, setting a CBM and establishing TBMs. Existing improvements & utilities were located. BFM determined depth, size, and type of pipes and locate and identified trees. (BFM provided surveying services on multiple projects as part of a larger overall Waterline Improvements Program for Jefferson Parish.) (\$88,140 (fee); 2023)

River Road Water Line Replacement, Jefferson Parish, LA. As directed by the Project Engineer, BFM provided topographic surveying services for the project, which extended from Rivet Boulevard to Willwood Drive (approximately 14,000 linear feet plus 50-foot intersections). This project was part of the Louisiana Department of Health and Hospitals (LDHH) Clean Drinking Water loan

TEC Professional Services Questionnaire

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

program. The scope of work executed by BFM included establishing a baseline parallel with the right of way, setting TBMs, and plotting spot elevations. Improvements and utilities were located and plotted within the designated limits of survey. Boundary corners were located along the route in order to assist in determining widths of any existing rights of way. Trees on site (over 4-inches in diameter) were also located. (\$84,700 (fee); 2015)

Route Topographic Survey for Jefferson Parish Waterline Project No. 2023-022-WRB (Estalote Avenue), Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project (2023-022-WRB) in Jefferson Parish. The limits of survey involved the area along Estalote Avenue, a total of approximately 8,500 linear feet, including intersecting streets. The survey will include establishing a baseline and establishing Temporary Benchmarks (TBMs). Existing improvements and utilities will be located. BFM will determine depth, size, and type of pipes and locate and identify trees. Spot elevations will also be taken. (\$84,280 (fee); 2023)

Route Topographic Survey for Jefferson Parish Waterline Project 2023-010A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 7,000 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. (\$78,100 (fee); 2023)

Waterline Improvements on Colony Place, Elizabeth Avenue, Concord Avenue, Stanford Avenue, and Flagler Street, JPPW 2023-012A-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 7,900 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$77,840 (fee); 2023)

Waterline Improvements on North I-10 Service Road, South I-10 Service Road, Walbash Street, and Hearst Street, JPPW Project No. 2023-010B-WRB, Jefferson Parish, LA. BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 8,100 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$88,400 (fee); 2023)

Location Survey for the 16-inch Water Line between Lafitte and Grand Isle, Jefferson Parish, LA. BFM located the 16-inch water line in the exposed areas from Sta. 0+00 on the north bank of Bayou Rigolettes to the south bank of Bayou Rigaud in Grand Isle, Louisiana. In a previous project for the Parish (BFM Proj 7317; Fifi Island/Bayou Rigaud Water Line Location in 2010), BFM located both the upper & lower portions of the 16-inch water line. This left the approximate location of the area previously located on Fifi Island; 138,776 feet or 25.79 miles. For the survey, probing was done utilizing a jet probe system developed by BFM Corporation and the locations were made with RTN (Real Time Network) GPS. The Real Time Network is maintained by Louisiana State University and allowed for sub-centimeter level accuracy with GPS. This data was included with deliverables in AutoCAD DWG format and in ASCII text format for integration into the Parish GIS system. (\$363,080 (fee); 2013)

TEC Professional Services Questionnaire

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

PROJECT NO. 1

Project Name, Location, and Owner's contact information:		Nature of Firm's Responsibility:	
Waterline Improvements, Metairie Terrace Neighborhood South (Shrewsbury Road, Amoult Road, Katlan Street, Lausat Street, Hullen Street, Claiborne Avenue & Jimco Road), JPPW No. 2023-040-WRB, Jefferson Parish, Louisiana GIS Engineering 935 Gravier Street Suite 600 New Orleans LA 70112 Kyle Galloway, P.E., 504-264-3504 kgalloway@gisy.com		BFM Corporation was selected to provide a Route Topographic Survey for the Jefferson Parish Waterline Project 2023-016A-WRB, which involves a total of approximately 9,100 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish.	
Completion Date (Actual or estimated:)		Estimated Cost:	
		Entire Project:	Work for which Firm was Responsible:
September 2023		N/A	\$88,400 (fee)

PROJECT NO. 2

Project Name, Location, and Owner's contact information:		Nature of Firm's Responsibility:	
East Bank Water Treatment Plant Improvements Project (including Laser Scanning), Jefferson Parish, Louisiana Stantec 1340 Poydras Street, Suite 1420 New Orleans LA 70112 Jeffrey Sapia, P.E., 225-926-3991 jeffrey.sapia@stantec.com		BFM Corporation provided surveying services for Tasks 1 (topographic) and 2 (boundary) of the project, part of a major improvements project for the East Bank Water Treatment Plant located at 3600 Jefferson Highway in Jefferson Parish. This included executing a 3D Laser Scan for an As-Built Utilities survey. Draft surveying (in conjunction with the Prime Firm) as well as provision of final survey were prepared as directed.	
Completion Date (Actual or estimated:)		Estimated Cost:	
		Entire Project:	Work for which Firm was Responsible:
June 2017		N/A	\$166,230 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Waterline Improvements on North I-10 Service Road, South I-10 Service Road, Walbash Street, and Hearst Street, JPPW No. 2023-010B-WRB, Jefferson Parish, Louisiana Pivotal Engineering 1515 Poydras Street Suite 1150 New Orleans LA 70112 Yoseph Shifare, P.E., 504-939-2693 yshifare@pivotaleng.com	BFM Corporation was selected to provide a Route Topographic Survey for the project, which involves a total of approximately 8,100 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing additional surveying on additional projects as part of a larger overall Waterline Improvements Program for Jefferson Parish.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2023	N/A	\$88,400 (fee)

