



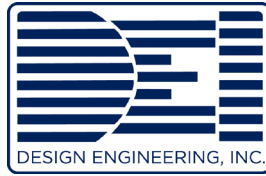
# ***Routine Engineering Services for Drainage Projects***

SOQ No. 24-015 | Resolution No. 144202

June 21, 2024







June 21, 2024

Jefferson Parish Council  
c/o Shanna Folse, Purchasing Specialist II  
Purchasing Department  
General Government Building  
200 Derbigny Street, Suite 4400  
Gretna, Louisiana 70053

Re: Qualification Statement  
Providing Routine Engineering Services  
For Drainage Projects in Jefferson Parish  
SOQ No. 24-015  
Resolution No. 144202

Dear Ms. Folse:

In response to your Public Notice requesting qualification statements from engineering firms interested in providing routine engineering services for Drainage Projects in Jefferson Parish for an annual period, Design Engineering, Inc. is pleased to submit the enclosed Jefferson Parish TEC Professional Services Questionnaire for your consideration.

The principals and technical staff members of Design Engineering, Inc. (DEI) have years of experience in the design of major drainage system projects for Jefferson and Orleans Parishes.

Design Engineering, Inc. is a local firm with its office in Jefferson Parish. Accordingly, all civil engineering work will be designed and supervised by a firm whose staff has years of experience designing projects for Jefferson Parish and is familiar with their procedures and criteria. We would appreciate the opportunity to demonstrate these capabilities on these projects.

As you will observe from the resumes, the staff members of the firm are experienced in local and state design procedures. Through many local engineering projects, this firm has established an excellent working relationship with the Jefferson

Design Engineering, Inc.  
3330 West Esplanade, Suite 205, Metairie, Louisiana 70002  
(504) 836-2155 • Fax (504) 836-2159 • E-mail: [deiengr@dei-engr.com](mailto:deiengr@dei-engr.com)

Parish Department of Public Works and all private utility companies in the area and will coordinate all work with these agencies.

With respect to our current workload, our firm has the staff and capabilities presently available to complete the projects in the most expeditious manner possible.

Design Engineering, Inc. is a Louisiana firm, domiciled in Jefferson Parish for over 40 years and is in close proximity to the project sites.

We look forward to being of service to Jefferson Parish and respectfully submit this qualification statement for your consideration.

With best regards, I remain

Sincerely,  
Design Engineering, Inc.

A handwritten signature in blue ink, appearing to read 'JM', is written over the printed name.

Jim Martin, Ph.D., P.E.  
President

## TEC Professional Services Questionnaire

### A. Project Name and Advertisement Resolution Number:

Routine Engineering Services for **Drainage Projects** in Jefferson Parish - Resolution No. 144202

### B. Firm Name & Address where Project work will be performed:



Design Engineering, Inc.  
3330 W. Esplanade Avenue, Suite 205  
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:

Jim Martin, Ph.D., P.E., President  
(504) 836-2155  
[jmartin@dei-engr.com](mailto:jmartin@dei-engr.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.

Jim Martin, Ph.D., P.E., President  
(504) 836-2155  
[jmartin@dei-engr.com](mailto:jmartin@dei-engr.com)

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

<u>4</u> Administrative	<u>      </u> Estimators	<u>      </u> Specification Writers
<u>      </u> Architects (Licensed)	<u>      </u> Geologists	<u>2</u> Structural Engineers
<u>      </u> Chemical Engineers	<u>      </u> Geotechnical Engineers	<u>      </u> Graduate Engineers
<u>4</u> Civil Engineers	<u>      </u> Interior Designers	<u>1</u> Project Managers
<u>10</u> Construction Inspectors	<u>      </u> Landscape Architects	<u>2</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>4</u> Engineer Interns	<u>      </u> Environmental Engineers	
<u>      </u> Professional Land Surveyors		<u>27</u> <b>TOTAL</b>

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

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

## TEC Professional Services Questionnaire

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

1. N/A

2. N/A

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

YES ☐ NO ☐ 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. Eustis Engineering, L.L.C. 3011 28 <sup>th</sup> St. Metairie, LA 70002	Geotechnical Services	Yes
2.		
3.		

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

\*1 personnel not listed in Section E (drafters) will also work on the project.

## TEC Professional Services Questionnaire

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

### **PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Jim Martin, Ph.D., P.E., President

**Project Assignment:**

Professional In Charge/Principal

**Name of Firm with which associated:**

Design Engineering, Inc.

**Years' experience with this Firm:**

10

**Education: Degree(s)/Year/Specialization:**

Old Dominion University – Coastal Engineering Certificate, 2010

Tulane University – Doctor of Philosophy, 2003

Tulane University – Master of Science in Environmental Engineering, 2000

University of Alabama – Bachelor of Science, Civil Engineering, 1998

**Active registration: Year first registered/discipline:**

2004, Civil Engineering, Louisiana License #31281

**Other experience and qualifications relevant to the proposed Project:**

**W. Esplanade Bridges at Duncan Canal:** Dr. Martin was responsible for overseeing and managing all personnel and contracts for the **hydraulic calculations and modeling** that have been reviewed and **accepted by the Parish, the City of Kenner, and the DOTD** the installation of a massive 2-cell box culvert that intersects with a separate large 2-cell box. Also responsible for all structural engineering on the project and these immense concrete structures (over **13 feet tall and 80 feet wide**).

**West Esplanade Avenue Canal Crossing:** The canal was hydraulically modeled for the installation of two 96-inch Concrete Arch Pipes. DEI designed the drainage and project surface work design for the improvements to West Esplanade Boulevard which included installing a 573-foot by a 96-inch culvert, over 600 feet of roadway, an additional sidewalk, and a new signalized interchange. Dr. Martin was part of the team that provided hydraulic engineering, conceptual, preliminary, and final plans for the improvements to West Esplanade Boulevard.

**MacArthur Drive Interchange Completion – Phase 1A (At-Grade Roadway):** Civil Engineer for a massive highway and bridge demolition and reconstruction project in Jefferson Parish. The design work included significant **drainage infrastructure improvements** such as the relocation of dozens of **drainage lines** including some up to 72" diameter; new storm drains, **new drainage pipes**, and manholes; and the **extension of the existing reinforced concrete box culvert**. These are of course only some of the features of a much larger project.

**Airline Drive Drainage Crossing St. Peter's Ditch:** Principal for the preparation of plans and technical specifications for contract bid and construction process. This project consisted of designing 365 feet of **major drainage improvements** adjacent to and across **Airline Drive**. Included in the work was the design of **large drainage junction boxes**, micro-tunneling or hand tunneling large diameter drain lines across Airline Drive, **reinforced concrete box culverts** and transition structures. **DEI provided hydraulic analysis of the drainage system across Airline Drive.**

## TEC Professional Services Questionnaire

**Seawall Area Erosion Control Paving Project:** Principal responsible for the design, construction administration, and inspection of the Seawall Area Erosion Control Paving Project and Seawall Stabilization. This multifaceted project included **installing subsurface drainage for the entire roadway, seawall, and surrounding area, and installing multiple seawall penetrations to accommodate outfall to the lake.** The concept has been so successful and economically advantageous that the client is expanding the design to all 5.2 miles of Lakeshore Drive in New Orleans.

**Frisco Avenue Drainage Improvements, Jefferson Parish:** Dr. Martin oversaw and managed all personnel and contracts involved in the modeling and design improvements along Frisco Avenue in Old Metairie. This project included upgrading **approximately 1200' of drain lines ranging from 15" diameter to 42" diameter pipes** at Frisco Avenue and relocating existing utilities such as waterlines and fiber optic lines along 1000' parallel to an operating railroad. The project also included the closure of an existing 300' long ditch. Responsibilities included project quantity estimating, preparation of plans for bidding, preparation of specifications for bidding, and construction administration. This project also included coordination with the Norfolk Southern Railroad for permitting, design, and throughout the proposed construction.

**Jefferson Parish Utility Relocation at Causeway South Shore:** To facilitate the construction of a major hurricane protection feature, Dr. Martin led a team of engineers (contracted by Jefferson Parish) in designing relocation for all Parish utilities between the South Shore and 6th Street. This included large **drainage lines above 48"**, deep gravity sewer lines, several HDD water lines, as well as coordination with the privately owned utilities in the area (Entergy, AT&T, Cox, TW Telecom, etc.) Dr. Martin was also part of the team that designed and coordinated the construction of the T-wall and associated bridges.

**Lake Charles H & H Urban Drainage Study, Lake Charles, LA:** Dr. Martin was responsible for multiple HEC-HMS and HEC-RAS models for several urban streams and watersheds (including pump stations). The HEC-RAS models were unsteady. All data was assembled via HEC GEO-RAS to assure a seamless integration with flood mapping tools on both the input and output sides of the models.

**Veterans Boulevard Box Culvert Installation East of Causeway:** In District 5, Jefferson Parish and the Greater New Orleans Expressway Commission sought to relieve congestion at Veterans and Causeway by installing an additional U-turn on Veterans Boulevard East of Causeway. This required the design and construction of a **new concrete box culvert** prior to filling and paving for traffic. The U-turn has been successfully in use since 2008 (in front of Acme Oyster House).

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
John Holtgreve, P.E. Executive Vice President
<b>Project Assignment:</b>
Chief Engineer
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
40
<b>Education: Degree(s)/Year/Specialization:</b>
MCE, 1975, Civil Engineering, Tulane University BS, 1970, Civil Engineering, Tulane University
<b>Active registration: Year first registered/discipline:</b>
1976, Civil Engineering, Louisiana License #16383
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b><u>Duncan Canal Box Culvert Installation:</u></b> Project Manager responsible for the <b>hydraulic calculations and modeling</b> that has been reviewed and <b>accepted by the Parish, the City of Kenner, and the DOTD</b> for the installation of a massive 2 cell box culvert that intersects with a separate massive 2 cell box. Also, is responsible for all structural engineering on the project as well for these extremely large concrete structures (in excess of <b>13 feet tall and 80 feet wide</b>).</p> <p><b><u>West Esplanade Avenue Crossing (Between Williams Blvd. and Power Blvd.):</u></b> Project Manager responsible for the feasibility/ conceptualization, hydraulic engineering, preliminary and final plans, construction administration and resident inspection services for the improvements to the W. Esplanade Ave. Crossing. This project consisted of the installation of <b>twin 96" diameter reinforced concrete arch pipes</b> with headwalls to accommodate crossing of W. Esplanade Ave. Median Canal and the installation of reinforced concrete u-shaped transition structures from 96" diameter reinforced concrete arch pipe headwall to earthen canal.</p> <p><b><u>Airline Drive Drainage Crossing St. Peter's Ditch:</u></b> Project Manager for the preparation of plans and technical specifications for contract bid and construction process. This project consisted of designing 365 feet of <b>major drainage improvements</b> adjacent to and across <b>Airline Drive</b>. Included in the work was the design of <b>large drainage junction boxes</b>, micro-tunneling or hand tunneling large diameter drain line across Airline Drive, <b>reinforced concrete box culverts</b> and transition structures. DEI provided hydraulic analysis of the <b>drainage system across Airline Drive</b>.</p> <p><b><u>Seawall Area Erosion Control Paving Project:</u></b> Project Manager responsible for the design, construction administration and inspection of the Seawall Area Erosion Control Paving Project and Seawall Stabilization. This multifaceted project included <b>installing subsurface drainage for the entire roadway, seawall and surrounding area, and installing multiple seawall penetrations to accommodate outfall to the lake</b>. The concept has been so successful and economically advantageous that the client is expanding the design to all 5.2 miles of Lakeshore Drive in New Orleans.</p> <p><b><u>Northbound Manhattan Boulevard Continuous Right Turn Lane:</u></b> Project Manager for the design and construction administration which included construction of an additional asphaltic concrete lane of traffic to Northbound Manhattan Blvd. (Gretna Blvd. to Westbank Expressway (US 90B)) and a right turn only lane on US90B frontage road eastbound to southbound Manhattan Blvd.; right-of-way requirements; utility and <b>drainage relocations</b>. The project was constructed using the designed plans by DEI and DEI personnel provided construction contract administration and construction engineering and resident inspection services. The project construction continued for 7 days a week for approximately 244 days. DEI also</p>



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provided services to assist the contractor in working **weekends and nights** as necessary to accommodate up to six (6) crews working **24-hour schedules**.

**Intersection Improvements of Wilker Neal at Airline Highway, Jefferson Parish:** Project Manager for this project which included the **design and construction of a 10.42 ft. x 18.67 ft concrete box culvert in Canal No. 6 along Airline Drive**. The project also included the removal of the existing bridge and constructing an asphaltic concrete roadway over the box culvert on Wilker-Neal Drive and modify the intersection of Wilker-Neal Drive and Airline Drive, as well as additional turning lanes and median modifications on Airline Drive.

**General DeGaulle Canal Road Crossing (Wall Boulevard and Sandra Drive):** Project Manager for the **design of (10'x14') concrete box culverts**, transition flume sections on each end of box and vertical and horizontal alignment. DEI provided all services required for the preparation of preliminary and final design plans. DEI's responsibilities included horizontal and vertical alignment, **design of new subsurface drainage** to tie existing **drainage infrastructure** with concrete box culverts and comment review and responses.

**Audubon Boulevard, New Orleans:** Project Manager for the design, construction administration and resident inspection for a 2,900 LF of new roadway. Included in the project for Audubon Boulevard, a divided roadway with raised median, is a new concrete roadway with concrete, or granite curb and gutter, **2,900 LF of subsurface drainage varying in size from 12" ø to 60" ø RCPA equivalent**, 2900 LF of 8" water main and 3000 LF of 8" sewer line, gas line and electric line relocation, new water meter and new sewer and water house connections.

**Robert E. Lee Boulevard, Paris Ave. to Pratt Drive:** Project Manager for the design and construction administration of the reconstruction of 4,500 LF of existing Robert E. Lee Blvd. including **major subsurface drainage improvements from 15" ø to 60" ø of reinforced concrete pipe** and utility relocations. Design Engineering, Inc. provided full construction management services for the LADOTD and the City of New Orleans. The entire construction contract administration and construction engineering and inspection for this project was managed through LADOTD Site Manager Program.

**Dwyer Drainage Pumping Station Discharge Tubes and Canal:** Project Manager for the planning and design of the **discharge pipes and drainage canal** between Dwyer **drainage pumping station** and the IHNC. The design of DEI's work included **3 – 84" ø drain lines**, relocation of utilities, Jourdan Road by-pass, blind bridges to maintain use of all railroad tracks during construction, construction of a 25 foot wide concrete box canal, floodwall relocation and reconstruction of Jourdan Road. Mr. Holtgreve was responsible for estimating cost and schedule, management of multiple stakeholders, project cost and schedule monitoring, documenting and reporting to the client, change order negotiation and preparation, claims management, processing of pay applications, project closeout, dispute resolution and final inspections. Also, Mr. Holtgreve, through Design Engineering, coordinated several meetings with PONO, New Orleans Public Belt Railroad, Sewerage and Water Board of New Orleans, Corps of Engineers and tenants to determine the best way to maintain services during construction of the project.

