



ROCK DIKE EROSION PROTECTION



WETLANDS SURVEYING

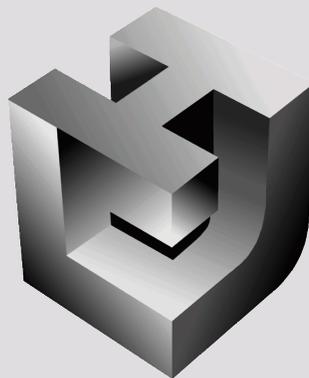


# STATEMENT OF QUALIFICATIONS

SUPPLEMENTAL COASTAL ENGINEERING CONSULTING SERVICES ON AN AS-NEEDED BASIS

SOQ: 22-036  
RESOLUTION NUMBER: 139868

**AUGUST 12, 2022**



IN ASSOCIATION WITH:

ELOS ENVIRONMENTAL, LLC  
EUSTIS ENGINEERING, LLC

LINFIELD, HUNTER & JUNIUS, INC.

22M-005



**LINFIELD, HUNTER & JUNIUS, INC.**

PROFESSIONAL ENGINEERS, ARCHITECTS,  
LANDSCAPE ARCHITECTS AND SURVEYORS

3608 18<sup>th</sup> Street / Suite 200  
Metairie, Louisiana 70002  
(504) 833-5300 / (504) 833-5350 fax

Ralph W. Junius, Jr., P.E.  
Nathan J. Junius, P.E., P.L.S.  
Anthony F. Goodgion, P.E.  
Benjamin N. Chadwick, AIA  
Charles T. Knight, P.E.  
Robert E. Nockton, P.E.  
Mark K. Annino

Casey M. Genovese, P.E.  
Daniel A. Flores, P.E.  
John M. Jackson, P.E.  
Timothy J. Roth, P.E.  
Luis F. Sosa, P.E.  
Richard A. VanWootten, P.E.

August 12, 2022

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

**RE: Statement of Qualifications  
Supplemental Coastal Engineering Consulting Services  
On An As-Needed Basis  
SOQ 22-036  
Resolution No. 139868  
Our File #: 22M-005**

To Whom It May Concern:

Linfield, Hunter & Junius, Inc. (LH&J) is pleased to submit its Statement of Qualifications to provide Supplemental Coastal Engineering Consulting Services on an As-Needed Basis.

Our Team is composed of Linfield, Hunter & Junius, Inc. (LH&J) (Coastal, Civil, Structural and Hydraulic Engineering); ELOS Environmental, LLC (Permitting and Environmental Services); Eustis Engineering, LLC (Geotechnical Engineering).

Our Team is well qualified to provide the services required for this project. Our Team is made up of over 45 engineering and environmental professionals and with a supporting staff of well over 80 additional personnel whom are available to meet all project requirements. Our Team meets or exceeds the qualifications and experience required for this project.

Contact Information:

Nathan J. Junius, P.E., P.L.S, President  
Linfield, Hunter & Junius, Inc., 3608 18<sup>th</sup> Street, Suite 200, Metairie, LA 70002  
[njunius@LHJunius.com](mailto:njunius@LHJunius.com) - 504-833-5300 - 504-833-5350 fax

We appreciate your business and look forward to continuing our relationship with Jefferson Parish.

Very truly yours,

LINFIELD, HUNTER & JUNIUS, INC.

Nathan J. Junius, P.E., P.L.S.  
President

NJJ/ckc

Enclosures

**TEC Professional Services Questionnaire**

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

Supplemental Coastal Engineering Consulting Services  
on an As-Needed Basis for Miscellaneous Projects throughout Jefferson Parish

Resolution No. 139868 – SOQ 22-036

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

LINFIELD, HUNTER & JUNIUS, INC.  
3608 18<sup>th</sup> Street, Suite 200  
Metairie, LA 70002



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

Nathan J. Junius, P.E., P.L.S., President  
Linfield, Hunter & Junius, Inc.  
3608 18<sup>th</sup> Street, Suite 200  
Metairie, LA 70002  
504-833-5300 504-833-5350 fax  
njunius@LHJunius.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.**

Nathan J. Junius, P.E., P.L.S., President  
Linfield, Hunter & Junius, Inc.  
3608 18<sup>th</sup> Street, Suite 200  
Metairie, LA 70002  
504-833-5300 504-833-5350 fax  
njunius@LHJunius.com

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

<u>5</u> Administrative	— Estimators	— Specification Writers
<u>1</u> Architects (Licensed)	— Geologists	<u>4</u> Structural Engineers
— Chemical Engineers	— Geotechnical Engineers	— Graduate Engineers
<u>6</u> Civil Engineers (Licensed)	— Interior Designers	— Project Managers
<u>5</u> Construction Inspectors	— Landscape Architects	<u>1</u> Clerical
— Ecologists	<u>5</u> Land Surveyor	— Grant/Funding Specialist
— Electrical Engineers	— Mechanical Engineers	— Sanitary Engineers
<u>4</u> Engineer Intern	— Environmental Engineers	<u>3</u> CADD Drafters
<u>2</u> Professional Land Surveyors	<u>1</u> Architect Intern	<u>37</u> TOTAL

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

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

**TEC Professional Services Questionnaire**

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

1. N/A
- 2.

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

YES  NO  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)
1. ELOS Environmental, LLC 607 W. Morris Avenue Hammond, LA 70403	Environmental Services	Yes
2. Eustis Engineering, LLC 3011 28th Street Metairie, LA 70002	Geotechnical Engineering	Yes
3.		

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

20

Staffing Plan – A Diagram showing all key personnel that would be available for assignment. The Staffing Plan should also include the same information for sub-consultants (if applicable).