PROJECT NO. 4		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Route Topographic Survey for the Jefferson Parish Waterline Project (2023-032-WRB), Shrewsbury Neighborhood, Jefferson Parish, Louisiana Burk-Kleinpeter, Inc. 4176 Canal Street New Orleans LA 70119 Henry M. Picard, III, P.E., 504-486-5901 hpicard@bkusa.com	BFM Corporation prepared a Route Topographic Survey for the project, which involved Shrewsbury Neighborhood: L&A Road, Access Road, K&B Road, McDermott Road, and Earhart Expressway; a total of approximately 8,600 lf. Scope includes establishing a baseline, setting a CBM and establishing TBMs. Existing improvements & utilities were located. BFM determined depth, size, and type of pipes and locate and identified trees. (BFM provided surveying services on multiple projects as part of a larger overall Waterline Improvements Program for Jefferson Parish.)	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2023	N/A	\$88,140 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Central Avenue Roadway Water Main & Drainage Improvements, Jefferson Parish, Louisiana Jefferson Parish Department of Capital Projects 1221 Elmwood Park Blvd Ste 906 Jefferson LA 70123 Neil Schneider, 504-736-6833 nschneider@jeffparish.net	BFM Corporation provided surveying services for the project; the scope of which consisted of verifying pipe sizes and inverts for drainage structures along the west side (only) of Central Avenue, which was located during a previous BFM project. BFM located any new drainage structures within the previous survey limits and determined the depth, size, and type of pipes within each drainage structure which were shown on the previous survey. This included catch basins, drop inlets, and ditch culvert pipes. Alterations/updates were noted on an updated version of the previous survey.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
April 2023	N/A	\$2,850 (fee)

PROJECT NO. 6		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Waterline Improvements on Elizabeth Avenue, Ruth Street, Kathleen Avenue, and Parkaire Drive, JPPW No. 2023-012B-WRB, Jefferson Parish, Louisiana Kyle Associates, LLC 638 Village Lane North Mandeville LA 70471 Kevin M. Drane, P.E., 985-727-9377 kdrane@kyleassociates.net	BFM Corporation was selected to prepare a Route Topographic Survey for the project, which involved multiple street locations (Elizabeth Avenue, Ruth Street, Linwood Avenue, Loraine Street, Kathleen Avenue, and Parkaire Drive) in Jefferson Parish. The limits of survey involve the noted routes and are to be within the entire street rights-of-way of all limits indicated as well as 10 feet beyond the apparent right-of-way on each side, totaling approximately 5,900 linear feet. The scope of work involves establishment of a baseline along each route, establishing TBMs, spot elevations, location of improvements, utilities, pipes, and natural elements. BFM is providing surveying services on multiple projects as part of a larger overall Waterline Improvements Program for Jefferson Parish.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2023	N/A	\$55,300 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Locate 16-inch Water Line between Valve Station 18 & Valve Station 24, Grand Isle, Jefferson Parish, Louisiana Jefferson Parish Water Department 1221 Elmwood Park Blvd Ste 909 Jefferson LA 70123 R. Douglas Vincent, P.E., 504-838-4363 JPWater@jeffparish.net	The purpose of the survey was to locate the 16-inch water line between Valve Station 18 and Valve Station 24. The length of this segment was approximately 57,400 feet. Survey probing was done utilizing a jet probe system developed by BFM Corporation and the locations were made with RTN (Real Time Network) GPS. The Real Time Network is maintained by Louisiana State University and allowed for sub-centimeter level accuracy with GPS. This data was included with deliverables in AutoCAD DWG format and in ASCII text format for integration into the Parish GIS system. BFM further prepared an estimate for the Parish to provide a location survey for the water line after it was lowered.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
November 2014	N/A	\$133,444 (fee)

PROJECT NO. 8		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
River Road Water Line Replacement (Phase II), Jefferson Parish, Louisiana Digital Engineering 527 W Esplanade Ave Ste 200 Kenner LA 70065 Frank T. Liang, P.E., 504-468-7515 fliang@deii.net	As directed by the Project Engineer, BFM provided topographic surveying services for the project, which extended from Rivet Boulevard to Willswood Drive (approximately 14,000 linear feet plus 50-foot intersections). This project was part of the Louisiana Department of Health and Hospitals (LDHH) Clean Drinking Water loan program. The scope of work executed by BFM included establishing a baseline parallel with the right of way, setting TBMs, and plotting spot elevations. Improvements and utilities were located and plotted within the designated limits of survey. Boundary corners were located along the route in order to assist in determining widths of any existing rights of way. Trees on site (over 4-inches in diameter) were also located.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2015	N/A	\$84,700 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
Route Topographic Survey for Jefferson Parish Waterline Project No. 2023-022-WRB (Estalote Avenue), Jefferson Parish, Louisiana H. Davis Cole & Associates, Inc. 1340 Poydras Street Suite 1850 New Orleans LA 70112 Mike D'Angelo, 504-836-2020 mike@hdaviscole.com	BFM Corporation was selected to prepare a Route Topographic Survey for the project (2023-022-WRB) in Jefferson Parish. The limits of survey involved the area along Estalote Avenue, a total of approximately 8,500 linear feet, including intersecting streets. The survey includes establishing a baseline and establishing Temporary Benchmarks (TBMs). Existing improvements and utilities were located. BFM determined the depth, size, and type of pipes and locate and identified trees. Spot elevations were also taken.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
August 2023	N/A	\$84,280 (fee)