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<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Taylor Hebert, P.E. Civil Engineer
<b>Project Assignment:</b>
Civil Engineer
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
1
<b>Education: Degree(s)/Year/Specialization:</b>
BS, 2016, Civil Engineering, Minor in Spanish, University of Georgia
<b>Active registration: Year first registered/discipline:</b>
2020, Civil Engineering, Louisiana License No. 44720
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b><u>Grafton Drive Pavement Rehabilitation:</u></b> Mr. Hebert assisted in the construction administration of the reconstruction of the reconstruction of Grafton Drive from Cardinal Drive to E. Pinewood Drive, located in the City of Slidell. Responsibilities include construction management, document control, and meeting coordination. This project includes the removal of curbs, concrete pavement, grading, Class II base course, Portland cement concrete pavement, and related work. The scope of work also entails addressing issues related to traffic maintenance, joint sealing, and curb ramp improvements to enhance the overall safety and accessibility of Grafton Drive.</p> <p><b><u>Carey St. Pavement Rehabilitation:</u></b> Mr. Hebert assisted in the construction administration of the reconstruction of 3,500 linear feet of residential concrete panel roadway on Carey St. from Old Spanish Trail to Front Street, located in the City of Slidell. Responsibilities include construction management, document control, and meeting coordination. The project involves grading, Class II base course installation, Portland Cement Concrete Pavement (PCCP), and associated work. The project included extensive roadway and utility improvements, such as drainage structures, pavement replacement, and utility upgrades.</p> <p><b><u>PPG Hazard Mitigation Plan at the Scarsdale Drainage Pumping Station:</u></b> Mr. Hebert assisted with the Scarsdale <b>Drainage Pumping Station project</b>, which included demolishing, reconstructing, and upgrading the facility in four distinct phases. His responsibilities included generating submittals, managing RFIs, change orders, and pay applications using P6 software, drafting contracts, coordinating subcontractors, overseeing quality control, and supervising crews for this \$9.9 million infrastructure project.</p> <p><b><u>Relocation of East St. Bernard Highway and Associated Utilities for the LIT:</u></b> Mr. Hebert serves as a civil engineer on the \$1.8 billion Port of New Orleans LIT project. Located in Violet, St Bernard Parish, the project involves relocating East St. Bernard Highway, constructing a new bridge, and addressing utility relocation across 400 acres. Responsibilities include detailed reviews of project information, participating in design and constructability review meetings, and ensuring the project adheres to high standards and specifications.</p> <p><b><u>SWBNO Oak St. Pump Station Upgrade and Rehabilitation:</u></b> Mr. Hebert served as the project field engineer and QC Manager for the Oak Street Pump Station upgrade and rehabilitation project. Responsibilities included ensuring proper contract execution, generating submittals, handling RFIs, change orders, and pay applications, and updating project schedules using P6 software. He also assisted in drafting contracts for subcontractors and suppliers, overseeing their timely execution, and assisting in the design of critical</p>

## **TEC Professional Services Questionnaire**

project components like cofferdams, anchor bolt systems, and concrete formwork. Mr. Hebert effectively coordinated work processes among various subcontractors, enforced quality measures through preparatory meetings and inspections, directed work crews, and provided surveying and layout services, utilizing total station and AutoCAD software to create essential project drawings.

**WSLP 105 and 108 – Westshore Lake Pontchartrain USACE:** Mr. Hebert assisted with the Westshore Lake Pontchartrain (WSLP 105 and WSLP 108) flood protection project, which included the comprehensive design of drainage complex structures, t-walls, and earthen levee sections. His responsibilities encompassed various civil design tasks, technical report editing, and AEQR review of project plans, specifications, and cost estimates. Mr. Hebert assisted in designing a broad spectrum of projects, managed bidding phases, ensured compliance with project specifications, and facilitated public meetings to explain project designs, contributing significantly to the success of this crucial flood protection initiative.

**Permanent Canal Closures and Pumps (PCCP):** Mr. Hebert assisted with the PCCP storm surge barrier and pump station project as a Field Engineer and Closeout QC Manager. His responsibilities included verifying project features, coordinating training sessions for officials, and overseeing testing and training for the storm surge barriers. Mr. Hebert also managed daily work crew activities, ensured safety compliance, and utilized AutoCAD and Excel for project documentation, contributing significantly to the project's success.

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<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Brady Pechon, PE Civil Engineer
<b>Project Assignment:</b>
Civil Engineer
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
4
<b>Education: Degree(s)/Year/Specialization:</b>
BS, 2016, Civil Engineering, Louisiana State University
<b>Active registration: Year first registered/discipline:</b>
2024, Civil Engineering, Louisiana License No. 48579
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b><u>Audubon Blvd Reconstruction, Orleans Parish:</u></b> Mr. Pechon is assisted the project engineer in the design of the reconstruction of Audubon Blvd in New Orleans. Responsibilities include cost estimating, design, and drafting. This project includes full reconstruction and will include full block roadway pavement replacement including resetting distinctive aggregate curbs, ADA accessible ramps, <b>drainage system replacement</b>, sidewalk, driveway, sewer line, and water main utility replacement. This project also includes coordination with Batture Engineering to assist in design.</p> <p><b><u>State Street Drive Reconstruction, Orleans Parish:</u></b> Mr. Pechon is assisting the project engineer in the design of the reconstruction of State Street Drive in New Orleans. Responsibilities include cost estimating, design, and drafting. This project includes full reconstruction and will include full block roadway pavement replacement including resetting distinctive aggregate curbs, ADA accessible ramps, drainage system replacement, sidewalk, driveway, sewer line, and water main utility replacement. This project also includes coordination with Batture Engineering to assist in design.</p> <p><b><u>Milneburg Group B Reconstruction, Orleans Parish:</u></b> Mr. Pechon assisted the project engineer in the construction administration of the reconstruction of the Milneburg Neighborhood in New Orleans. Responsibilities include construction management, document control, and meeting coordination. The roadway and utility improvements are located on various streets in the Milneburg Neighborhood Development. This project also includes full reconstruction and will include full block roadway pavement replacement including resetting distinctive aggregate curbs, ADA accessible ramps, <b>drainage system replacement</b>, sidewalk, driveway, sewer line, and water main utility replacement. This project is also in coordination with Hard Rock Construction throughout the construction of the project.</p> <p><b><u>Lake Pontchartrain Causeway Southbound Bridge Rail Improvements:</u></b> Mr. Pechon performed inspection oversight, quality assurance, and construction administration for the installation of safety rails along the Southbound bridge. Responsibilities included evaluation of construction operations/work for conformance with the Plans and Specifications; coordination of daily field notes and acceptance of work with up to ten inspectors; and assistance in the response to RFIs, submittals, and monthly project progress summaries.</p> <p><b><u>Widening of Causeway Blvd. (Airline Drive to West Napoleon Ave.):</u></b> Mr. Pechon assisted the project engineer with design, performed drafting, and assembled plans and specifications. This project includes expanding a mile-long road from four lanes to six, replacing the drainage system, striping, and traffic signalization.</p>



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**Grafton Drive Pavement Rehabilitation:** Mr. Pechon assisted in the construction administration for the reconstruction of Grafton Drive from Cardinal Drive to E. Pinewood Drive, located in the City of Slidell. This project includes the removal of curbs, concrete pavement, grading, Class II base course, Portland cement concrete pavement, and related work. The scope of work also entails addressing issues related to traffic maintenance, joint sealing, and curb ramp improvements to enhance the overall safety and accessibility of Grafton Drive.

**Frisco Ave. Drainage Improvements:** Mr. Pechon assisted with the modeling and design improvements along Frisco Avenue in Old Metairie. This project includes upgrading approximately **1200' of drain lines ranging from 15" diameter to 42"** diameter pipes at Frisco Avenue, and relocating existing utilities such as waterlines and fiber optic lines along 1000' parallel to an operating railroad. The project also includes the closure of an existing 300' long ditch. Responsibilities include project quantity estimating, preparation of plans for bidding, preparation of specifications for bidding, and construction administration. This project also includes coordination with the Norfolk Southern Railroad for permitting, design, and throughout the proposed construction.

**Carey St. Pavement Rehabilitation:** Mr. Pechon is currently assisting the project engineer in the construction administration of the reconstruction of approximately 3,500 linear feet of primarily residential concrete panel roadway on Carey St. from Old Spanish Trail to Front Street, located in the City of Slidell. Responsibilities include construction management, document control, and meeting coordination. The project involves grading, Class II base course installation, Portland Cement Concrete Pavement (PCCP), and associated work.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Collin Gillen, PE Civil Engineer
<b>Project Assignment:</b>
Civil Engineer
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
4
<b>Education: Degree(s)/Year/Specialization:</b>
BS, 2020 Civil Engineering, Louisiana State University
<b>Active registration: Year first registered/discipline:</b>
2020, Civil Engineering, Louisiana License #49017
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b><u>Lake Pontchartrain Causeway Southbound Bridge Rail Improvements:</u></b> Mr. Gillen performed inspection oversight, quality assurance, and construction administration for the improvement of the existing bridge railing system to MASH Test Level 4, the repair of damaged concrete railing, replacement of impact attenuators, relocation of signs and supports, modification of call boxes, installation of pavement markings, and installation of access platforms. CE&amp;I includes organization of progress meetings, review of submittals (e.g. Construction Schedules, RFIs, Plan Changes, and Materials), and processing partial pay estimates. Resident inspection includes observation of construction activities (e.g. 48 miles of bridge rail fabrication and installation, 138,000 epoxied anchor rods, and repair of damaged concrete rail), production of daily reports, review of TTC installation/removal, and review of on-site safety. Responsibilities included evaluation of construction operations/work for conformance with the Plans and Specifications; coordination of daily field notes and acceptance of work with up to ten inspectors; and assistance in the response to RFIs, submittals, and monthly project progress summaries.</p> <p><b><u>Causeway Blvd. Overpass at Airline Drive:</u></b> Mr. Gillen assisted the project engineer with the oversight of the rehabilitation of bridge spans of this 1950s-era structure to meet AASHTO and LaDOTD standards. Responsibilities included conducting structural analysis of existing girders according to modern standards to determine adequacy in terms of safety and serviceability, designing cover plates for failing girders and their connections to strengthen spans at a lower cost than replacement, coordinating the removal and replacement of a corroded portion of the girder to reduce costs compared to replacing the entire girder and designing flange and web splice plates and their connections to safely transfer loads between the existing and new portions of the girder.</p> <p><b><u>Conceptual Planning Study Causeway Blvd. at US 90/ Jefferson Highway:</u></b> Design Engineering, Inc. was contracted by the Regional Planning Commission (RPC) to develop and analyze a range of feasible improvements, taking into account potential traffic loadings, the location of the new parking facility, existing constraints, i.e., nearby structures and limited rights-of-way, and the aesthetic goals of the corridor improvement program. DEI prepared a draft project schedule including major milestones, i.e., Project Management Committee (PMC) meetings, site visits, draft reviews, and final report submissions.</p> <p><b><u>Power Blvd. Median Improvements (West Esplanade Ave. - Vintage Dr.):</u></b> Mr. Gillen performed inspection oversight, quality assurance, and construction administration for the creation of a bike/pedestrian path along the median are of Power Blvd. between West Esplanade Ave. and Vintage Drive. The project included concrete paving, excavation, <b>drainage</b>, bridge construction, lighting, landscaping, striping, and the installation of amenities such as drinking water fountains.</p>

## TEC Professional Services Questionnaire

**Grafton Drive Pavement Rehabilitation:** Mr. Gillen is currently assisting the project engineer in the construction administration of the reconstruction of Grafton Drive from Cardinal Drive to E. Pinewood Drive, located in the City of Slidell. Responsibilities include construction management, document control, and meeting coordination. This project includes the removal of curbs, concrete pavement, grading, Class II base course, Portland cement concrete pavement, and related work. The scope of work also entails addressing issues related to traffic maintenance, joint sealing, and curb ramp improvements to enhance the overall safety and accessibility of Grafton Drive.

**Westwood Drive (Westbank Expressway - Lapalco):** Mr. Gillen performed inspection oversight, quality assurance, and construction administration for the construction of 0.648 miles of roadway, which included 20,516 SY of Portland Cement Concrete Pavement with barrier curb, mountable curb and gutter. This project included Class II base course, **drainage pipes and structures**, sanitary sewer and related work, and tie-in to the existing Westbank Expressway on the north end and Lapalco Blvd. on the south end. Pavement striping, signs, and legends and symbols were also included.

**State Street Dr. (Claiborne Ave. to Fontainebleau Dr.):** Mr. Gillen assisted the project engineer in the design of the reconstruction of State Street Drive in New Orleans. Responsibilities include reviewing plans for water and sewer line connections. This project includes full reconstruction and will include full block roadway pavement replacement including resetting distinctive aggregate curbs, ADA accessible ramps, **drainage system replacement**, sidewalk, driveway, sewer line, and water main utility replacement. This project also includes coordination with Batture Engineering to assist in design.

**Magazine St. (Leake Ave to East Dr):** Mr. Gillen is assisted the project engineer in the construction administration of the reconstruction of Magazine Street, between the intersections of Leake Avenue and East Drive, located in the Audubon Neighborhood area of New Orleans. Responsibilities include construction management, document control, and meeting coordination. This project also includes full reconstruction and full block roadway pavement replacement including resetting distinctive aggregate curbs, ADA accessible ramps, **drainage system replacement**, sidewalk, driveway, sewer line, and water main utility replacement. This project is also in coordination with Hard Rock Construction throughout the construction of the project.

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
Max Shukla, P.E. Senior Engineer
<b>Project Assignment:</b>
Structural Engineer
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
36
<b>Education: Degree(s)/Year/Specialization:</b>
BS, 1960, Civil Engineering, M.S. University, Baroda, India MS, 1969, Civil Engineering, M.S. University, Baroda, India
<b>Active registration: Year first registered/discipline:</b>
1978, Civil Engineering, Louisiana License No. 17008
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b><u>Duncan Canal Improvements:</u></b> This project includes conceptual, preliminary and final plans to replace the Bridge at Duncan Canal over West Esplanade. In addition, the project required permitting and hydraulic engineering. This project is one of the largest canals in Jefferson Parish and the existing bridges are in poor condition and an eye sore. In this project, <b>DEI designed two massive concrete box culverts (38 x 13 each) as well as two smaller box culverts to receive Canal #2.</b> Following the bridge replacement, newly design asphalt roadway will be placed on the approaches as well as over the boxes.</p> <p><b><u>Airline Drive Drainage Crossing St. Peter's Ditch:</u></b> Structural Engineer responsible for the preparation of plans and technical specifications for contract bid and construction process. This project consisted of designing <b>365 feet of major drainage improvements</b> adjacent to and across Airline Drive. Included in the work was the <b>design of large drainage junction boxes</b>, micro-tunneling or hand tunneling large diameter drain lines across Airline Drive, reinforced concrete box culverts, and transition structures. DEI provided hydraulic analysis of the drainage system across Airline Drive.</p> <p><b><u>Intersection Improvements of Wilker Neal at Airline Highway, Jefferson Parish:</u></b> Structural Engineer for the design and <b>construction of a 10.42 ft. x 18.67 ft concrete box culvert in Canal No. 6</b> along Airline Drive. The project also included the removal of the existing bridge and constructing an asphaltic concrete roadway over the box culvert on Wilker-Neal Drive and modify the intersection of Wilker-Neal Drive and Airline Drive, as well as additional turning lanes and median modifications on Airline Drive.</p> <p><b><u>Dwyer Drainage Pumping Station Discharge Tubes and Canal:</u></b> Structural engineer for the planning and design of the <b>discharge pipes and drainage canal between Dwyer drainage pumping station and the IHNC.</b> The design of DEI's work included <b>3 – 84" ø drain lines</b>, relocation of utilities, Jourdan Road by-pass, blind bridges to maintain use of all railroad tracks during construction, construction of a 25 foot wide concrete box canal, floodwall relocation and reconstruction of Jourdan Road.</p>



## TEC Professional Services Questionnaire

**General DeGaulle Canal Road Crossing (Wall Boulevard and Sandra Drive):** Structural Engineer responsible for the **design of a (10'x14') concrete box culverts**, transition flume sections on each end of box and vertical and horizontal alignment. DEI provided all services required for the preparation of preliminary and final design plans. DEI's responsibilities included horizontal and vertical alignment, design of **new subsurface drainage to tie existing drainage infrastructure with concrete box culverts** and comment review and responses.