PROJECT NO. 10		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
East Bank Water Treatment Plant Project – Water and Utility Line Survey, Jefferson Parish, Louisiana Stantec Consulting Services, Inc. 1340 Poydras Street, Suite 1420 New Orleans LA 70112 Jeffrey Sapia, P.E., 225-926-3991 jeffrey.sapia@stantec.com	BFM's surveying services, as part of Task Order No. 3 of the project, involved BFM's location of exposed water or utility lines after said lines were excavated by another firm. Horizontal location and vertical elevation, at top of pipe, was recorded along with the pipe size and type. Field data was processed to add to the existing topographic survey, previously executed by BFM.	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
October 2018	N/A	\$19,703 (fee)

TEC Professional Services Questionnaire

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

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

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

BFM CORPORATION, LLC

Professional Land & Hydrographic Surveying

CRITERIA 1 | PROFESSIONAL TRAINING AND EXPERIENCE

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

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

Our capabilities include the following and more:

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

TEC Professional Services Questionnaire

N. continued.

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

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

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

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

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

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

CRITERIA 2 | SIZE OF FIRM

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

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

TEC Professional Services Questionnaire

N. continued.

CRITERIA 3 | CAPACITY FOR TIMELY COMPLETION

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

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

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

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

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

CRITERIA 4 | PAST PERFORMANCE ON PARISH CONTRACTS

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

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

CRITERIA 5 | LOCATION OF THE PRINCIPAL OFFICE

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

TEC Professional Services Questionnaire

N. continued.

CRITERIA 6 | LEGAL STATEMENT

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

CRITERIA 7 | PRIOR SUCCESSFUL COMPLETION OF PROJECTS

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

Mark R. Drewes, P.E., Director, Jefferson Parish Public Works Department

(504-736-6783 | JPPW@jeffparish.net)

Neil Schneider, CCM, P.E., Director, Capital Projects, Jefferson Parish Public Works Dept.

(504-736-6783 | JPPW@jeffparish.net)

José A. Gonzales, CAO, City of Kenner

(504-468-4090 | jgonzalez@kenner.la.us)

Angela DeSoto, P.E., Director of Engineering, Jefferson Parish

(504-736-6511 | ADeSoto@jeffparish.net)

Sid Trouard, P.E., Program Manager, Jefferson Parish Sewerage Capital Improvement Program

(504-736-6386 | STrouard@jeffparish.net)

Khalid L. Saleh, PhD, Capital Program Administrator, New Orleans Dept. of Public Works

(504-658-8000 | khsaleh@nola.gov)

Ben Lapine, Acting Director, Department of Drainage, Jefferson Parish

(504-736-6661 | JPSewerage@jeffparish.net)

Greg Cromer, Mayor, City of Slidell

(985-646-4333 | gcromer@cityofslidell.org)

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

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

Signature: 

Print Name: Chad M. Poché, P.E.

Title: Executive Vice President

Date: June 6, 2024

EUSTIS ENGINEERING, LLC
TEC Professional Services Questionnaire



TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ 24-013, Resolution No. 144203
Routine Engineering Services for Water Projects in 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.

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

Gwendolyn P. Sanders, P.E. / President and Project Principal

Project Assignment:

Project Principal / Limited Liability Corporation Member

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 / Civil Engineering

Bachelor of Science / 1990 / Civil Engineering

Active Registration: Year First Registered/Discipline:

Louisiana: 1997 / Civil Engineering

Mississippi: 2003 / Engineering

Texas: 2020 / Civil Engineering

Other Experience and Qualifications Relevant to the Proposed Project:

Mrs. 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.

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 area, 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 scopes of work for projects, planning and coordinating field investigations, assigning laboratory testing, performing geotechnical engineering analyses, preparing detailed reports with engineering analyses and recommendations, reviewing reports prepared by other professionals, and consulting with clients. Much of her work experience has dealt with 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. 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, translates 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:

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:

Gwendolyn P. Sanders, P.E. / President and Project Principal

- **Jefferson Parish – Department of Public Works**, Proposed Pump Station, West Esplanade at the 17th Street Canal, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24427
- **Jefferson Parish** – Veterans Boulevard, Pump Stations, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 23396.00, .01, & 24426
- **Jefferson Parish** – Design and Construction of Improvements to Causeway Boulevard and West Esplanade Avenue, North and South Sewer Pump Stations, Metairie, Louisiana, Eustis Engineering Project No. 22448

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:
21
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>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> <ul style="list-style-type: none">• Jefferson Parish – Department of Public Works, Proposed Pump Station, West Esplanade at the 17th Street Canal, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24427• Jefferson Parish – Veterans Boulevard, Pump Stations, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 23396.00, .01, & 24426• Jefferson Parish – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Benjamin M. Cody, P.E. / Principal Engineer
<ul style="list-style-type: none">• City of Kenner – Sewer Capital Improvement Program, Sewage Pumping Station Upgrade, 31st Street and Jasper Street Lift Station, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 21834 & 22559• Jefferson Parish – Proposed Lift Station, Melody Drive and West Esplanade Avenue, Metairie, Louisiana, Eustis Engineering Project No. 24782

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)
Project Assignment:
Senior Project Manager / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
20
Education: Degree(s)/Year/Specialization:
Master of Business Administration / 2011 / Business Administration Master of Science / 2003 / Civil Engineering (Geotechnical) Bachelor of Science / 1998 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2004 / Civil Engineering Mississippi: 2012 / Engineering Texas: 2010 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>For 3 years, Mr. Hance was a Staff Engineer and Assistant Project Manager on numerous design and construction phase projects in the Washington D.C. metropolitan area. His duties included management of field technicians who performed concrete, asphalt, and soils testing as well as foundation construction observations of spread footings, mats, drilled shafts, augercast piles, driven steel H-piles, tiebacks, and underpinning piers.</p> <p>After relocating to Austin, Texas, to eventually pursue graduate studies in engineering, Mr. Hance acted as an assistant project engineer for several design phase projects. These projects involved retention and stream bank stabilization applications. The types of systems designed included mechanically stabilized earth (MSE), single and multi-tiered walls and slopes utilizing geogrid reinforcement, and the use of geosynthetic materials in engineering applications such as erosion control solutions for open channel flow conditions.</p> <p>Mr. Hance was a graduate research assistant at the University of Texas at Austin where he published his Master's thesis in association with a Master of Science in Civil Engineering degree: <i>Assessment of Seafloor Slope Stability Based on a Database of Published Submarine Slope Failures</i>.</p> <p>Mr. Hance has spent the past 20 years with Eustis Engineering and has worked on many projects for Jefferson Parish. During his tenure at Eustis Engineering, he has earned four promotions: Project Engineer (July 2004), Project Manager (November 2007), Vice President (August 2011), and Chief Financial Officer (August 2012). Mr. Hance manages geotechnical services associated with commercial, industrial, environmental, and civil works projects. His responsibilities include managing a wide variety of design and construction phase projects (public and private sectors), management of staff engineers and development of their skill assets, developing scopes of work and appropriate fees for new projects with clients, participating in business development and marketing ventures, and negotiating contracts.</p> <p>Some of his experience relative to this submittal includes the following:</p> <ul style="list-style-type: none"> • Jefferson Parish – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819 • Jefferson Parish – Proposed Lift Station, Melody Drive and West Esplanade Avenue, Metairie, Louisiana, Eustis Engineering Project No. 24782

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)
Project Assignment:
Project 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:
<p>For his first 5 years after graduation, Mr. Sean G. Walsh was a Project Engineer on numerous projects in New York and the New Orleans metropolitan area where he gained experience in civil, geotechnical, and geo-environmental engineering projects for a variety of public and private clients.</p> <p>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, developing 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.</p> <p>Mr. Walsh was promoted to Project Manager in 2017, Engineering Manager in 2019, and Vice President in 2020. Mr. Walsh is also a graduate of the 2017 New Orleans Regional Leadership Institute (NORLI), a 1-year training program designed to help shape community leaders.</p> <p>During his employment with Eustis Engineering, Mr. Walsh has provided engineering services on more than 650 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.</p> <p>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 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 Spencer's Method of Slices and 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</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

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

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 in the industry 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** – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819
- **Lafourche Parish Government** – Butch Hill Pump Station, Lafourche Parish, Louisiana, Eustis Engineering Project No. 24723

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Lawrence W. Rome, C.E.T. / Operations Manager and Vice President (Operations)
Project Assignment:
Operations Manager / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
Education: Degree(s)/Year/Specialization:
Associate of Applied Sciences / 1998 / Safety
Active Registration: Year First Registered/Discipline:
N/A
Other Experience and Qualifications Relevant to the Proposed Project:
<p>Accreditations / Affiliations / Certifications</p> <p>American Society of Certified Engineering Technicians Confined Space Entry Certification Greater New Orleans Industrial Education Council Safety Training Medic First Aid and CPR Course 2015 HAZMAT Certification, 49 CFR 172, Subpart H, Nuclear Gauges</p> <p>International Code Council: Soils Special Inspector</p> <p>National Institute for Certification in Engineering Technologies:</p> <ul style="list-style-type: none"> Level I: Construction Materials Testing, Asphalt Level II: Construction Materials Testing, Concrete Level IV: Construction Materials Testing, Soils Level II: Geotechnical Engineering Technology, Construction Level III: Geotechnical Engineering Technology, Generalist Level IV: Geotechnical Engineering Technology, Exploration Level IV: Geotechnical Engineering Technology, Laboratory Level III: Transportation Engineering Technology, Highway Materials <p>10-Hour OSHA Training Transportation Workers Identification Card (TWIC) Registered Well Driller for the States of Louisiana and Mississippi</p> <p>Professional Experience</p> <p>After joining Eustis Engineering in 1994, Mr. Rome has worked in several departments throughout our firm. He began as a laboratory technician, performing simple testing such as grain size analyses, Atterberg liquid and plastic limits, and unconfined compression shear. Mr. Rome has become involved in more complex testing procedures such as permeability and consolidation tests. His capabilities have expanded to include lime stabilization studies, California Bearing Ratio tests, hysteresis, direct shear tests, swelling pressure and percent swell tests, consolidated undrained triaxial shear tests, relative density tests, and compaction tests.</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Lawrence W. Rome, C.E.T. / Operations Manager and Vice President (Operations)

Mr. Rome is thoroughly familiar with the performance of the following types of testing.