**Seawall Area Erosion Control Paving Project:** Structural Engineer responsible for the design, construction administration, and inspection of the Seawall Area Erosion Control Paving Project and Seawall Stabilization. This multifaceted project included **installing subsurface drainage for the entire roadway, seawall, and surrounding area, and installing multiple seawall penetrations to accommodate outfall to the lake**. The concept has been so successful and economically advantageous that the client is expanding the design to all 5.2 miles of Lakeshore Drive in New Orleans.

**USACE – WBV – Planters Pumping Station:** Structural engineer for the extension of **nine (9) steel drainage discharge pipes**, installation of discharge pipe valves and associated electrical work, construction of a 610-foot-long concrete flood protection T-Wall, and concrete scour protection for a total cost of 35 million dollars. In addition to providing all design services, DEI also performed the Engineering During Construction (EDC) contract, during which shop drawings, design submittals, and Requests for Information (RFI's) by the Contractor were processed during the construction of the pumping station in coordination with other design firms. Resident inspection was also conducted during construction and inspection reports were submitted to USACE. This project has been **awarded the American Concrete Institute (ACI) - Best Concrete Project award for 2012**.

**Hollygrove Area Drainage Improvement:** Structural engineer for the installation of **1900 LF of 20'x10' concrete box culvert canal and 550 LF of 16'x10' of concrete box canal** along the abandoned railroad embankment between Monticello Street and Eagle Street. Also, **1500 LF of 5 x 4 concrete box culvert constructed along Eagle Street** from Forshey Street to Stoelitz Street. DEI provided inspection services for the Sewerage and Water Board of New Orleans on the following projects: Hollygrove Area Drainage Improvements Railroad Embankment and Eagle Street Covered Canal Work; Hollygrove Area Drainage Improvements Forshey and Dublin Streets Covered Canal Work; and Pritchard Place Pumping Station.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Jay Rafferty Construction Manager
<b>Project Assignment:</b>
Construction Manager
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
4
<b>Education: Degree(s)/Year/Specialization:</b>
BS, 1997, Industrial Technology, Southeastern University
<b>Active registration: Year first registered/discipline:</b>
N/A
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b><u>Lake Pontchartrain Causeway Southbound Bridge Rail Improvements:</u></b> This project entailed replacing the safety railing on both sides of the southbound Causeway Bridge to eliminate accidents involving cars falling into Lake Pontchartrain. As lead inspector, Mr. Rafferty coordinated all other DEI inspectors assigned to this project, inspected work being done on the project, wrote daily reports, and submitted remediation lists to construction subcontractors.</p> <p><b><u>Ames Blvd. (Westbank Expressway - Happy St.):</u></b> Mr. Rafferty provided resident inspection for 0.39 miles of roadway which included asphalt paving inspection, estimate generation, material sampling, submittal review, and project close-out of Ames Boulevard from the Westbank Expressway to Happy Street. Mr. Rafferty's responsibilities for this project were to ensure that the resident inspector prepared daily reports, inspected the progress of the work to ensure that the Contractor complied with the requirements of the plans and specifications, and attended all the progress meetings.</p> <p><b><u>Westwood Drive (Westbank Expressway - Lapalco):</u></b> Mr. Rafferty was responsible for preparing daily reports, inspecting the progress of the work to ensure that the contractor complied with the requirements of the plans and specifications, and attending all project meetings for the construction of 0.648 miles of roadway. This construction includes 20,516 square yards of Portland Cement Concrete Pavement with barrier curb, mountable curb, and gutter, including Class II base course, <b>drainage pipes and structures</b>, sanitary sewer and related work, and tie-in to the existing Westbank Expressway on the north end and Lapalco Blvd. on the south end. Pavement striping, signs, legends, and symbols are also included. DEI is responsible for the construction, engineering, and inspection of this project, which includes maintaining all construction field records, making daily entries in the project diary to indicate the contractor's personnel and equipment being utilized on the project, the work being accepted, the acceptability of traffic control, and the charging of contract time through Site Manager.</p> <p><b><u>Power Blvd. Median Improvements (West Esplanade Ave. - Vintage Dr.):</u></b> Mr. Rafferty provided resident inspection for the creation of a bike/pedestrian path along the median area of Power Blvd. between West Esplanade Ave. and Vintage Drive. The project includes concrete paving, excavation, drainage, bridge construction, lighting, landscaping, striping, and the installation of amenities such as drinking water fountains. Mr. Rafferty's responsibilities for this project were to ensure that the resident inspector prepared daily reports, inspected the progress of the work to ensure that the Contractor complied with the requirements of the plans and specifications, and attended all the progress meetings.</p>

## **TEC Professional Services Questionnaire**

**Causeway Blvd. Overpass at Airline Drive:** Mr. Rafferty provided resident inspection for the rehabilitation of Ramps 6, 7, and the overpass of Causeway Blvd Overpass at Airline Drive. The resident inspection included observation of construction activities for structure jacking, span movement, reinforced concrete riser construction, girder strengthening, bridge deck joint sealing, epoxy-urethane overlay, and bridge drainage rehabilitation. Mr. Rafferty's responsibilities for this project were to ensure that the resident inspectors were preparing daily reports, inspecting the progress of the work to ensure that the Contractor complies with the requirements of the plans and specifications, and attending all the progress meetings. He was also overseeing the resident inspector's writing of his daily diary items of work performed for the day and the comparison of quantities installed with the Contractor.

**Lake Pontchartrain and Vicinity 106 Citrus Lake Floodwall:** Mr. Rafferty was the Construction Project Manager/Project Coordinator for this project. Mr. Rafferty's responsibilities consisted of managing, scheduling, and coordinating field activities for fifty (50) plus employees. He was also the QC Manager Representative for the US Army Corp of Engineers for this project. His responsibilities included interviewing, training, drug screening, background checking, hiring, and termination of field personnel.

**St. Andrews St. Wharf Erosion Mitigation Project:** Mr. Rafferty was responsible for preparing daily reports, inspecting the progress of the work to ensure that the contractor complied with the requirements of the plans and specifications, and attending all project meetings. This project encompassed the construction of an approximately 1600-foot-long and 50-foot-deep steel sheet pile wall with a reinforced concrete pile cap along the roadway side of the St. Andrew Street Wharf and associated roadway construction.

**Airline Park Blvd. (Camphor-W Napoleon):** Mr. Rafferty provided resident inspection for the construction of 0.390 miles of roadway which includes grading, drainage structures, milling asphalt pavement, pavement patching, class ii base course, scarifying and compacting roadbed, asphalt concrete pavement, Portland Cement Concrete Pavement, cofferdams, storm water pumping station, and related work on Airline Park Boulevard from north of its intersection with Camphor St. to its junction with W. Napoleon Ave. Mr. Rafferty's responsibilities for this project were to ensure that the resident inspector is preparing daily reports, inspecting the progress of the work to ensure that the Contractor complies with the requirements of the plans and specifications, and attending all the progress meetings. He also oversaw that the resident inspector is writing in his daily diary items of work performed for the day and the comparison of quantities installed with the Contractor. The entire construction contract administration and construction engineering and inspection for this project are managed through LaDOTD SiteManager.

**Canal Blvd. (R.E. Lee-Amethyst):** Mr. Rafferty provided resident inspection for the reconstruction of an existing four-lane divided boulevard. The project scope included grading, drainage structures, asphalt pavement milling, pavement patching, Class II base course, scarification and compaction of the roadbed, asphalt concrete pavement, Portland Cement Concrete Pavement, cofferdams, stormwater pumping station, pavement striping, signs, legends, and symbols. Mr. Rafferty's responsibilities for this project were to ensure that the resident inspector is preparing daily reports, inspecting the progress of the work to ensure that the Contractor complies with the requirements of the plans and specifications, and attending all the progress meetings. He also oversaw that the resident inspector is writing in his daily diary items of work performed for the day and the comparison of quantities installed with the Contractor. The entire construction contract administration and construction engineering and inspection for this project are managed through LaDOTD SiteManager.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Jeff Puissegur Inspector
<b>Project Assignment:</b>
Resident Inspector
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
12
<b>Education: Degree(s)/Year/Specialization:</b>
Tulane University: Bachelor of Arts, Major in Business Management, Minor in Arts & Business Certifications: LaDOTD Embankment and Base Course Inspector, ATSSA Work Zone Traffic Control Technician, Supervisor, and Flagger
<b>Active registration: Year first registered/discipline:</b>
N/A
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b><u>Grafton Drive Pavement Rehabilitation:</u></b> Mr. Puissegur was the Resident Inspector for this roadway reconstruction project consisting of the removal of curbs, concrete pavement, grading, Class II base course, Portland cement concrete pavement, and related work. The scope of work also entails addressing issues related to traffic maintenance, joint sealing, and curb ramp improvements to enhance the overall safety and accessibility of Grafton Drive. Mr. Puissegur prepared daily reports, inspected the progress of the work to ensure that the Contractor complied with the requirements of the plans and specifications, and attended all the progress meetings. Further, Mr. Puissegur wrote in his daily diary items of work performed for the day and the comparison of quantities installed with the Contractor. The entire construction contract administration and construction engineering and inspection for this project is managed through LaDOTD SiteManager.</p> <p><b><u>Magazine St. (Leake Ave to East Dr):</u></b> Mr. Puissegur was the Resident Inspector for this roadway rehabilitation project consisting of the removal of existing pavement, excavation/embankment, base course, PCC paving, drainage structures, concrete curb, sidewalks &amp; handicap ramps, water &amp; sewer lines, pavement markings, and related work. Mr. Puissegur prepared daily reports, inspected the progress of the work to ensure that the Contractor complied with the requirements of the plans and specifications, and attended all the progress meetings. Further, Mr. Puissegur wrote in his daily diary items of work performed for the day and the comparison of quantities installed with the Contractor. The entire construction contract administration and construction engineering and inspection for this project is managed through LaDOTD SiteManager.</p> <p><b><u>Airline Drive Drainage Crossing (St. Peter's Ditch):</u></b> Mr. Puissegur was responsible for the quality assurance in the construction of <b>365 feet of drainage improvements</b> adjacent to and across Airline Drive, including the construction of large drainage junction boxes, micro-tunneling or hand tunneling large diameter drain line across Airline Drive, reinforced concrete box culverts and transition structures. Mr. Puissegur prepared daily reports through LaDOTD SiteManager, inspected the progress of the work to ensure that the contractor complied with the requirements of the plans and specifications, and attended all project meetings.</p>



## **TEC Professional Services Questionnaire**

**Airline Park Blvd. (Camphor-W Napoleon):** Mr. Puissegur prepared daily reports which were recorded through LADOTD Site Manager, inspected the progress of the work to ensure that the Contractor complies with the requirements of the plans and specifications and attends all the progress meetings. Further, Mr. Puissegur wrote in his daily diary items of work performed for the day and the comparison of quantities installed with the Contractor. This project included the construction of 0.390 miles of roadway which includes grading, drainage structures, milling asphalt pavement, pavement patching, class ii base course, scarifying and compacting roadbed, asphalt concrete pavement, Portland Cement Concrete Pavement, cofferdams, storm water pumping station, and related work on Airline Park Boulevard from north of its intersection with Camphor St. to its junction with W. Napoleon Ave.

**Lake Forest Blvd. Eastover Blvd. to I-510:** Mr. Puissegur prepared daily reports which were recorded through LADOTD Site Manager, inspected the progress of the work to ensure that the Contractor complies with the requirements of the plans and specifications, and attended all the progress meetings. Further, Mr. Puissegur wrote in his daily diary items of work performed for the day and the comparison of quantities installed with the Contractor. This project included the construction of approximately 638 LF of Portland Cement Concrete Pavement with barrier curb, barrier rails, and retaining wall, including drainage pipes and structures and tie-in to the existing Westbound concrete pavement at Lake Forest Boulevard. Also, approximately 624 LF of the existing Eastbound asphaltic concrete pavement on Lake Forest Boulevard was removed by milling and overlaid with 2" asphaltic concrete wearing course, to develop a 2.5% cross slope. Pavement striping, sign and legends and symbols were included.

**Jefferson Parish Submerged Roadway Program:** Mr. Puissegur prepared daily reports through LaDOTD SiteManager, inspected the progress of the work to ensure that the contractor complied with the requirements of the plans and specifications, and attended all project meetings. This project included damage evaluation due to Hurricane Katrina and roadway reconstruction of eighty-five (85) concrete streets and eight (8) miles of asphalt roadway repair within Council District 3. Design Engineering's responsibilities included Site Evaluations, Preliminary Plans, Final Plans, Construction Administration, and Resident Inspection. During site evaluations, DEI noted settlement and surface condition and verified the degree and severity of damage described in FEMA Project Work Sheets. Considerations during the design phase were tree root impacts on the existing roadway, addition and/or repair of sidewalks, driveways and handicap ramps, and adjustment of all drainage structures within the roadway limits.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Wayne Lemoine Inspector
<b>Project Assignment:</b>
Resident Inspector
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
4
<b>Education: Degree(s)/Year/Specialization:</b>
Certifications: LaDOTD Structural Concrete Inspector, Basic Bridge Safety Inspector's Training, Bridge Inspection Update, Nondestructive Evaluation of Bridge Conditions, Bridge Inspector, Movable Bridge Inspection Training Course, ATSSA Flagger, ATSSA Traffic Control Supervisor, Prager Gear Seminar, Pump and Seal School, Stream Stability and Scour at Highway Bridges for Bridge Inspectors, Hazwoper, Industrial Hydraulics, Deleading of Industrial Structures, Inspection of Fracture Critical Bridge Members
<b>Active registration: Year first registered/discipline:</b>
N/A
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b><u>Southbound Causeway Safety Rail Improvements (CE&amp;I):</u></b> Mr. Lemoine performed inspections for the improvement of the existing bridge railing system to MASH Test Level 4, the repair of damaged concrete railing, replacement of impact attenuators, relocation of signs and supports, modification of call boxes, installation of pavement markings, and installation of access platforms. Construction administration included the organization of progress meetings, review of submittals (e.g., Construction Schedules, RFIs, Plan Changes, and Materials), and processing of partial pay estimates. Resident inspection included the observation of construction activities (e.g., 48 miles of bridge rail fabrication and installation, 138,000 epoxied anchor rods, and repair of damaged concrete rail), production of daily reports, review of TTC installation/removal, and review of on-site safety.</p> <p><b><u>La 70 Mississippi River Bridge, Phase II CE&amp;I, Painting Inspection, and Environmental Monitoring, St. James Parish, LA:</u></b> Mr. Lemoine performed structural steel inspection, traffic control inspection, structural concrete repair inspection, and contract administration for the LA 70 Bridge over the Mississippi River. He coordinated the painting and environmental operations with SiteManager Reports and Daily Work Reports. This project included strengthening steel members, repairing end dams and roadway joints, and painting the steel approaches.</p> <p><b><u>Sunshine Bridge, Donaldsonville, LA:</u></b> Mr. Lemoine performed inspections on repairs to the expansion joints on the Sunshine Bridge. Mr. Lemoine also inspected the placement of epoxy in the roadway repair. He was responsible for preparing the daily report and attending all project meetings. Mr. Lemoine also reviewed and processed Contractors' invoices.</p> <p><b><u>Repairs &amp; Replacement of the 9-Mile Turnaround Spans on Lake Pontchartrain Causeway, St. Tammany and Jefferson Parishes, LA.:</u></b> Mr. Lemoine served as the inspector for pile driving and structural concrete placement. He maintained all the SiteManager records and performed sampling and testing for concrete placements on the decks. The project cost \$2M.</p>

## **TEC Professional Services Questionnaire**

**Causeway Bridge, Metairie, LA: Mr.** Lemoine held the position of Senior Bridge Inspector and Coordinator with the Greater New Orleans Expressway Commission. He inspected the installation of the dynamic boards at the Causeway bridge. Additionally, he inspected the reconstruction of the electrical system of the North Toll Plaza Building and the reconstruction of the exit road and parking lot at the North Toll Plaza.