- | | |
|---|---|
| - Atterberg limits | - CBR of laboratory compacted soils |
| - Consolidated drained triaxial shear tests | - Consolidated undrained triaxial shear tests |
| - Consolidation tests | - Direct shear |
| - Direct simple shear | - Flexible wall permeability test |
| - Hydrometer | - Miniature vane shear |
| - Moisture content of soil and rock | - Organic content |
| - Particle size analysis of soils and aggregates | - Percent finer than No. 200 sieve |
| - Pocket penetrometer | - Relative density tests |
| - Settlement column testing of dredged materials | - Sieve analyses |
| - Soil constants | - Specific gravity of soils |
| - Standard and modified compaction | - Swell pressure tests |
| - Torvane shear tests | - Unconfined compressive strength of soil |
| - Unconsolidated undrained triaxial shear tests | - Unified Soil Classification System |
| - Unit weight | - Visual classification of soils |
| - Moisture density relationships of soil-cement mixtures | |
| - Molded sand triaxial test using Mississippi Department of Transportation specifications | |
| - U.S. Army Corps of Engineers' New Orleans District Classification System | |

In early 1998, Mr. Rome joined the Drilling Department as a soil technician, while assisting the drilling crew as a wrenchman. In November 1998, Mr. Rome became a driller for Eustis Engineering. In this capacity, he performed sampling operations using 3-in. diameter Shelby tubes and 5-in. diameter Corps of Engineers' fixed piston sampling. He is also quite familiar with splitspoon, pitcher, Osterberg, Denison, and hollow stem auger sampling operations. He is competent in the installation of piezometers, monitoring wells, inclinometers, and pore pressure transducers. Mr. Rome has drilled to depths in excess of 300 feet utilizing 5-in. fixed piston samplers and in excess of 400 feet for 3-in. diameter Shelby tube sampling. Mr. Rome has drilled from various types of equipment including pontoons, cargo buggies, shallow draft elevating boats, barges, and pull boats using CME, Diedrich, and Failing drill rigs. Mr. Rome has also served as a Quality Assurance/Quality Control inspector for drilling operations for FFEB JV. This included ensuring as many as 22 drill crews were performing sampling operations in strict compliance with USACE specifications.

In the early 2000s, Mr. Rome attended the University of Missouri at Rolla for Advanced Soil Mechanics training. In 2005, he began serving as Operations Manager overseeing the laboratory department's daily objectives, reviewing calculations, and developing new skills in laboratory personnel, as well as other duties. In the drilling department, he oversees up to five drilling crews which involves ordering parts, looking at prospective sites, making crew schedules, lining up subcontract equipment, and ensuring the highest quality samples are obtained by drill crews and subcontractors. Mr. Rome also serves as a driller or soil technician when his experience is required or to train new employees.

In 2013, Mr. Rome added the CMT Department under his operational duties in addition to his operational duties within the lab and drilling departments. Mr. Rome works closely with the operations supervisor for CMT, overseeing the department's daily objectives, reviewing reports, reviewing invoices, addressing staffing needs, as well as other duties.

Mr. Rome has direct involvement with the following projects related to this submittal:

- **Jefferson Parish** – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Lawrence W. Rome, C.E.T. / Operations Manager and Vice President (Operations)
<ul style="list-style-type: none">• Lafourche Parish Water District No. 1 – Sugar Ridge Wastewater Treatment Facility, Proposed Structures, Dogwood Drive, Lafourche Parish, Louisiana, Eustis Engineering Project No. 24757• Jefferson Parish – Maplewood Drive and Paillet Street, Drainage Improvements, Jefferson Parish, Louisiana, Eustis Engineering Project No. 22942

PROJECT NO. 01		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Department of Public Works Proposed Pump Station West Esplanade at the 17th Street Canal Jefferson Parish, Louisiana Eustis Engineering Project No. 24427</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>Jefferson Parish proposed a pump station at the intersection of the 17th Street Canal and West Esplanade Avenue in Metairie, Louisiana. The pump station would be built on the west bank of the canal.</p> <p>The pump station was planned to have approximate dimensions of 50' × 36' with a sump depth of approximately 18 feet. A new 78" × 122" arch-shaped reinforced concrete pipe would feed collected drainage water to the pump station. A new generator pad with approximate plan dimensions of 16' × 37' would be located southwest of the pump station.</p> <p>Discharge pipes, 32 inches in diameter, would be installed from the pump station, extending over the levee and floodwall to discharge stormwater from the pump station into the 17th Street Canal. The discharge pipes were to be pile-supported on the land and flood sides of the levee and floodwall.</p> <p>Eustis Engineering performed engineering analyses based on data obtained from previous subsurface explorations at the site supplemented by those in the project area.</p> <p>The scope of service for this project included compiling and updating geotechnical analyses from previous reports that were still applicable to the pump station plans. These previous analyses included deep-seated global stability analyses, seepage potential evaluation, and estimates of pile load capacities for various types and sizes of piles.</p> <p>We performed supplemental deep-seated global stability analyses to provide an alternative analysis as part of the Safety Assurance Review (SAR) required by the U.S. Army Corps of Engineers for the construction permit application. We also furnished supporting documentation for temporary retaining structure design as well as seepage and heave analyses. Finally, we generated recommendations for general site preparation and foundation construction procedures.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
09/2021 (A)	Unknown	\$25,500

PROJECT NO. 02	
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. 02		
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)

PROJECT NO. 03		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Maplewood Drive and Paillet Street Drainage Improvements Jefferson Parish, Louisiana Eustis Engineering Project No. 22942</p> <p>Contact Information: Jefferson Parish Through Burk-Kleinpeter, Inc. 4176 Canal Street New Orleans, Louisiana 70119 Henry M. Picard, III, P.E. @ 504-486-5901</p>	<p>After completing the geotechnical exploration and design for the project in 2011, Eustis Engineering was asked to provide construction materials testing services associated with the Maplewood Drive and Paillet Street drainage improvements project in Harvey, Louisiana. The project's general scope included the installation of subsurface drainage and street resurfacing along Maplewood Drive and the surrounding area. Our services included:</p> <ul style="list-style-type: none"> the performance of soil mechanics laboratory tests on various materials to be used for bedding, backfill, and roadway base materials to confirm they comply with project specifications; in-place density tests on these same materials to determine their compaction complied with the project specifications; inspection of the placement of concrete for slope paving, junction boxes, roadway paving, and various foundations; more than 80 sets of concrete cylinders were subjected to compressive strength testing at 7 days and 28 days; the inspection of more than 1,300 tons of asphalt both at the plant and in the field along with asphalt coring after placement; and vibration monitoring services during construction. <p>Our technicians recorded more than 8,200 hours for the project. Our engineers reviewed daily reports for compliance with our quality control manual and program.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
11/2017 (A)	Unknown	\$363,600

PROJECT NO. 04		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Jung and Falcone Lift Station Upgrades (K-11-3) New Sanitary Sewer Lift Station Marrero, Louisiana Eustis Engineering Project No. 23819</p> <p>Contact Information: 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 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 using one of our truck-mounted rigs. Once in our laboratory, samples selected by our engineering staff 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 documented in a report including:</p> <ul style="list-style-type: none"> • recommendations for site preparation encompassing temporary and permanent drainage, dewatering and pressure relief of excavations, and ways to limit lateral movement; • methods for excavation, base preparation, and bedding associated with the sanitary gravity sewer line, wet well, and valve box; • estimates of lateral earthen pressures; • recommendations for material placement and compaction of 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 piles; 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:
06/2018 (A)	Unknown	\$4,900

PROJECT NO. 05	
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 at Bayou Segnette Westwego, Louisiana 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> <p>Instrumentation data showed that movements with respect to time were very slight (less than 1.5 millimeters) over the six-month</p>

PROJECT NO. 05		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	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. 06		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Design and Construction of Improvements to Causeway Boulevard and West Esplanade Avenue North and South Sewer Pump Stations Metairie, Louisiana Eustis Engineering Project No. 22448</p> <p>Contact Information: Jefferson Parish Through ECM Consultants, Inc. 4409 Utica Street Suite 200 Metairie, Louisiana 70006 Chris Maniscalco @ 504-885-4080</p>	<p>Jefferson Parish planned to make improvements to the existing north and south sewer pump stations near the intersection of Causeway Boulevard and West Esplanade Avenue. Horizontal directional drilling technology would be used to install the proposed 8- and 12-in. diameter sewer pipes. The ground surface at the site was at approximate el -5. Soil bearing values were requested for the lift station planned at approximate el -22, a valve box at el -10, and manholes at approximate el -20. Recommendations for a sheetpile cofferdam were requested where the directional drilling would terminate at the Causeway Boulevard/West Esplanade intersection.</p> <p>One of Eustis Engineering's in-house drill crews traversed the short distance to the site to perform the field exploration developed by our engineering team. Three soil borings were made for the project to depths of 25, 50, and 75 feet below the existing ground surface considering the component feature depths and locations. Boring location coordinates were obtained using a handheld GPS unit. Samples of the subsoils retained from our drilling operations were transported to our accredited Metairie laboratory for testing. Once in our laboratory, classification, index, and strength tests were performed on the undisturbed samples to inform the soil design parameter selection.</p> <p>We developed geotechnical engineering recommendations for lateral earth pressures; bedding material and compaction requirements including the use of geotextiles as a material separator; and structural fill (material, placement and compaction recommendations) when used as backfill between the side walls of the buried structure and the temporary sheetpile cofferdam. Our design analyses resulted in estimates of allowable soil bearing values for the lift station and valve box mat foundations as well as estimates of settlement and differential settlement for these features. We also addressed the use of a temporary retaining structure; excavation, dewatering, and groundwater control operations; and ways to minimize lateral movement and settlement of the adjacent ground surface.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
02/2015 (A)	Unknown	\$7,200

PROJECT NO. 07		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Proposed Lift Station Melody Drive and West Esplanade Avenue Metairie, Louisiana Eustis Engineering Project No. 24782</p> <p>Contact Information: Jefferson Parish Through ECM Consultants, Inc. 1301 Clearview Parkway Suite 200 Metairie, Louisiana 70006 Sunina Shrestha P.E. @ 504-885-4080</p>	<p>A new lift station was proposed to be constructed at the intersection of Melody Drive and West Esplanade Avenue in Metairie, Louisiana, just east of the existing lift stations. The structure's wet well and valve pit would have a 2-ft (thick) base slab extending 2 feet beyond all sides. Two options regarding the wet well size and dimensions were being considered. A new pile-supported sewer force main aerial canal crossing was also proposed.</p> <p>Eustis Engineering's subsurface exploration comprised one undisturbed sample type soil test boring to a depth of 70 feet below the existing ground surface using a truck-mounted rotary-type drill rig. Due to the existing site features and overhead and underground utilities, our crew coordinated closely with the designer and representatives of Jefferson Parish to select the boring location. After completion of the field work, the samples were transported to our certified Metairie laboratory for testing. Soil mechanics laboratory tests consisted of visual classification, natural water content, unit weight, unconfined compression shear, unconsolidated undrained triaxial compression shear, and Atterberg liquid and plastic limits tests. These test results were utilized to develop soil design parameters for the geotechnical analyses.</p> <p>We made recommendations for both shallow (mat/slab) and deep (driven pile) foundation design, installation, and materials.</p> <p>Engineering analyses included settlement and lateral earthen pressures (at-rest, active, and passive). For mat foundations, we calculated allowable soil bearing values, net applied pressure intensity, estimated settlement, and uplift pressure. For pile foundations, we calculated allowable pile load capacities in compression and tension and estimated settlement. We also provided recommendations for pile materials, size, and installation methods.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
05/2022 (A)	Unknown	\$6,160