**Louisiana Timed Program (LTM), Statewide, LA.:** Mr. Lemoine was the lead inspector assigned to the Huey P. Long Bridge widening project. He managed and inspected the widening of the current bridge to include three 11-foot travel lanes in each direction, along with inside and outside shoulders. Instead of adding pier foundations for the main river bridge, the construction plans called for the widening of pier shafts above the existing caisson foundations and the addition of two new parallel trusses to accommodate the widened roadway along the main bridge. For the approaches, new parallel structures were built to accommodate the new roadways. The construction cost \$5.2B.

**Mr. Lemoine was the Maintenance and Inspection Supervisor for the following:**

- |   |                                |
|---|--------------------------------|
| ➤ Bayou Sarah Swing Bridge                      | ➤ Kerner Swing Bridge          |
| ➤ Judge Perez Bridge                            | ➤ Kraemer Vertical Lift Bridge |
| ➤ Claiborne Avenue Bridge (Judge Seeber Bridge) | ➤ La 24 Company Canal Bridge   |
| ➤ Danziger Bridge                               | ➤ LaRose Vertical Lift Bridge  |
| ➤ US 11 North Draw                              | ➤ Lockport Swing Bridge        |
| ➤ Chef Menteur Pass                             | ➤ Bayou Black Bridge           |
| ➤ Houma Navigation Bridge                       | ➤ LA-661 Bayou LaCarpe Bridge  |
| ➤ Bayou Dularge Bridge                          | ➤ Bayou La Loutre Bridge       |
| ➤ Raceland Vertical Lift Bridge                 |                                |

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Gary Conerly Inspector
<b>Project Assignment:</b>
Resident Inspector
<b>Name of Firm with which associated:</b>
Design Engineering, Inc.
<b>Years' experience with this Firm:</b>
1
<b>Education: Degree(s)/Year/Specialization:</b>
Certifications: LaDOTD Structural Concrete Inspector, Troxler Nuclear Gauge Safety Certification, Toxler Hazmat Certification, ACI Concrete Strength Testing Technician, ACI Concrete Field-Testing Technician – Grade I, ATSSA National Flagger Certification.
<b>Active registration: Year first registered/discipline:</b>
N/A
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>Power Blvd. Median improvements (West Esplanade Ave. – Vintage Dr.):</b> Mr. Conerly is currently performing inspections for approximately 4,800 LF of the creation of a bike/pedestrian path along the median area of Power Blvd. between West Esplanade Ave. and Vintage Drive. The project includes clearing and grubbing, grading, drainage structures, pavement patching, class ii base course, precast concrete piles, lighting, concrete walks, landscaping, pedestrian bridge, and related work. Mr. Conerly prepares daily reports, which are recorded through the LADOTD site manager system, inspects the progress of the work to ensure that the contractor complies with the requirements of the plans and specifications, and attends all the progress meetings. Mr. Conerly writes in his daily diary items of work performed for the day and the comparison of quantities installed with the contractor.</p> <p><b>Macarthur Drive Interchange Completion:</b> Mr. Conerly served as the resident inspector for the Macarthur interchange project, overseeing critical aspects of construction. Mr. Conerly's role focused on concrete maturity, density, and strength inspections. His responsibilities included monitoring the demolition, pile installations, and coordination with geotechnical engineers. Mr. Conerly's expertise contributed significantly to ensuring the project's compliance with LADOTD and FHWA requirements.</p> <p><b>Huey P. Long Bridge:</b> Mr. Conerly oversaw the inspection of the Huey P. Long Bridge widening project, executed in multiple phases. The project transformed the two-lane bridge into three 11-foot travel lanes in each direction, with inner and outer shoulders. The construction plans avoided additional pier foundations for the main bridge, opting for the widening of pier shafts above existing caisson foundations. Two new parallel trusses were added to support the expanded roadway on the main bridge, while new parallel structures were built for the approaches. Mr. Conerly prepared daily reports, recorded through the project management system, ensuring compliance with plans and specifications. His daily diary documented work progress, including a detailed comparison of installed quantities with contractual specifications.</p> <p><b>Severn Avenue: Veterans - W. Esplanade:</b> Mr. Conerly provided resident inspection for the removal and replacement of roadway, sidewalks, ADA ramps, pedestrian crosswalks, and the installation of cross signals of Severn Ave. As part of the statewide transportation improvement program (STIP), the project aimed to enhance pedestrian safety in response to increased traffic. Mr. Conerly conducted concrete inspections, soil testing, compaction testing, and vibration monitoring. Mr. Conerly inspected the progress of the work to ensure that the contractor complied with the requirements of the plans and specifications.</p>



## **TEC Professional Services Questionnaire**

**Louis Armstrong International Airport:** Mr. Conerly provided resident inspection for the \$1 billion MSY Airport project. The project included constructing a new terminal, parking facilities, and a third concourse dedicated to international flights. Managing an on-site facility. Mr. Conerly's responsibilities include concrete, steel, strength, and pile inspections, ensuring strict adherence to project specifications and plans. Mr. Conerly prepared daily reports, recorded through the project management system, ensuring compliance with plans and specifications. His daily diary documented work progress, including a detailed comparison of installed quantities with contractual specifications.

**Thibodaux Regional Cancer Center:** Mr. Conerly served as the resident inspector for the Thibodaux Regional Cancer Center, a significant \$35 million project featuring a five-story building spanning nearly 100,000 square feet. This facility expansion aimed to accommodate the growth of the hospital's cancer program. Mr. Conerly supervised various aspects, including geo-lab and field activities, concrete inspections, pile inspections, and vibration monitoring, ensuring the project's compliance with specifications.


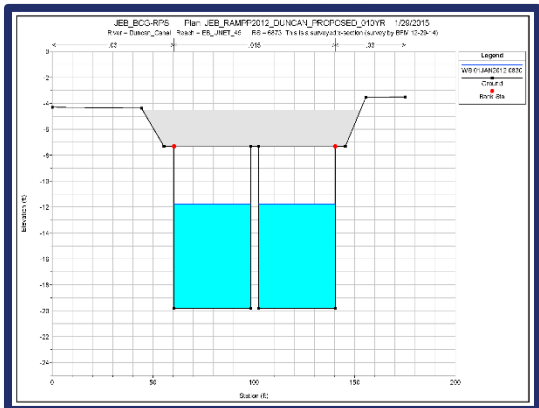
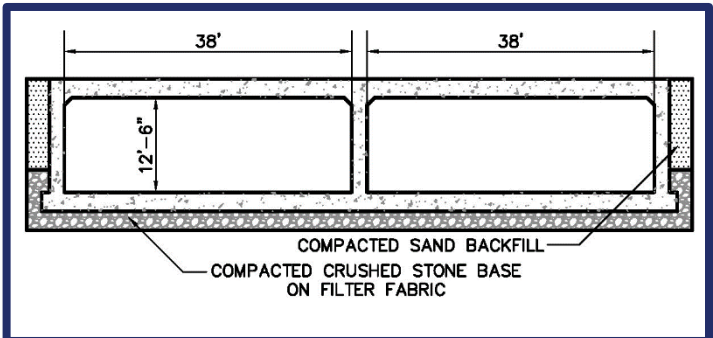
**New Orleans Youth Study and Juvenile Justice Center:** Mr. Conerly provided resident inspection for the replacement of the 54-year-old youth study center. This \$35 million New Orleans Juvenile Justice Center project includes 40 beds, courtrooms, offices, medical spaces, classrooms, and social service areas. Mr. Conerly's responsibilities included pile, concrete, steel, and density inspections, ensuring strict adherence to project specifications and plans.

**Lake Lery Marsh Creation & Rim Restoration:** Mr. Conerly provided resident inspection for the creation of 177 acres of marsh, nourishment of an additional 209 acres, and the construction of a protective embankment along Lake Leary's northwestern shoreline. Mr. Conerly's responsibilities included managing geotechnical engineering, overseeing soil borings, and ensuring strict adherence to project specifications and plans.



## TEC Professional Services Questionnaire

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

### PROJECT NO. 1



Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Duncan Canal Bridge Replacement Kenner, Louisiana</b></p> <p>Jose Gonzalez City of Kenner 1610 Reverend Richard Wilson Dr. Kenner, LA 70062 (504) 468-7515</p>	<p>This project is located at the confluence of West Esplanade Canal and Duncan Canal in the City of Kenner (Jefferson Parish). The objective of the project is to reduce restriction in both Canals by removing the aging wooden bridge structures and replacing it with <b>two modern large double barrel concrete box culverts</b> (2 boxes in each canal).</p> <p>A secondary objective is to reduce the "perch" of the bridges so that traffic sight lines are improved. This will result in increased driving safety, which is an important feature in this highly trafficked corridor which is adjacent to multiple retail outlets, a shopping mall, and several residential areas.</p> <p>Another secondary objective is to improve the location aesthetically by removing the unsightly structures and <b>replacing them with large box culverts</b> that will enclose large portions of the canals, add green space, and allow for decorative landscaping as well as potential recreation.</p> <p>Design Engineering, Inc. performed multiple planning, design, and engineering tasks, most notably the <b>hydraulic analysis for this primary drainage canal for the City of Kenner</b> as well as the <b>structural design</b> for the boxes. The Duncan Boxes alone are <b>over 13 feet tall and 80 feet wide</b> inside the openings (the actual structure is of course much larger).</p>	
 		
<p><b>Completion Date (Actual or estimated):</b></p>	<p><b>Estimated Cost:</b></p>	
	<p><b>Entire Project:</b></p>	<p><b>Work for which Firm was Responsible:</b></p>
<p>2017</p>	<p>\$12,503,000.00</p>	<p>\$9,230,000.00</p>

## TEC Professional Services Questionnaire

PROJECT NO. 2								
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:							
<p><b>West Esplanade Avenue Crossing (Between Williams Blvd. and Power Blvd.)</b></p> <p>Mitch Theriot Jefferson Parish Engineering 1221 Elmwood Park Blvd. Jefferson, Louisiana (504) 736-6512</p>	<p>DEI was contracted by Jefferson Parish to provide feasibility/ conceptualization, hydraulic engineering, preliminary and final plans, construction administration, and resident inspection services for the improvements to the West Esplanade Avenue Crossing (Between Williams Blvd. and Power Blvd.)</p> <p>This project included the installation of <b>500 feet of twin 96" diameter reinforced concrete arch pipes</b> with headwalls to accommodate crossing of West Esplanade Avenue Median Canal and the installation of reinforced concrete u-shaped transitions structures from 96" diameter reinforced concrete arch pipe headwall to earthen canal.</p> <p>The project also required <b>large confluence boxes</b> as well as on site adjustment to drainage laterals in order to avoid penetration of the recycled pipe that was used in the project in order to save costs and use a resiliency design technique.</p> <p>The West Esplanade Avenue Median Canal Crossing also consisted of the following:</p> <ul style="list-style-type: none"> <li>50 ft. taper to 100 ft. storage lane to east-to-west U-turn;</li> <li>4-lane crossing with traffic signal system;</li> <li>50 ft. taper to 200 ft. storage lane to west-to-east U-turn</li> </ul>							
								
<p><b>Completion Date (Actual or estimated):</b></p>	<p style="text-align: center;"><b>Estimated Cost:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #d9e1f2;"> <th style="width: 50%; padding: 5px;">Entire Project:</th> <th style="width: 50%; padding: 5px;">Work for which Firm was Responsible:</th> </tr> <tr> <td style="text-align: center; padding: 5px;">2017</td> <td style="text-align: center; padding: 5px;"> <table> <tr> <td style="width: 50%; text-align: center; padding: 5px;">\$3,000,000.00</td> <td style="width: 50%; text-align: center; padding: 5px;">\$3,000,000.00</td> </tr> </table> </td> </tr> </table>		Entire Project:	Work for which Firm was Responsible:	2017	<table> <tr> <td style="width: 50%; text-align: center; padding: 5px;">\$3,000,000.00</td> <td style="width: 50%; text-align: center; padding: 5px;">\$3,000,000.00</td> </tr> </table>	\$3,000,000.00	\$3,000,000.00
Entire Project:	Work for which Firm was Responsible:							
2017	<table> <tr> <td style="width: 50%; text-align: center; padding: 5px;">\$3,000,000.00</td> <td style="width: 50%; text-align: center; padding: 5px;">\$3,000,000.00</td> </tr> </table>	\$3,000,000.00	\$3,000,000.00					
\$3,000,000.00	\$3,000,000.00							



## TEC Professional Services Questionnaire



PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
<p><b>Frisco Avenue Drainage Improvements Jefferson Parish, Louisiana</b></p> <p>Mitch Theriot Jefferson Parish Drainage Department 1221 Elmwood Park Blvd. Jefferson, LA (504) 736-6505</p>	<p>The project area is located in Old Metairie in Jefferson Parish, Louisiana. The drainage system in this study is part of the Old Metairie basin which discharges via Lake Avenue into the Canal Street Canal.</p> <p>Design Engineering, Inc. (DEI) was contracted by Jefferson Parish to study and <b>improve the hydraulic characteristics of the Frisco Drainage Sub-Basin</b> in Old Metairie which includes the corner of Metairie Road and Frisco Avenue, Frisco Avenue, and Lake Avenue. Currently, the corner of Metairie Road and Frisco Avenue experiences issues with flooding even during minor rain events.</p> <p>DEI modeled the drainage system and was able to determine areas of concern in the present system. Improvements to the system were also modeled to provide the Parish with recommendations to address claims of flooding the shops along Metairie Road during severe storm events.</p> <p>DEI's analysis of the Frisco Drainage Sub-Basin and its respective subsurface drainage system indicates conveyance issues negatively affect the corner of Metairie Road and Frisco Avenue during the design storm event. The results indicate that drainage lines are generally undersized and require substantial upsizing to improve hydraulic performance.</p> <p>DEI re-designed the drainage system to improve hydraulic performance and alleviate flooding. The drainage system and parking lot at the corner of Metairie Road and Frisco Avenue were also re-designed to improve stormwater conveyance and collection. The design team overcame challenges associated with conflicting utilities (e.g. sewer, water, gas, electrical &amp; fiber optic lines) while limiting head loss in the drainage system. Additionally, due to the close proximity of Norfolk Southern's rail line, the design team had to work with the railroad to develop Plans that would meet strict railroad requirements (i.e. minimal railroad disruption, maintain slope stability, etc.).</p>	
 		
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2019	\$1,250,000.00	\$1,250,000.00

## TEC Professional Services Questionnaire



PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Northbound Manhattan Boulevard Continuous Right Turn Lane Jefferson Parish, LA</b></p> <p>Juan Gutierrez Jefferson Parish Engineering 1221 Elmwood Park Blvd. Jefferson, LA (504) 736-6505</p>	<p>Design Engineering, Inc. (DEI) was responsible for the Feasibility Study, Preliminary and Final Designs, Construction Administration, and Inspection Services for this project. This project included construction of an additional asphaltic concrete northbound lane for Manhattan Blvd. (Gretna Blvd. to West Bank Expressway) with a concrete combination curb and gutter, <b>subsurface drainage</b>, replacement of existing gravity sewer line, relocation of existing water line and sewer force main, and removal and replacement of existing concrete walks and drives under heavy traffic conditions and electrical services. The project also involved acquisition of substantial properties.</p> <p>Project Objectives:</p> <ul style="list-style-type: none"> <li>To design and construct an additional asphaltic concrete lane to reduce traffic congestion along the Manhattan Blvd. –between Gretna Blvd. and the West Bank Expressway.</li> <li>The project also required acquisition of property, traffic management and an expedited seven (7) day and night work schedule, in addition to design and construction engineering and inspection services.</li> <li>This project was approximately 5,500 LF on Manhattan Blvd.</li> </ul> <p><u>Design Phase:</u> The design phase included the design of an additional lane of vehicular traffic to the Northbound Manhattan Blvd. from Gretna Blvd. to US Highway 90 Business (South Side). This lane was added to the property side of the existing roadway (Manhattan Blvd. Northbound) a distance of approximately 5,500 LF. The added lane begins at Gretna Blvd. and ends as a right turn lane at US Hwy 90 B Eastbound (West Bank Expressway) in order to reduce traffic congestion on Northbound Manhattan Blvd.</p> <p><u>Construction Phase:</u> DEI was responsible for the construction administration and inspection services on the replacement and/or relocation of underground utilities, <b>drainage, and subsurface drainage under the additional lane</b> while having the existing two (2) traffic lanes open at all times except when work was scheduled at night where a lane could be closed between 10:00 pm to 6:00 am. The project construction continued for 7 days a week for approximately 244 days. Also included in this project was the placement of new 12" sub-base, 12" base course and 12" asphaltic concrete, and new driveways. DEI coordinated with the contractor to make sure that the businesses and vehicular traffic had the least interruption possible when working on the new driveways, traffic signalization, laying of the asphaltic concrete (<b>at night</b>), and pavement striping (<b>at night</b>).</p> <p>Manhattan is a heavy-traffic main corridor for the West Bank of Jefferson Parish. Our firm worked closely with local and state authorities as well as business owners to ensure the least disruption possible for the traveling public and business. We provided services to assist the contractor in working <b>weekends, nights</b>, and as necessary to accommodate up to six (6) crews working <b>24-hour schedules</b>. We understood the need to be completely flexible with the work schedule at this location.</p> <p>The project was completed "32" days ahead of the scheduled substantial completion date and on budget. This project concluded on November 1, 2012 successfully with our current staff expending a significant effort to successfully construct the project on this very highly trafficked roadway.</p>	
<div style="display: flex; flex-direction: column; align-items: center;">   </div>		
	Completion Date (Actual or estimated):	Estimated Cost:
	Entire Project:	Work for which Firm was Responsible:
2012	\$3,783,000.00	\$892,000.00



## TEC Professional Services Questionnaire




PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Airline Drive Drainage Crossing (St. Peter's Ditch)</b>  <b>Jefferson Parish, LA</b></p> <p>Mark Drewes            Jefferson Parish Engineering            1221 Elmwood Park Blvd.            Jefferson, LA            (504) 736-6505</p>	<p>This project included drainage improvements to the existing St. Peter's Ditch which extends in the north-south direction approximately 2,000 feet from Cross Canal to Airline Drive and approximately 2,500 feet from Airline Drive to West Metairie Drive. The project was divided into three (3) phases and included deepening and widening the existing ditch and the installation of cast-in-place concrete U-channels, reinforced concrete <b>box culverts and drainage piping</b>. Design Engineering, Inc. (DEI) prepared plans and specifications for preliminary and final design and conducted construction administration and resident inspection services on Phase 3B to <b>supplement drainage</b> across Airline Drive.</p> <p>Phase 3B of this project included approximately <b>365 feet of drainage improvements</b> near Airline Drive. DEI studied several alternatives in an effort to avoid the open cut of Airline Drive to remove an existing reinforced concrete box culvert and construct a new box culvert, thus adversely affecting traffic on Airline Drive for an extended period of time. In order to reduce the impact of construction on Airline Drive traffic, the accepted alternative was to retain the existing box culvert and supplement the existing box culvert by installing four (4) 42" diameter fiberglass reinforced pipes, approximately 124 feet in length, beneath Airline Drive by using trenchless construction utilizing micro tunneling or hand tunneling methods. The project also included the relocation of existing utilities, <b>including a 24" drain line, a 30" drain line</b>, a 20" water line, an 8" water line, a gas line, a telephone line, fiberoptic lines and Entergy lines.</p>	
		
		
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2014	\$3,500,000.00	\$150,000.00

## TEC Professional Services Questionnaire

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Westwood Drive (WB Expy. to Lapalco)</b>  <b>Jefferson Parish, LA</b></p> <p>Mark Drewes            Jefferson Parish Engineering            1221 Elmwood Park Blvd.            Jefferson, LA            (504) 736-6505</p>	<p>Design Engineering, Inc. (DEI) is responsible for providing the construction contract administration and construction engineering inspection services for the construction of 0.648 miles of roadway which includes 20,516 SY of Portland Cement Concrete Pavement with barrier curb, mountable curb and gutter, including Class II base course, <b>drainage pipes and structures</b>, sanitary sewer and related work, and tie-in to the existing Westbank Expressway on the north end and Lapalco Blvd. on the south end. Pavement striping, sign and legends and symbols are also included. Construction Management performed by the office and site personnel includes:</p> <ul style="list-style-type: none"> <li>Schedule and attend the preconstruction meeting</li> <li>Maintain all construction field records; make daily entries in the project diary to indicate the contractor's personnel and equipment being utilized on the project, the work being accepted, the acceptability of traffic control, and the charging of contract time. <b>All of these activities are managed through LADOTD's Site Manager Program.</b></li> <li>Coordinate with Jefferson Parish Engineer/Representative for all relocations/adjustments of utility facilities and existing drainage structures for the construction of work site.</li> <li>Inspect the Contractor's construction operations (daily) to ensure that all work is performed in accordance with the specified plans and specifications.</li> <li>Prepare final estimate packages, including Form 2059 – "Summary of Test Results" in conformance with the DOTD's requirements.</li> <li>Prepare plan changes and change orders.</li> <li>Review and process Contractor's invoices and generate partial estimates and weather and workday reports in <b>Site Manager</b>.</li> </ul> <p>Work on the 175 project closeout and submit all documents required by LADOTD Baton Rouge, Construction Audit.</p>	
  		
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2020	\$602,000.00	\$602,000.00



## TEC Professional Services Questionnaire




PROJECT NO. 7								
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:							
<p><b>Fleur de Lis Drive Reconstruction – Phase II (Veterans Memorial Blvd. to North of 30<sup>th</sup> Street) New Orleans, LA</b></p> <p>Marvin Thompson City of New Orleans, DPW 1300 Perdido Street New Orleans, LA (504) 658-8047</p>	<p>Design Engineering, Inc. was under contract with the Louisiana Department of Transportation and Development and the City of New Orleans to provide the modification of design, construction contract administration, and construction engineering and resident inspection services for the referenced project. The project construction period was 250 calendar days, and the value of the construction contract was \$10,804,998.00. On-site project representative services were provided for construction of roadway, <b>drainage structures and drain lines</b>, sewer lines, Class II Base Course, Portland Cement Concrete pavement, asphalt patching, Superpave asphaltic concrete pavement, water distribution system, placing pavement markings, traffic signal loop detectors, landscaping (tree removals and replacement) and related work. The entire construction administration for this project was managed through SiteManager (i.e., change orders, daily reports, generating monthly estimates and pay request).</p> <p>Construction Management performed by office and site personnel:</p> <ol style="list-style-type: none"> <li>1. Scheduled and attended the preconstruction meeting.</li> <li>2. Conducted the meeting and maintained minutes of the meeting.</li> <li>3. Maintained all construction field records; made daily entries in the project diary to indicate the Consultant's personnel and equipment being utilized on the project, the work being accepted, the acceptability of traffic control, and the charging of contract time. <b>All of these activities were managed through LADOTD's SiteManager Program; Critical Path Scheduling; Primavera P6 Software and Bentley ProjectWise.</b></li> <li>4. Coordinated with the City Engineer/Representative for all relocations/adjustments of utility facilities for the construction of work site.</li> <li>5. Inspected the Contractor's construction operations (daily) to ensure that all work was performed in accordance with the specified plans and specifications.</li> <li>6. Kept clear and concise records of the contractual operations, prepared monthly pay estimates, and made monthly progress reports in conformance with the DOTD's requirements.</li> <li>7. Prepared final estimate packages, including Form 2059 – "Summary of Test Results" in conformance with the DOTD's requirements.</li> <li>8. Reviewed all form work drawings and submitted to the DOTD for further handling, review, and distribution.</li> <li>9. Coordinated construction activities between engineer, owner, DOTD and FHWA. Followed DOTD procedures for reporting and documentation of pay request.</li> <li>10. Participated in conferences, visited job site, and participated in inspections by DOTD representative.</li> <li>11. Prepared and submitted as-built plans with the final estimates.</li> <li>12. Prepared field change authorizations</li> <li>13. Prepared plan changes and change orders.</li> <li>14. Monitored and documented construction claims and provided recommendation on disposition of claims.</li> </ol>							
<div style="display: flex; flex-direction: column; align-items: center;">    </div>	<p style="text-align: center;"><b>Estimated Cost:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%; background-color: #d9e1f2;">Completion Date (Actual or estimated):</th> <th style="width: 35%; background-color: #d9e1f2;">Entire Project:</th> <th style="width: 35%; background-color: #d9e1f2;">Work for which Firm was Responsible:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2010</td> <td style="text-align: center;">\$1,224,990.00</td> <td style="text-align: center;">\$1,224,990.00</td> </tr> </tbody> </table>		Completion Date (Actual or estimated):	Entire Project:	Work for which Firm was Responsible:	2010	\$1,224,990.00	\$1,224,990.00
	Completion Date (Actual or estimated):	Entire Project:	Work for which Firm was Responsible:					
2010	\$1,224,990.00	\$1,224,990.00						

## TEC Professional Services Questionnaire

PROJECT NO. 8						
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:					
<p><b>Algiers Canal Pumping Station Project (Planters Pumping Station)</b> Jefferson Parish, LA</p> <p>Craig Waugaman USACE Leake Avenue New Orleans, LA (504) 862-2673</p>	<p>This U.S. Army Corps of Engineers' project involved the <b>extension of nine (9) steel drainage discharge pipes</b> (eight-84 in. diameter and one-36 in. diameter), installation of discharge pipe valves and associated electrical and mechanical work, construction of a concrete flood protection T-Wall (consisting of pile foundation, wall and base slab) within the existing discharge basin, concrete scour protection at the location where the required T-wall ties into an existing earthen levee system at both ends of the improvement and a concrete dolphin protection system. In addition, miscellaneous work required for this project included placement and compaction of earthen backfill material and lightweight aggregate, construction of concrete paving between the pump station's existing I-wall and required T-wall, construction of a steel walkway for the pipe extensions, and installation of a storm drain line behind the required T-wall. This project was a part of the Army Corps of Engineers' work for the New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS).</p> <p>The majority of this project required the utilization of cast-in-place concrete made of Type I cement with 20% Class F Flyash replacement, precast concrete piles made of Type I cement concrete, and a combination of cast-in-place and precast concrete pile bents made of high early strength Type III cement concrete. Cast-in-place concrete was utilized for the required concrete T-wall constructed in the discharge basin of the pump station, the required concrete scour protection slope paving at the tie-in locations with the existing earthen levee, concrete paving between the existing pump station I-wall and required T-wall, and a limited number concrete pile bents. Precast concrete piles and precast bents were utilized to construct the new walkway and the discharge pipe supports.</p> <p>The entire project was designed and constructed as per the U.S. Army Corps of Engineers Hurricane and Storm Drainage Risk Reduction System Design Guidelines of 2008. All structural loads resulting from storm water at still water level, low water level and up to the top of T-wall, structural fill, storm surge wave action, barge impact, construction surcharge, and wind were incorporated in the design of the concrete T-wall. In addition, the cofferdams required for the construction of T-walls had concrete wing wall elements which were designed for temporary loads resulting from construction and water drawdown conditions. Temporary concrete pipe supports were also provided when necessary to facilitate pump discharging operations. The permanent pipe supports were designed to carry the discharge pipes and all associated loads. The Dolphin system was designed for 100 kips of barge impact load.</p> <p>DEI provided the <b>Design, Engineering During Construction, and Project Closeout</b> for all civil and structural engineering of this \$35,000,000 project. This project received the following <b>American Concrete Institute awards in November 2012:</b></p> <ul style="list-style-type: none"> <li><b>Overall Best Project</b></li> <li><b>Best Concrete Sustainability</b></li> <li><b>Award of Excellence (Best Project of 2012)</b></li> </ul>					
  	<p><b>Estimated Cost:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #d9e1f2; text-align: center;">Entire Project:</th> <th style="background-color: #d9e1f2; text-align: center;">Work for which Firm was Responsible:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">\$35,000,000.00</td> <td style="text-align: center;">\$8,750,000.00</td> </tr> </tbody> </table>		Entire Project:	Work for which Firm was Responsible:	\$35,000,000.00	\$8,750,000.00
	Entire Project:	Work for which Firm was Responsible:				
	\$35,000,000.00	\$8,750,000.00				
<p><b>Completion Date (Actual or estimated):</b></p> <p style="text-align: center;">2012</p>						



## TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Audubon Boulevard (Willow – South Claiborne)</b>  <b>New Orleans, LA</b></p> <p>Marvin Thompson            City of New Orleans, DPW            1300 Perdido Street            New Orleans, LA            (504) 658-8042</p>	<p>Design Engineering, Inc. (DEI) was responsible for providing all services required for preparation of preliminary design plans, final design plans, specifications, and bid documents for the reconstruction of Audubon Boulevard (Willow Street – South Claiborne Avenue). DEI was also responsible for the following design features: roadway pavement complete with curbs; a base for the roadway pavement; <b>subsurface drainage</b>; water and sanitary sewer installation, modifications, adjustments, and repair as required; adjustments as required at driveways, at intersecting streets, and at project termini. Final grades were to be compatible with adjacent properties and insured a positive flow of water towards catch basins. Installation of ramps for the handicapped at intersections (including medians) were included.</p> <p>Specifically, this project included the preliminary and final design, construction administration, and resident inspection for 2,900 LF of new roadway. Included in the project for Audubon Boulevard was a divided roadway with raised median, a new concrete roadway with <b>2,900 LF of subsurface drainage</b> varying in size from 12"ø to 60"ø RCPA equivalent, 2900 LF of 8" water main and 3000 LF of 8" sewer line, gas line, and electric line relocation, new water meter and new sewer, water house connections, cold planning and overlaying on side streets. During the project design phase DEI prepared project specifications, DOTD permitting and prepared cost estimates.</p>	
<div style="text-align: center;">    </div>		
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2012	\$1,403,488.00	\$1,403,488.00