PROJECT NO. 08		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>City of Kenner Sewer Capital Improvement Program Sewage Pumping Station Upgrade 31st Street and Jasper Street Lift Station Kenner, Louisiana Eustis Engineering Project Nos. 21834 and 22559</p> <p>Contact Information: City of Kenner Department of Public Works Through Design Engineering, Inc. Suite 205 3330 West Esplanade Avenue Metairie, Louisiana 70002 John Holtgreve @ 504-836-2155</p>	<p>Construction was to consist of a new wet well 20 to 25 feet below the existing ground surface, a valve pit 6 to 8 feet below the existing ground surface, and an electrical panel at the ground surface. The wet well and valve pit would each have a 12' x 12' pad. The electrical panel would have a 2' x 5' pad. Both shallow foundation systems and treated timber piles were being considered for support of the project features.</p> <p>Eustis Engineering conducted one undisturbed soil test boring at the site. The boring was drilled to a depth of 80 feet below the existing ground surface to provide sufficient information for the evaluation of piles and sheetpiles. Our laboratory technicians performed tests on samples obtained from the boring at the direction of our engineers in order to evaluate the physical properties of the various substrata.</p> <p>Engineering analyses, based on the soil boring and laboratory test results, were made to determine recommendations regarding site preparation and drainage, pipe bedding, estimates of allowable soil bearing values, estimates of allowable load capacities for timber piles, estimates of settlement, a temporary restraining system, and foundation construction procedures as well as recommendations for rigid and flexible pavements. Eustis Engineering also provided construction materials testing services for this project. Those services included:</p> <ul style="list-style-type: none"> • soil mechanics laboratory tests including moisture content, Atterberg limits, mechanical analysis, and standard Proctor; • inplace density tests on sand, limestone, and crushed concrete for use as structural backfill, bedding, and base course; • visual and physical inspection of more than 1,620 feet of timber piles; • pile logging during installation; • performance of vibration monitoring during pile installation; • review of asphalt and concrete mix designs intended for use on the project; • visual and physical inspection of concrete placed for the lift station slab, seal slab, foundation slab, skid foundation, tank bottom, manhole, electrical pad, sidewalk, and roadway; • compressive strength tests on concrete cylinders made during the above inspection; and • the coring and inspection of asphalt. <p>Our engineers performed quality reviews of these inspection reports prior to issuing the results.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
04/2015 (A)	Unknown	\$19,300

PROJECT NO. 09		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Lafourche Parish Water District No. 1 Sugar Ridge Wastewater Treatment Facility Proposed Structures Dogwood Drive Lafourche Parish, Louisiana Eustis Engineering Project No. 24757</p> <p>Contact Information: Lafourche Parish Water District No. 1 Through 21 Design Group, Inc. Suite 301 1351 Jefferson Street Washington, Missouri 63090 Jeremy Lay @ 636-432-5029</p>	<p>A Moving Bed Biofilm Reactor (MBBR) and Clarifier are proposed for construction at the Sugar Ridge Wastewater Treatment Facility in Lafourche Parish, Louisiana. Shallow and deep foundations are currently under consideration. Eustis Engineering conducted a geotechnical exploration to assess the subsoil suitability to the intended project features.</p> <p>Based on review of the furnished information and knowledge of the area geology, Eustis Engineering recommended drilling two soil borings for this project. One boring was drilled to a depth of 70 feet and the other extended to a depth of 50 feet.</p> <p>Borings were drilled at the approximate center of each proposed structure's footprint using a truck mounted drill rig; undisturbed samples of cohesive or semi-cohesive subsoils were obtained at close intervals or changes in stratum using a 3-in. diameter thinwall Shelby tube sampler. Laboratory tests were performed to evaluate the subsoil characteristics, shear strength, and relative compressibility of the subsoils encountered.</p> <p>The geotechnical engineering design report of our findings and recommendations included:</p> <ul style="list-style-type: none"> • a boring location plan; • individual logs of the borings; • a summary of the laboratory test data; • a discussion of the subsoil and groundwater conditions; • recommendations for site preparation and drainage; • recommendations for placement and compaction of fill material; • estimates of allowable soil bearing values for mat foundations constructed at grade and at a depth of 9 feet below grade; • an evaluation of uplift pressures on the below grade features; • estimates of allowable vertical load capacities for various embedments of driven timber piles installed at grade or below grade; • recommendations for pile installation and testing methods; • estimates of settlement due to fill placement and structural loads; and • general construction recommendations. 	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
04/2022 (A)	Unknown	\$7,975