## TEC Professional Services Questionnaire

<b>PROJECT NO. 10</b>								
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>							
<p><b>MacArthur Drive Interchange Completion Phase 1A – (At-Grade Roadway &amp; Bridges), Westwego, Gretna, LA</b></p> <p>Mark Drewes Jefferson Parish Engineering Dept. 1221 Elmwood Park Blvd. Jefferson, LA (504) 736-6505</p>	<p>Macarthur Drive Interchange Completion (On and Off Ramps For Peters Road) – Phase 1A (At-Grade Roadway) - includes the demolition of a portion of the existing service road and the relocation of the service road to accommodate the new bridges to be constructed under Phase 1B of this project. The bridges will be constructed using Type II girders and trapezoidal box girders supported on single pier bents with pile footings to match the aesthetics of the existing Westbank Expressway Bridge. The work includes the relocation of existing utilities, including water mains and appurtenances, gas lines, as well as overhead and below ground power lines; the construction of <b>storm drain pipes and manholes; the extension of the existing reinforced concrete box culvert</b>; and the construction of the new relocated service road, including the installation of a compacted sand sub-base course, crushed limestone base course, Superpave asphaltic concrete binder and wearing courses, as well as concrete curb and gutters, concrete driveways and concrete sidewalks.</p> <p>DEI has been engaged to provide the necessary engineering services to complete the project.</p> <p>DEI is providing the design for:</p> <ul style="list-style-type: none"> <li>✓ All geometric design incorporating the required safety features</li> <li>✓ Column clearance designs</li> <li>✓ <b>Utility relocations</b></li> <li>✓ Foundation Clearance design</li> <li>✓ Attention to the coordination of very large columns within the roadway right-of-way</li> <li>✓ <b>Drainage design</b></li> <li>✓ At-grade roadway relocation</li> <li>✓ Right-of-way plans</li> <li>✓ Temporary retaining structure for pile supported columns</li> <li>✓ Management of roadway &amp; bridge design team during construction</li> <li>✓ Major public presentations and meetings with affected property owners.</li> </ul> <p>The project is rated as very complex by the LADOTD. Phase 1A bid at \$4,400,000.00</p>							
 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d9e1f2;"> <th colspan="2" style="text-align: center; padding: 5px;"><b>Estimated Cost:</b></th> </tr> <tr style="background-color: #d9e1f2;"> <th style="width: 50%; padding: 5px; text-align: center;"><b>Entire Project:</b></th> <th style="width: 50%; padding: 5px; text-align: center;"><b>Work for which Firm was Responsible:</b></th> </tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 5px;">2016</td> <td style="text-align: center; padding: 5px;">\$39,000,000.00</td> </tr> </tbody> </table>		<b>Estimated Cost:</b>		<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>	2016	\$39,000,000.00
	<b>Estimated Cost:</b>							
<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>							
2016	\$39,000,000.00							
2016	\$39,000,000.00	\$4,700,000.00						

## 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		
2.		
3.		
4.		

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



Design Engineering, Inc. (DEI), a Jefferson Parish Woman Owned Small Business, is a highly qualified professional engineering services firm and has been engaged in the engineering business in Jefferson Parish for over 40 years. Since 1984, DEI has focused much of its efforts on designing and constructing large and complex drainage and flood control projects in Jefferson Parish, including large box culverts, large reinforced concrete pipes, and massive drainage pumping stations. DEI maintains excellent daily working relationships with Jefferson Parish and is well-versed in the challenges and complications of the project and has the technical expertise to produce successfully for Jefferson Parish.

### **MINIMUM REQUIREMENTS FOR SELECTION**

1. One principal who is a professional engineer who shall be registered as such in Louisiana.

Design Engineering, Inc. has several personnel that meet this requirement. For the sake of brevity, we have included only Dr. Martin. **Jim Martin, Ph.D., P.E.** has over 20 years of design and management experience with Civil Engineering **drainage projects** and is a Registered Professional Engineer in the State of Louisiana with a doctorate degree in hydraulics (specifically researching open channel flows).

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

Design Engineering, Inc. has several personnel that meet this requirement. For the sake of brevity, we have

## TEC Professional Services Questionnaire

included only Mr. Holtgreve. **John Holtgreve, P.E.** has over 50 years of design and management experience with Jefferson Parish **drainage projects** and is a Registered Professional Engineer in the State of Louisiana with vast experience in roadway design, highway design, **drainage improvements**, water and sewer systems, flood control projects, underground utilities, and bridge design projects.



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

Design Engineering, Inc. (DEI) has six (6) full-time professional engineers registered in the State of Louisiana with over 135 years combined experience in **drainage design**, culvert design, and roadway design. DEI will make available as many as all six (6) professional engineers for this project.

### EVALUATION CRITERIA

#### 1. PROFESSIONAL TRAINING AND EXPERIENCE (35 POINTS):

Design Engineering, Inc. (DEI) has extensive local project experience and specialized engineering and design experience for **drainage** projects. DEI presently has on staff the technical, supervisory, and administrative personnel to provide professional engineering services related to drainage projects and can assure the expeditious handling of the work.

For many years, the DEI staff has executed design and construction administration of key projects throughout Jefferson Parish with success. DEI personnel are prepared to address the challenging issues of cost and time that face the Jefferson Parish Department of Public Works specific to this project.

We have pointed out some of our significant key projects for which we have provided important design. Our engineering and management staff has designed and constructed all of the projects presented. We list some of the personnel below who have been significantly involved in the process.

**Jim Martin, Ph.D., P.E.**, is President of Design Engineering, Inc. and has over 20 years of experience in Research, Analysis, Design, and Construction of hydraulic projects throughout the State of Louisiana. From the very beginning of his career, **drainage projects** have been an emphasis. (Please note the projects in his resume contained herein.) Dr. Martin holds an undergraduate degree in Civil Engineering from the University of Alabama, a Masters from Tulane University in Environmental Engineering, and a Doctorate from Tulane (primarily based on fluids research). Dr. Martin is a registered Professional Engineer in Louisiana, Alabama, and Georgia and is President of the New Orleans Chapter of American Consulting Engineers Council/Louisiana and Past President of the New Orleans Chapter of ASCE. Recently he was certified as a Coastal Engineer by Old Dominion University in Virginia.

**John W. Holtgreve, P.E.** is Executive Vice President of Design Engineering, Inc. and will serve as *Project Manager* for DEI and as a *Civil Engineer* for this project. Mr. Holtgreve has over 50 years of professional consulting engineering experience and has worked as Project Manager and Principal-in-Charge for numerous **drainage improvement projects**. (Please note the projects in his resume contained herein.) Mr. Holtgreve holds a BS and an MS in Civil Engineering from Tulane University and is a Registered Professional Engineer in the State of Louisiana. Mr. Holtgreve's past professional experience includes American Society of Civil Engineering (Past State Board Member), American Consulting Engineers Council/Louisiana (Past President and Board Member), American Consulting Engineers Council





## TEC Professional Services Questionnaire

(National Director), Society of American Military Engineers, American Concrete Institute, American Public Works Association.

**Taylor Hebert, P.E.**, brings over 7 years of professional engineering experience to his role as Civil Engineer for this project. With a Bachelor of Science in Civil Engineering from the University of Georgia, Mr. Hebert is a licensed Professional Civil Engineer in the state of Louisiana. He has extensive experience in designing and managing a variety of civil projects, including hurricane and flood protection, **drainage infrastructure**, and roadway improvements. Additionally, Mr. Hebert is certified in the ATSSA Traffic Control Technician, and ATSSA Traffic Control Supervisor and Flagger Course as required by the LADOTD.

**Brady Pechon, P.E.**, has 6 years of professional engineering experience and will serve as a Civil Engineer for this project. Holding a Bachelor of Science in Civil Engineering from Louisiana State University, Mr. Pechon is a licensed Professional Civil Engineer in the state of Louisiana. His expertise includes **drainage**, roadway, site, and quantity calculations, along with adept handling of complex permitting issues concerning Railroad Rights-of-way. Additionally, Mr. Pechon is certified in the ATSSA Traffic Control Technician and ATSSA Traffic Control Supervisor and Flagger Course, ensuring compliance with essential regulations.

**Collin Gillen, P.E.**, brings 4 years of professional engineering experience and will serve as a Civil Engineer for this project. Mr. Gillen holds a Bachelor of Science in Civil Engineering from Louisiana State University and is a licensed Professional Civil Engineer. His expertise in the field of civil engineering has been invaluable in the design and construction of several multi-million-dollar projects, including bridges, roads, and **drainage systems**. He is certified in the ATSSA Traffic Control Technician, and ATSSA Traffic Control Supervisor and Flagger Course as required by the LADOTD.

**Max Shukla, P.E.**, of DEI, will serve as a *Structural Engineer* for this project. Mr. Shukla has decades of experience working on numerous civil and structural projects in the Greater New Orleans Area, including bridge design, roadway design, highway design, flood control projects, **underground utilities**, water and sewer systems, and **drainage improvement** projects. Several of his designs have won awards for DEI. He holds a BS and a MS in Civil Engineering and is a Registered Professional Engineer in the State of Louisiana.

### **2. SIZE OF FIRM (10 POINTS):**

Unlike at larger firms, DEI utilizes its most senior professionals and executives as actual engineers, rather than exclusively as executives or "rainmakers." Engineers with 40 years' experience simply do not perform the engineering work on a hands-on basis at other firms. All of DEI's engineers in this submittal will participate in the intimate details of the engineering required for this project. Conversely, smaller firms simply do not have the depth and breadth of experience, nor the technical resources, that DEI has. Simply put, **DEI combines the experience and technical resources of a large firm with the attention to detail and customer service of a small firm**. DEI presently has on staff sufficient technical, supervisory, and administrative personnel to provide the required services and can assure the successful completion of this project.

### **3. CAPACITY FOR TIMELY COMPLETION OF NEWLY ASSIGNED WORK (20 POINTS):**

The designs of several drainage projects have been recently completed or are near completion. Therefore, we have a large engineering team available to jump on this project. This project can be easily absorbed by the firm, as we have substantial reserve production capacity to meet any reasonable project scheduling.

### **4. PAST PERFORMANCE ON PARISH CONTRACTS (10 POINTS):**

DEI is a Jefferson Parish company that has won awards for its work in Jefferson Parish (among other places).

**DEI was awarded the ACI Louisiana Award for Best Project of 2012, Best Public Works Project of 2012, and the Award for Sustainability for its work on the Planters Pumping Station Frontal Protection Project (located in Jefferson Parish).**



## **TEC Professional Services Questionnaire**

**The latest award we received was the ACI Louisiana Award of Excellence and the Overall Best Concrete Project for MacArthur Interchange Completion Project – Phase 1B in 2016 (Jefferson Parish).**

The Wilker Neal at Airline Drive construction project was completed on time and without a single change order. The Veterans Boulevard Widening, Roosevelt to Williams project was completed on time as well in a difficult traffic situation and with no complaints from adjacent property owners during or after construction.

The Manhattan Blvd. Widening was successfully completed amid some of the highest levels of traffic anywhere in the Parish.

Design Engineering, Inc. has designed and administered the construction contracts for award winning projects. DEI received a Certificate of Exceptional Performance from the USACE for work that included, among others, pump station design. The Lakefront Airport Bridge (East Approach) has won several awards including Best Project of the Year in the State of Louisiana by the ACI Louisiana Chapter. The project also received awards from the Precast/Prestressed Concrete Institute including Best Project of the Year in Louisiana and second overall for the Southern Region.

DEI also won the ACI Louisiana Award of Excellence and Best Public Improvement Project for its work on the Lakefront Seawall Area Erosion Control Project in 2014.

- Our firm has completed each task assigned in a timely manner.
- We have remained within budget.
- We have been singled out on numerous occasions for local and regional awards.



### **5. LOCATION OF OFFICE (15 POINTS):**

Design Engineering, Inc. maintains its office in Jefferson Parish at 3330 West Esplanade Avenue, Suite 205, Metairie, Louisiana and has done so for 40 years.

Our Firm knows the territory.

- We are headquartered in Jefferson Parish and have outstanding geographic proximity to serve Jefferson Parish under this assignment.
- We have worked with all facets of federal, state, and local governments as well as local communities and private industry in excess of 40 years as individuals and in excess of 38 years as a firm.
- All of our proposed project personnel work in Jefferson Parish (and most of them live here as well).
- We can and will provide responsive services to Jefferson Parish as demanded for this project.

### **6. ADVERSARIAL LEGAL PROCEEDINGS (15 POINTS):**

Design Engineering, Inc. is not now, nor has it ever been, involved in any adversarial legal proceedings between the Parish and any related parties.

### **7. PRIOR SUCCESSFUL COMPLETION OF PROJECTS OF THE TYPE AND NATURE OF THE ENGINEERING SERVICES (5 POINTS):**

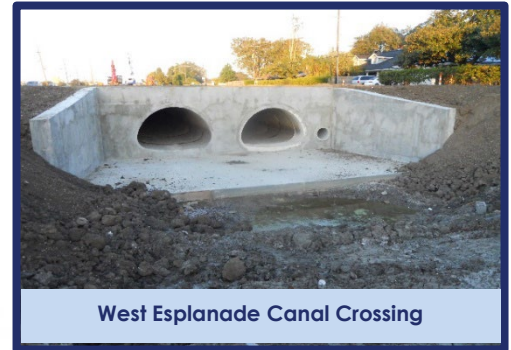
DEI has completed dozens of successful drainage projects in Greater New Orleans that required new drainage structures, earthwork, roadway reconstruction, and utilities relocation work. Many are shown herein, and a brief listing is shown below:

- **Airline Drive Drainage Crossing - St. Peter's Ditch:** Design, Construction Administration, and Resident Inspection for drainage improvements to the existing St. Peter's Ditch.



## TEC Professional Services Questionnaire

- **Duncan Canal Bridge Replacement:** Planning, design, and engineering tasks, most notably the hydraulic analysis and structural design for the primary drainage canal in Kenner.
- **West Esplanade Canal Crossing:** feasibility/ conceptualization, hydraulic engineering, preliminary and final plans, construction administration, and resident inspection services for the improvements to the West Esplanade Avenue Crossing (Between Williams Blvd. and Power Blvd.)
- **Northbound Manhattan Boulevard Continuous Right Turn Lane:** Design, Construction Administration, Construction Engineering, and Resident Inspection for the widening the roadway which included drainage and subsurface drainage under the additional lane.
- **Wilker Neal Drive at Airline Drive:** Design, Construction Administration, and Resident Inspection for a new 1100 foot long double celled 8'x8' reinforced concrete box culvert.
- **Robert E. Lee Boulevard Improvements:** Wickfield Dr. to Elysian Fields Ave.: Design, Construction Engineering and Resident Inspection (drainage structures and drain lines).
- **Robert E. Lee Boulevard Improvements:** Paris Avenue to Pratt Drive: Design, Construction Management and Resident Inspection (drainage structures and drain lines).
- **Fleur de Lis Drive Reconstruction – Phase II:** DEI provided the Design, Construction Management and Resident Inspection for this project. (drainage structures and drain lines)
- **Audubon Boulevard Street Improvement Project (Willow St. to South Claiborne Ave.):** Design, Construction Engineering and Resident Inspection (subsurface drainage)
- **Veterans Blvd. Widening:** Roosevelt to Williams: addition of one lane in each direction and left-turn and U-turn lanes with complete overlay (subsurface drainage)
- **Macarthur Dr. Interchange Completion Project (At-Grade Roadway & Bridges):** Design, Construction Engineering and Support of a frontage road along the elevated Westbank Expressway (storm drain pipes).
- **Dwyer Drainage Pumping Station, Discharge Tubes and Canal:** Design, Construction Engineering and Resident Inspection (drainage discharge).
- **Algiers Canal Pumping Station Project (Planters Pumping Station):** Design and Engineering During Construction (extension of nine (9) steel drainage discharge pipes)



### PAST AND CURRENT PROFESSIONAL ACCOMPLISHMENTS:

Design Engineering, Inc. has over 40 years of experience providing engineering design and analysis and construction management of sewer systems, water systems, **drainage systems** and pumping stations, roadways, site facilities, marinas, levees, floodwalls, and floodgates. DEI has served as project coordinator on many complex projects including a major hurricane and flood protection project that involved more than 80 projects totaling over \$400 million. DEI maintains the highest quality projects in its portfolio of any firm in the region. Over the years DEI has received many awards and accolades for the professional services it has provided. Below is a list of some of these awards, several of which are for work that was performed in Jefferson Parish.