PROJECT NO. 10		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Lafourche Parish Government Butch Hill Pump Station Lafourche Parish, Louisiana Eustis Engineering Project No. 24723</p> <p>Contact Information: Lafourche Parish Government Through GIS Engineering, L.L.C. Suite 600 935 Gravier Street New Orleans, Louisiana 70112 Augustin Rega, P.E. @ 504-364-4784</p>	<p>The Lafourche Parish Government wishes to increase capacity at the existing Butch Hill Pump Station. This involves the removal of the existing station to introduce the new station. An existing vehicular bridge spanning the existing discharge pipes will be replaced during the construction of the new station. The intake canal may also be increased in width to provide greater flow into the new station. The new pump station may be located east of the existing pump station to allow for continued use of the old pump station during construction. This will require excavation and realignment of the intake drainage canal to support the updated design layout.</p> <p>Eustis Engineering L.L.C. performed a geotechnical exploration to support our engineering design recommendations associated with this project. We performed one soil boring to a depth of 150 feet and three cone penetration tests (CPTs) to depths of 150 feet.</p> <p>Soils mechanics laboratory tests performed on samples from the boring included natural water content, unconfined compression shear, unconsolidated undrained triaxial compression shear, and Atterberg liquid limits and plastic limits determinations. The test assignments were directed by our engineers to aid in the development of the soil design parameters.</p> <p>Eustis Engineering developed comprehensive draft and final geotechnical design reports for the project. Engineering analyses included estimates of lateral earthen pressure coefficients, local stability analyses of the pump station headwall and intake walls, and deep-seated stability analyses of the pump station and intake walls. For support of the pump station components, bridge, and other ancillary features, we provided estimates of allowable pile load capacity for various types and sizes of timber piles; square, precast concrete piles; and steel pipe piles for average grades at el 0 beyond the limits of the pump station and at el -21 beneath the structure. We evaluated seepage and heave beneath and around the pump station. Our geotechnical design report included estimates of allowable soil bearing values for the future equipment pad; estimates of settlement for foundation piles for both the pump station and the future discharge pipe foundations; estimates of subgrade moduli; and estimates of p-y, t-z, and Q-z soil values. We performed deep seated stability analyses of the drainage canal side slopes and slope stabilization needed to reroute the conveyance channels as part of the new pump station location.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
06/2022 (A)	Unknown	\$48,500

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.		
2.		
3.		
4.		

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

When Eustis Engineering L.L.C. 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;
- special inspections; 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, many of which focused on water facilities and infrastructure. 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 geotechnical engineering capabilities to fulfill the requirements of nearly any project. As evidenced by the included write-ups in this package, our experience with various water, sewer and drainage infrastructure projects is varied and extensive.

We have developed pile capacity and bearing capacity analyses for projects throughout Jefferson Parish and 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. Our evaluation of bearing capacity considers the excavation depth, base preparation and utility diameter.

We evaluate local and deep-seated global stability of canals, waterway slopes and embankments as well as excavation shoring and sheeting. We provide assessments of heave, seepage and erosion control measures. We evaluate floodwalls, including I-walls, L-walls, T-walls and gates.

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 moments. 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 20 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	B.A. / Business Administration	12	12
	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	M.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 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 ten years of experience in geotechnical engineering.

Cone Penetration Testing Capabilities

Eustis Engineering owns two dedicated track-mounted cone penetration test (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 if 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
- 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 CPT, 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 a dynamic cone penetration tests (DCPTs) to assess the in-situ strength of undisturbed soils and compacted materials in accordance with ASTM D 6951.

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); State of Louisiana, Department of Transportation and Development (LaDOTD); AASHTO; FAA; and the U.S. Army Corps of Engineers (USACE). Our laboratories hold accreditations from AASHTO, 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, 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 Mississippi Department of Transportation.

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	Aggregate	Aggregate
Concrete	Soil	Asphalt
Masonry	Concrete	Concrete
Soil	Spray Fire-Resistive Material	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 biggest reward of our quality system is knowing our clients are confident our testing laboratories produce the highest quality results and conform to state and national standards.

CONSTRUCTION MATERIALS TESTING

Eustis Engineering has been involved in construction materials testing (CMT) and inspection on a regular basis since the mid-1980s. Over the past 30+ years, Eustis Engineering has accumulated a wealth of experienced technicians in these areas. Whether 20 feet down in an excavation or 20 stories up in a high rise, our CMT technicians are there providing the inspection services needed on individual projects.

Staffing

Eustis Engineering currently has nearly 30 technicians on staff to provide construction inspection services on a daily basis. These services encompass the areas of soils, piling, asphalt, concrete, steel, and others.

Services

Soils testing in the field is performed by means of density tests, fill placement inspection, and depth checks. These services are performed by technicians who have attended courses by Troxler or Humboldt in the use of nuclear density devices.


Piling services include the inspection of various types of piles, logging these piles, and performance of pile load tests with calibrated equipment. Load test results are, in turn, interpreted and reported by a registered engineer on our staff.

Our realm of concrete inspection includes the formulation and review of mix designs, quality control at the plant and in the field, materials testing and sampling, precast piling inspection, post tension inspection, floor flatness, and mortar and grout inspection. These services are performed by our ACI and NICET certified technicians.

Steel inspection may include the visual inspection of structural steel at the site or in the shop, steel and pipe coating sampling, post tension and welder certification witnessing, and the performance of ultrasonic and x-ray testing. These services are performed by members of our staff currently certified with AWS, ASNT, and/or ASME.

Other CMT services provided by Eustis Engineering personnel include fireproofing inspection, vibration and acoustical monitoring, paint inspection, and more.

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

Signature: 
Title: President

Print Name: Gwendolyn P. Sanders, P.E.
Date: 12 June 2024



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