Considering our current workload, DEI has the manpower and equipment to execute the volume of work anticipated in this solicitation. We are confident that we have the right people and required resources, when and where they are needed, to meet the needs of this project. DEI has established management procedures for coordinating and executing work among in-house staff and subcontractors to ensure the work is performed on schedule and without budgeting overruns.

### **Closing Statement:**

**We are extremely interested in this solicitation.**

**Design Engineering, Inc. has extensive experience in the design of drainage improvement projects in Jefferson Parish and throughout the New Orleans Metropolitan Area.**

## TEC Professional Services Questionnaire

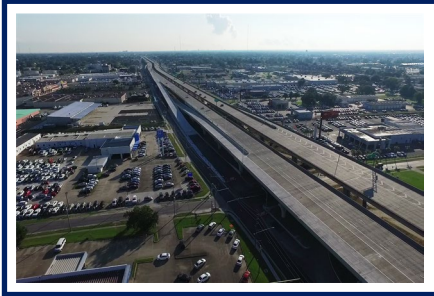
**Design Engineering, Inc. has the capacity to easily absorb this project assignment.**

**Please give us your serious consideration.**

### **AWARDS**

- Award of **Excellence** in Historic Preservation from The La Landmarks Society for The Mary Beth Hotel, 310 S. Rampart St.(2024)
- **Overall Best Concrete** Project in Louisiana from ACI Louisiana Chapter for Causeway Blvd. Overpass at Airline Dr. (2023)
- Award of **Excellence** from ACI Louisiana Chapter for Causeway Blvd. Overpass at Airline Dr. (2023)
- Award of **Excellence** in Historic Preservation from The La Landmarks Society for 315 Girod/Ironworks Building Project (2023)
- Award of **Excellence** from the ACI, Louisiana Chapter for Seawall Erosion Control Paving (2022)
- Award for the **Best Place to Work** from the City Business (2022)
- Award of **Merit** from the ACI, Louisiana Chapter for St. Andrew Street Wharf Erosion Mitigation (2022)
- Award for the **Top Engineering Firm** from the City Business (2021)
- Award for the **Top Engineering Firm** from the City Business (2020)
- Award of **Excellence** in Construction and Real Estate from City Business (2019)
- Award of **Excellence** in Historic Preservation from The La Landmarks Society for 419 Carondelet Project (2019)
- Award of **Excellence** in Historic Preservation from The La Landmarks Society for 822 Howard Project (2017)
- **Overall Best Concrete** Project in Louisiana from ACI Louisiana Chapter for MacArthur Interchange Completion Project –Phase 1B (2016)
- Award of **Excellence** from ACI Louisiana Chapter for MacArthur Interchange Completion Project – Phase 1B (2016)
- Award of **Excellence** from the ACI, Louisiana Chapter for the **OLD** Seawall Erosion Control Paving Project – Reach 1B (2014)
- **Most Improvement to the Public Award** from the ACI, Louisiana Chapter for the **OLD** Seawall Erosion Control Paving Project – Reach 1B (2014)
- **Overall Best Project** in Louisiana from the ACI, Louisiana Chapter for Planter's Pump Station Frontal Protection (2012)
- Award for **Concrete Sustainability** from the ACI, Louisiana Chapter for Planter's Pump Station Frontal Protection (2012)
- Award of **Excellence** from the ACI, Louisiana Chapter for Planter's Pump Station Frontal Protection (2012)
- **USACE – New Orleans District Certificate of Appreciation**, for Exceptional Achievement in support of the Mississippi Valley Division's New Orleans District and the Execution of the Hurricane and Storm Damage Risk Reduction System (2012)
- **Exceptional Project Rate**, for LPV 106, US Army Corps of Engineers Hurricane Protection Office (2012)
- Award of **Merit** from ACI for the **OLD** Plaza Area Paving at Stepped Seawall on Lakeshore (2007)
- Award of **Excellence** from ACI for the **OLD** Lakeshore Drive – London Avenue Canal Bridge Replacement (2004)
- Award of **Merit** from ACI for the **OLD** Retaining Wall Restoration at the New Orleans Lakefront Airport (2002)
- **Creative Design Utilizing Precast and Prestressed Concrete** from PCI for the **OLD** East Approach to Stars and Stripes Boulevard (1999)
- Concrete Project Award from G.S.P.C.A. for **Best Project** for the **OLD** Stars and Stripes Boulevard East and West Approach (1997-98)
- **Best Project of the Year** in Louisiana award from ACI, Louisiana Chapter for the **OLD** East Approach to Stars and Stripes Boulevard (1997)
- Award of **Excellence** from the ACI, Louisiana Chapter for the **OLD** East Approach to Stars and Stripes

## TEC Professional Services Questionnaire



**BEST OVERALL CONCRETE PROJECT & AWARD OF EXCELLENCE  
MACARTHUR INTERCHANGE COMPLETION PROJECT –  
PHASE 1B**



**OVERALL BEST PROJECT, AWARD OF CONCRETE  
SUSTAINABILITY & AWARD OF EXCELLENCE  
PLANTER'S PUMP STATION FRONTAL PROTECTION**



**AWARD OF EXCELLENCE & AWARD FOR BEST PROJECT  
EAST AND WEST APPROACH TO STARS AND STRIPES  
BLVD.**

### REFERENCES

(1) Anthony Evett  
Chief of Infrastructure  
Port of New Orleans  
New Orleans, LA  
(504) 528-3309

(2) Nelson Capote  
West Bank Area Engineer  
LaDOTD – District 02  
Jefferson, LA  
(504) 736-6400

(3) Carlton Dufrechou  
General Manager  
GNOEC  
Metairie, LA  
(504) 835-3118

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

**Signature:**  **Print Name:** Jim Martin, Ph.D., P.E.

**Title:** President **Date:** June 21, 2024

## TEC Professional Services Questionnaire

**A. Project Name and Advertisement Resolution Number:**

SOQ 24-015, Resolution No. 144202  
Routine Engineering Services for Drainage Projects

**B. Firm Name & Address:**

**Eustis Engineering L.L.C.**  
3011 28<sup>th</sup> 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](mailto: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](mailto: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> <b>Other</b>
<u>      </u> Professional Land Surveyors		<u>92</u> <b>TOTAL</b>

**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 L.L.C. 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 Jefferson Parish. 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 42<sup>nd</sup> 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:

- **Jefferson Parish – Department of Public Works**, Proposed Pump Station, West Esplanade at the 17<sup>th</sup> Street Canal, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24427

**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** – Veterans Boulevard, Pump Stations, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 23396.00, .01, & 24426
- **Southeast Louisiana Flood Protection Authority – East**, East Jefferson Levee District, Gabrielle Subdivision Runoff Control Piping, Near the Duncan Canal Pump Station, Kenner, Louisiana, Eustis Engineering Project Nos. 22537, 23474, & 24245
- **Jefferson Parish** – Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana, Eustis Engineering Project No. 24281
- **Jefferson Parish** – Bonnabel Canal, Pomona Street to Nero Street, Metairie, Louisiana, Eustis Engineering Project No. 23387

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)
<b>Project Assignment:</b>
Senior Project Manager / Limited Liability Corporation Member
<b>Name of Firm with which Associated:</b>
<b>Eustis Engineering L.L.C.</b>
<b>Years' Experience with This Firm:</b>
20
<b>Education: Degree(s)/Year/Specialization:</b>
Master of Business Administration / 2011 / Business Administration Master of Science / 2003 / Civil Engineering (Geotechnical) Bachelor of Science / 1998 / Civil Engineering
<b>Active Registration: Year First Registered/Discipline:</b>
Louisiana: 2004 / Civil Engineering Mississippi: 2012 / Engineering Texas: 2010 / Civil Engineering
<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>
<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. 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, L.L.C. 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"> <li>• <b>Jefferson Parish</b> – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819</li> <li>• <b>Jefferson Parish</b> – Proposed Pump Station, Blanchard Lane, Grand Isle, Louisiana, Eustis Engineering Project No. 24160</li> <li>• <b>Jefferson Parish</b> – Hoey's Canal Drainage Improvements (Phases II and III), Deckbar Avenue to Labarre Road and Labarre Road to Causeway Boulevard, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 21458 &amp; 22532.00, .01</li> </ul>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Benjamin M. Cody, P.E. / Principal Engineer
<b>Project Assignment:</b>
Project Manager
<b>Name of Firm with which Associated:</b>
<b>Eustis Engineering L.L.C.</b>
<b>Years' Experience with This Firm:</b>
21
<b>Education: Degree(s)/Year/Specialization:</b>
Master of Science / 1999 / Civil Engineering Bachelor of Science / 1996 / Civil Engineering
<b>Active Registration: Year First Registered/Discipline:</b>
Louisiana: 2002 / Civil Engineering Mississippi: 2007 / Engineering Texas: 2014 / Civil Engineering Florida: 2001 / Engineering Alabama: 2003 / Engineering Arkansas: 2014 / Engineering
<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>
<p>From 1993 to 1994, Mr. 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 &amp; 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 the 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 general infrastructure, roads and bridges, port facilities, government buildings and facilities, schools, utilities, 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"><li>• <b>Jefferson Parish – Department of Public Works</b>, Proposed Pump Station, West Esplanade at the 17<sup>th</sup> Street Canal, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24427</li><li>• <b>Jefferson Parish – Veterans Boulevard</b>, Pump Stations, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 23396.00, .01, &amp; 24426</li></ul>



## KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

### Name & Title:

Benjamin M. Cody, P.E. / Principal Engineer

- **Jefferson Parish** – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819
- **Southeast Louisiana Flood Protection Authority – East**, East Jefferson Levee District, Gabrielle Subdivision Runoff Control Piping, Near the Duncan Canal Pump Station, Kenner, Louisiana, Eustis Engineering Project Nos. 22537, 23474, & 24245
- **Jefferson Parish** – Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana, Eustis Engineering Project No. 24281
- **Jefferson Parish** – Hoey's Canal Drainage Improvements (Phases II and III), Deckbar Avenue to Labarre Road and Labarre Road to Causeway Boulevard, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 21458 & 22532.00, .01
- **Jefferson Parish** – L & A Road Improvements, Dakin Street to Earhart Expressway, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24196

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)
<b>Project Assignment:</b>
Project Manager
<b>Name of Firm with which Associated:</b>
<b>Eustis Engineering L.L.C.</b>
<b>Years' Experience with This Firm:</b>
11
<b>Education: Degree(s)/Year/Specialization:</b>
Master of Science / 2010 / Civil Engineering Bachelor of Science / 2007 / Civil Engineering
<b>Active Registration: Year First Registered/Discipline:</b>
Louisiana: 2013 / Civil Engineering
<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>
<p>For his first 5 years after graduation, Mr. 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 900 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 foundation systems; and</p>

## KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

### Name & Title:

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

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:

- **Gretna City Park** – Proposed Water Capacity Improvements, 910 Gretna Boulevard, Gretna, Louisiana, Eustis Engineering Project No. 24290
- **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 Pump Station, Blanchard Lane, Grand Isle, Louisiana, Eustis Engineering Project No. 24160
- **Jefferson Parish** – Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana, Eustis Engineering Project No. 24281
- **Jefferson Parish** – Bonnabel Canal, Pomona Street to Nero Street, Metairie, Louisiana, Eustis Engineering Project No. 23387

## 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:**

29

**Education: Degree(s)/Year/Specialization:**

Associate of Applied Sciences / 1998 / Safety

**Active Registration: Year First Registered/Discipline:**

LA Driller's License /2013

**Other Experience and Qualifications Relevant to the Proposed Project:****Accreditations / Affiliations / Certifications**

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

International Code Council: Soils Special Inspector

National Institute for Certification in Engineering Technologies:

- 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

10-Hour OSHA Training

Transportation Workers Identification Card (TWIC)

Registered Well Driller for the States of Louisiana and Mississippi

**Professional Experience**

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 limits 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.



## 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
- Consolidated drained triaxial shear tests
- Consolidation tests
- Direct simple shear
- Hydrometer
- Moisture content of soil and rock
- Particle size analysis of soils and aggregates
- Pocket penetrometer
- Settlement column testing of dredged materials
- Soil constants
- Standard and modified compaction
- Torvane shear tests
- Unconsolidated undrained triaxial shear tests
- Unit weight
- 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
- CBR of laboratory compacted soils
- Consolidated undrained triaxial shear tests
- Direct shear
- Flexible wall permeability test
- Miniature vane shear
- Organic content
- Percent finer than U.S. Standard No. 200 sieve
- Relative density tests
- Sieve analyses
- Specific gravity of soils
- Swell pressure tests
- Unconfined compressive strength of soil
- Unified Soil Classification System
- Visual classification of soils

In early 1998, Mr. Rome joined the Drilling Department as a soil technician, 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 U.S. Army Corps of Engineers' (USACE's) fixed piston sampling. He is quite familiar with splitspoon, pitcher, Osterberg, Denison, and hollow stem auger sampling operations. He also performs down hole vane shear testing. 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, fleet management, as well as other duties.


<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Lawrence W. Rome, C.E.T. / Operations Manager and Vice President (Operations)
Mr. Rome has direct involvement with the following projects related to this submittal: <ul style="list-style-type: none"><li>• <b>Jefferson Parish</b> – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819</li><li>• <b>Jefferson Parish</b> – Proposed Pump Station, Blanchard Lane, Grand Isle, Louisiana, Eustis Engineering Project No. 24160</li></ul>

PROJECT NO. 01		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p><b>Jefferson Parish</b>  <b>Department of Public Works</b>  <b>Proposed Pump Station</b>  <b>West Esplanade at the 17th Street Canal</b>  <b>Jefferson Parish, Louisiana</b>  <b>Eustis Engineering Project No. 24427</b></p> <p><b>Contact Information:</b>  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 17<sup>th</sup> 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 17<sup>th</sup> 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><b>Contact Information:</b> 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 17<sup>th</sup> Street Canal. Each of these pump stations will discharge into the 17<sup>th</sup> 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 17<sup>th</sup> 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><b>Gretna City Park</b>  <b>Proposed Water Capacity Improvements</b>  <b>910 Gretna Boulevard</b>  <b>Gretna, Louisiana</b>  <b>Eustis Engineering Project No. 24290</b></p> <p><b>Contact Information:</b>  Gretna City Park Through  Waggoner &amp; Ball Architects, APC  2200 Prytania Street  New Orleans, Louisiana 70130  Andy Sternad @ 504-524-5308</p>	<p>Open-air pavilion and pedestrian bridge structures were anticipated as part of the Gretna City Park upgrades. The pavilion structure would consist of an approximate 25' x 30' timber frame structure.</p> <p>In the field, Eustis Engineering's drill crew completed nine undisturbed soil borings, varying in depth from 10 to 75 feet below the existing ground surface. Additionally, our personnel performed two infiltration tests on site using the Compact Constant Head Permeameter (Amoozemeter®) procedure. Following the field investigation, our Metairie laboratory conducted natural water content, unconfined compression shear, and one-point unconsolidated undrained triaxial compression shear tests to inform the engineering design.</p> <p>Engineering analyses and recommendations included the following:</p> <ul style="list-style-type: none"> <li>• slope stability analyses;</li> <li>• site preparation recommendations including drainage (both during construction and permanent) and subgrade preparation.</li> <li>• fill selection as well as its recommended compaction and its estimated settlement;</li> <li>• estimates of load capacity for treated ASTM D25 quality timber piles, as well as settlement estimates;</li> <li>• pile installation recommendations;</li> <li>• pavement design; and</li> <li>• material recommendations including components of the pavement itself and the use of geotextiles.</li> </ul> 	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
04/2020 (A)	Unknown	\$13,250

PROJECT NO. 04		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p><b>Jefferson Parish</b>  <b>Jung and Falcone Lift Station Upgrades (K-11-3)</b>  <b>New Sanitary Sewer Lift Station</b>  <b>Marrero, Louisiana</b>  <b>Eustis Engineering Project No. 23819</b></p> <p><b>Contact Information:</b>  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"> <li>• recommendations for site preparation encompassing temporary and permanent drainage, dewatering and pressure relief of excavations, and ways to limit lateral movement;</li> <li>• methods for excavation, base preparation, and bedding associated with the sanitary gravity sewer line, wet well, and valve box;</li> <li>• estimates of lateral earthen pressures;</li> <li>• recommendations for material placement and compaction of backfill for the force main and sanitary sewer line;</li> <li>• allowable soil bearing value recommendations for the wet well and valve box;</li> <li>• allowable pile load capacities, in compression and tension, for treated ASTM D25 quality timber piles; and</li> <li>• settlement estimates for both ground-supported and pile-supported project features.</li> </ul>	
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><b>Southeast Louisiana Flood Protection Authority - East East Jefferson Levee District Gabrielle Subdivision Runoff Control Piping Near the Duncan Canal Pump Station Kenner, Louisiana Eustis Engineering Project Nos. 22537, 23474, and 24245</b></p> <p><b>Contact Information:</b> Southeast Louisiana Flood Protection Authority – East 6001 Stars and Stripes Boulevard Suite 225 New Orleans, Louisiana 70126 Chris Humphreys @ 504-262-8922</p>	<p>This project began with proposed pipeline rerouting at Pump Station No. 4, near Duncan Canal Pump Station, in Kenner, Louisiana. Eustis Engineering used existing geotechnical data obtained from previous projects at the site to perform global stability analyses to evaluate the existing hurricane protection levee and floodwall during and after construction of the proposed pipeline. Slope stability analyses for the proposed trench/excavation for the installation of the pipe followed the criteria provided in the U.S. Army Corps of Engineers' (USACE) Hurricane and Storm Damage Risk Reduction System Design Guidelines and were performed using the Spencer's Method of Slices coded within SLOPE/W. The slope stability analyses were performed for the T-wall and proposed protected side excavation for pipeline installation. We also computed Lane's Weighted Creep Ratio to evaluate piping potential into the excavation as the result of seepage during a high-water event.</p> <p>Using data obtained from these calculations, we provided construction recommendations for the contractor's use on the project.</p> <p>Fleming Construction Company, L.L.C., was contracted to install a 40-in. PVC drainage pipe in the proposed excavation. They provided construction drawings delineating the configuration of a Temporary Retaining Structure (TRS). In order to ensure the contractor's TRS design met the requirements of the construction permit, including review by the USACE, Eustis Engineering was retained to evaluate these drawings and provide comments. Subsequently, we provided clarification, revised calculations to accommodate plan changes, and responded to further queries and comments as needed.</p> <p>When this review process was completed and construction commenced, Eustis Engineering provided additional geotechnical services on this project, sampling earthwork and subjecting the samples to laboratory testing including compaction, Atterberg liquid and plastic limits testing, and the percent passing the No. 200 sieve. We also evaluated the results of monitoring operations performed by the contractor to confirm the TRS was behaving as predicted and within permit requirements.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
05/2020 (A)	Unknown	\$32,200



PROJECT NO. 06		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p><b>Jefferson Parish Proposed Pump Station Blanchard Lane Grand Isle, Louisiana Eustis Engineering Project No. 24160</b></p> <p><b>Contact Information:</b> Jefferson Parish Through GIS Engineering, L.L.C. 197 Elysian Drive Houma, Louisiana 70363 Kyle Galloway @ 985-219-1000</p>	<p>Plans called for the pump station to be supported on timber or concrete piles. Three reinforced concrete inlet pipes were planned and two 24-in. diameter discharge pipes would be connected to the pump station. Each of the discharge pipes would be connected to a vertical pump with an electric motor housed on an elevated platform above the pump station. The pump station would have approximate plan dimensions of 14' x 16.33'. A design alternative, consisting of a grade-supported pump station (without pile support), was also evaluated as part of our investigation.</p> <p>In the field, one undisturbed boring was drilled for the project extending to a depth of 150 feet below the existing ground surface. In the laboratory, soil mechanics laboratory tests included visual classification, natural water content, unit weight, unconfined compression shear, and unconsolidated undrained triaxial compression shear tests.</p> <p>Engineering analyses and recommendations included the following:</p> <ul style="list-style-type: none"> <li>• recommendations for groundwater management;</li> <li>• site preparation recommendations including excavation preparation and development of a working platform/bedding as well as a sealant slab;</li> <li>• recommended construction materials including geotextile fabric as well as structural fills and their compaction;</li> <li>• minimum requirements for temporary retaining structures;</li> <li>• dewatering and pressure relief associated with a working platform;</li> <li>• allowable soil bearing values for the pump station, net applied soil pressure, and settlement of the mat/slab-supported pump station;</li> <li>• consideration of hydrostatic uplift pressures;</li> <li>• lateral earthen pressures;</li> <li>• estimated allowable load capacities for various sizes of treated ASTM D25 quality timber piles and square, precast concrete piles;</li> <li>• estimated pile settlement due to sustained structural loads; and</li> <li>• pile installation recommendations.</li> </ul>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
08/2019 (A)	Unknown	\$14,465

PROJECT NO. 07		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p><b>Jefferson Parish Proposed Drainage Improvements Geisenheimer Canal Between Loumor Ditch and Hoey's Cut Metairie, Louisiana Eustis Engineering Project No. 24281</b></p> <p><b>Contact Information:</b> Jefferson Parish Through Design Engineering, Inc. Suite 205 3330 West Esplanade Avenue Metairie, Louisiana 70002 John Holtgreve, P.E. @ 504-836-2155</p>	<p>Drainage improvements were planned for a portion of Geisenheimer Drainage Canal between Loumor Ditch and Hoey's Cut in Metairie, Louisiana. A new box culvert would be installed north of and parallel to the existing Geisenheimer Drainage Canal over a distance of approximately 2,800 linear feet. The purpose of this project was to increase flow capacity. Tie-ins in the form of junction boxes would be required at three locations including the new and existing Loumor Ditch, Woodvine Ditch, and at Hoey's Cut. The existing covered canal generally consisted of an 8' x 15' box culvert supported by timber piles. A section of the Hoey's Cut covered canal indicated a 9.5' x 25' structure comprising concrete sheetpiles as the sidewalls. The new structure was planned to be an 8' x 12' box culvert supported at grade.</p> <p>Eustis Engineering had previously performed geotechnical explorations for prior project phases. To supplement these historic data, Eustis Engineering performed four cone penetration tests (CPTs) to a depth of 60 feet each below the existing ground surface. The CPTs were made with a track-mounted cone penetrometer rig. This exploration scope was selected to expedite the project schedule and keep field costs contained.</p> <p>Geotechnical engineering recommendations for the project included site preparation, managing drainage during and after construction, identifying demolition of existing features interfering with new construction, and the need for a temporary retaining structure (TRS) for excavations.</p> <p>Eustis Engineering analyzed at least one concept of a TRS considering application of factors of safety to the sheetpile penetration or to the soil design parameters. Other considerations for the TRS included recommendations for construction sequence; excavation; dewatering; lateral movement and soil subsidence; preparation of the excavation base; the bridge lift and bedding; sealant slab; and material selection and compaction for structural, non-structural, and embankment fill.</p> <p>Our personnel also analyzed earth and water pressures associated with the box culvert as well as the use of a grade-supported culvert base slab. Analyses associated with the slab included allowable soil bearing values, net applied pressure intensity, and settlement estimates. Differential settlement was considered in association with pavements, the existing pile-supported box culvert, and underground utilities.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
03/2020 (A)	Unknown	\$12,100

PROJECT NO. 08	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p><b>Jefferson Parish</b>  <b>Hoey's Canal Drainage Improvements</b>  <b>(Phases II and III)</b>  <b>Deckbar Avenue to Labarre Road and</b>  <b>Labarre Road to Causeway Boulevard</b>  <b>Jefferson Parish, Louisiana</b>  <b>Eustis Engineering Project Nos.</b>  <b>21458, 22532, and 22532.01</b></p> <p><b>Contact Information:</b>  Jefferson Parish Through  Linfield, Hunter &amp; Junius, Inc.  3608 18th Street  Metairie, Louisiana 70002  Robert Nockton, P.E. @ 504-833-5300</p>	<p>Eustis Engineering has performed multiple geotechnical explorations dating back to 1966 along Hoey's Canal for various modifications and improvements. Phases II and III of the proposed drainage improvements along Hoey's Canal included the deepening and lining of the canal using sheetpile walls and concrete slope paving for the upper slopes of the canal. Phase II extended from Deckbar Avenue (LA Highway 3139) to the railroad crossing near Labarre Road in Jefferson Parish, Louisiana. This portion of the drainage improvements was approximately 1,715 feet long and was a continuation of an earlier phase of the project that extended from Deckbar Avenue to Betz Avenue (approximately 805 feet long) tying into an existing sheetpile-lined canal. Phase III consisted of improvements to approximately 1,625 feet of Hoey's Canal from Causeway Boulevard to Labarre Road. Eustis Engineering was retained for Phase III because of our ability to deliver high quality geotechnical recommendations in a timely fashion to our clients and to Jefferson Parish.</p> <p>For Phase II, Eustis Engineering drilled four undisturbed soil test borings using a truck-mounted, rotary-type drill rig. We drilled one soil boring to a depth of 130 feet and three borings to depths of 60 feet below the existing ground surface. For the Phase III exploration, we utilized data from one of the soil borings we obtained in Phase II in addition to drilling three borings to depths of 60 feet with a low ground pressure track-mounted drill rig. We coordinated with the New Orleans Public Belt Railroad (NOPBR) and Jefferson Parish to ensure our field exploration was performed safely and met the NOPBR and Parish requirements. The Phase III borings were drilled on the southern side of the canal because borings were not feasible on the northern side due to overhead electrical lines. Eustis Engineering performed soil mechanics laboratory tests on samples obtained from the borings during Phases II and III to evaluate the physical properties of the subsoils.</p> <p>Based on existing data, soil borings, and laboratory test results, Eustis Engineering provided recommendations regarding site preparation, sheetpile analyses, global stability analyses, estimates of allowable pile load capacities for alternative flume support, estimates of allowable pile load capacities for the railroad bridge which would replace an existing culvert, and general construction recommendations. We also evaluated dewatering/pressure relief and heave which were major design challenges due to a shallow subsurface sand deposit located near the bottom of the deepened canal.</p> <p>For Phase II, we provided supplemental engineering analyses which included addressing requests for information posed by the construction contractor and evaluating the pile load capacity results</p>

PROJECT NO. 08		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	<p>from a static load test program. Our Phase III engineering scope addressed geotechnical related issues during construction with the construction contractor.</p> <p>We also performed additional engineering analyses for the project after our client discovered a new NOPBR track closer to Hoey's Canal. This new construction altered the cross-sections we evaluated in our previous study, requiring an evaluation of the impact on the proposed walls within Hoey's Canal.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
03/2017 (A)	Unknown	\$37,800

PROJECT NO. 09		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p><b>Jefferson Parish Bonnabel Canal Pamona Street to Nero Street Metairie, Louisiana Eustis Engineering Project No. 23387</b></p> <p><b>Contact Information:</b> Jefferson Parish Through BCG Engineering &amp; Consulting, Inc. 3012 26<sup>th</sup> Street Metairie, Louisiana 70002 Ann Springston, P.E. @ 504-454-3866</p>	<p>BCG Engineering &amp; Consulting, Inc. (BCG) requested Eustis Engineering's consultation in finalizing the plans and providing support during construction of the proposed Bonnabel Canal east bank stabilization features. The construction planned for an approximate 1,600-ft stretch of the project that would extend from Pomona Street to Nero Street in Metairie, Louisiana. The furnished plans showed a 35-ft AZ26 sheetpile with a top at el 8 and a tip at el -27.</p> <p>Prior to these final design/construction phase services, Eustis Engineering had performed several geotechnical explorations for the project that were used as the basis of our updated design services. The most recent study was published in our report entitled "Geotechnical Investigation, Jefferson Parish, Bonnabel Canal, South of Veterans Boulevard to West Esplanade Avenue, Metairie, Louisiana, Eustis Engineering Project No. 20438," dated 20 November 2009.</p> <p>Using the available data, Eustis Engineering performed local stability analyses of the new sheetpile wall configuration using COWI/SHT to confirm that the proposed sheetpile tip embedment was sufficient.</p> <p>Additionally, we evaluated deep-seated global stability for the cantilever sheetpile wall using the Spencer's Method of Slices for non-circular and circular failures (with optimization search routines) with the software SLOPE/W, Version 8.16, GEOSLOPE International Ltd. These analyses also confirmed the proposed configuration was stable. Thus, the plans being developed could be finalized to provide for improved drainage within the tight construction corridor.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
11/2017 (A)	Unknown	\$3,700



PROJECT NO. 10		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p><b>Jefferson Parish</b>  <b>L &amp; A Road Improvements</b>  <b>Dakin Street to Earhart Expressway</b>  <b>Jefferson Parish, Louisiana</b>  <b>Eustis Engineering Project No. 24196</b></p> <p><b>Contact Information:</b>  Jefferson Parish Through  Linfield, Hunter &amp; Junius, Inc.  3608 18<sup>th</sup> Street  Metairie, Louisiana 70002  Anthony Goodgion @ 504-833-5300</p>	<p>Jefferson Parish proposed drainage improvements near the intersection of L &amp; A Road and Blue Jay Way near a commercial section of Jefferson Parish.</p> <p>The Department of Public Works proposed a new box culvert be constructed within the existing 70-ft wide 11-ft deep Hoey's Canal. The new culvert, measuring 21 feet wide, with a 23-ft wide base, would span across approximately 340 linear feet along the southern stretch of L &amp; A Road.</p> <p>Based on furnished data, we understood the culvert floor and top surface elevations would require 2 to 3 feet of fill above the culvert roof. In addition, the annular space between the existing canal bank and the culvert side walls would be backfilled to create a smooth transition between the existing canal bank crowns and the grade above the culvert.</p> <p>Two paved access roads would cross the culvert perpendicularly. Lastly, the southern end of the culvert would transition to the existing canal bank slopes with the assistance of wingwalls. Eustis Engineering was requested to analyze the culvert supported on shallow and deep foundations.</p> <p>We directed our drill crew to conduct one soil boring to a depth of 75 feet in the approximate culvert footprint. We then selected soil samples to perform soil mechanics laboratory tests to facilitate development of design parameters.</p> <p>We transmitted the results of the exploration and analyses in a formal report signed and sealed by one of our professional engineers. These analyses and recommendations included:</p> <ul style="list-style-type: none"> <li>• site preparation and drainage,</li> <li>• excavations and dewatering/pressure relief (including temporary retaining structures),</li> <li>• fill material and compaction for pipe bedding,</li> <li>• allowable soil bearing values,</li> <li>• local and global stability analyses,</li> <li>• allowable pile load capacities for box culvert construction,</li> <li>• settlement due to structural loads, and</li> <li>• general construction procedures.</li> </ul>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
09/2019 (A)	Unknown	\$6,150

## 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.

[illegible]

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  
Masonry  
Soil

Soil  
Concrete  
Spray Fire-Resistive Material

Asphalt  
Concrete  
Soil  
Spray Fire-Resistive Material

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

Print Name: Gwendolyn P. Sanders, P.E.

**Title:** President

**Date:** 12 June 2024