**LINFIELD, HUNTER & JUNIUS, INC.  
STAFFING PLAN**



**Supplemental Coastal  
Engineering Consulting  
Services on an As-needed  
Basis  
SOQ 22-036  
Resolution No. 139868**

Prime Consultant



**LINFIELD, HUNTER & JUNIUS, INC.**  
PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS

**Team Firms**

- ★ Linfield, Hunter & Junius, Inc. (LH&J)
- <sup>1</sup> ELOS Environmental, LLC. (ELOS)
- <sup>2</sup> Eustis Engineering, LLC (EE)

**Anthony F. Goodgion, P.E. ★**  
*Project Manager*

**Ralph W. Junius, Jr. P.E. ★**  
*Project Oversight*

**Richard A. Van Wooten, P.E. ★**  
*Design Quality Control Manager*

**Coastal Engineering  
and Hydraulic  
Engineering**

**Lead Coastal / Hydraulic  
Engineer**  
Robert E. Nockton, P.E. ★

**Coastal / Hydraulic  
Engineers**  
Luis F. Sosa, P.E. ★  
Cecily K. Criscoe, E.I. ★

**Structural  
Engineering**

**Lead Structural Engineer**  
Anthony F. Goodgion, P.E. ★

**Structural Engineers**  
Daniel A. Flores, P.E. ★  
Eric R. Wright, E.I. ★  
Colin V. Landry, E.I. ★

**Environmental and  
Permitting Services**

**Lead Environmental /  
Permitting Specialist**  
Lucas Watkins<sup>1</sup>

**Environmental Specialists**  
Brittany Berthelot<sup>1</sup>  
Flynn Daigle<sup>1</sup>  
Brian Fortson<sup>1</sup>  
Jesse McQuigg<sup>1</sup>  
Cori Gavin<sup>1</sup>

**General  
Engineering**

**Lead Civil Engineer**  
Robert E. Nockton, P.E. ★

**Civil Engineers**  
Luis F. Sosa, P.E. ★  
Mark K. Annino, BSCE ★

**Surveying  
Services**

**Lead Land Surveyor**  
Nathan J. Junius, P.E., P.L.S. ★

**Surveyors**  
William J. Muller, P.L.S. ★  
Daniel D. Bindewald ★  
Paul H. Morales, IV ★

**Construction Administration  
and Inspection**

**Lead Construction Manager**  
Charles T. Knight, P.E. ★

**Construction Inspectors**  
John L. Scruggs, Sr. ★

**Geotechnical  
Engineering**

**Lead Geotechnical Engineer**  
James J. Hance, P.E. <sup>2</sup>

**Geotechnical Engineers**  
Sean G. Walsh, P.E. <sup>2</sup>  
Gwendolyn P. Sanders, P.E. <sup>2</sup>  
James M. Williams, P. E. <sup>2</sup>  
Henry C. Worley, P.E. <sup>2</sup>

**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:**

Anthony F. Goodgion, P.E., Vice President, Civil Engineer

**Project Assignment:**

Project Manager

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

31 Years of Experience with LH&J; 39 Years of Total Experience

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

Louisiana State University – B.S. /1983 / Civil Engineering

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

1991 / Civil / LA License No. PE.0024466

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

Goodgion is a highly qualified and experienced Project Manager who has managed the successful performance of Planning, Investigation, Engineering Design and Construction Management services for numerous Task Order oriented contracts with the U. S. Army Corps of Engineers, with contract values up to \$90 million in fees. His experience with Coastal Engineering includes projects for Environmental Restoration, Dredging, Hydraulic Modeling and Flood Protection.

Goodgion has led diverse engineering teams performing under the direction of a wide range of public clients including Federal, State, Parish and Local Governments, as well numerous private commercial, institutional and industrial entities. He has successfully managed government projects for Jefferson Parish Department of Public Works, the Port of New Orleans, the City of New Orleans Department of Public Works, the LA-DOTD, the Sewerage and Water Board of New Orleans, the U.S. Army Corps of Engineers and Plaquemines Parish. As Project Manager, Goodgion has overseen the successful preparation of investigations, planning and studies, engineering reports, construction plans and specifications, and cost estimates for a wide range of coastal engineering projects.

**Additional Experience and Qualifications**

**Grand Bayou Vegetative Ridge Restoration, Plaquemines Parish, LA**

Goodgion performed as LH&J's Principal In Charge for this Coastal Restoration Project envisioned for Plaquemines Parish. He was responsible for LH&J overall performance including schedule, budget and design quality compliance, as well as technical oversight for the development of the project planning documents.

**Spanish Pass Freshwater Diversion, Venice, LA**

As Senior Structural Engineer for this Coastal Restoration Project Concept, Goodgion was responsible for the technical compliance with Structural Codes and other requirements for development of the Hydraulic Diversion Structure and Road Crossing. He analyzed multiple options for the structure to determine optimization for the most cost effective alternative. His expertise in Pile Founded Structures was utilized to determine the best method to support the special structure to minimize settlement and maintain peak efficiency for the Hydraulic Structure.

**South Shore Harbor Marina Dredging, New Orleans, LA**

Goodgion was the Project Manager for this dredging project located in Lake Pontchartrain adjacent to Lakefront Airport. LH&J provided full civil, hydrographic and topo surveying, and permitting for the project. LH&J investigated and coordinated the placement of the dredged material along the shoreline to build land elevation along the shore. Included in the project was providing a structural assessment of an existing concrete bulkhead for placement of dredge material.

**Orleans Marina Seepage Repair Projects, New Orleans, LA**

Goodgion was the Project Manager for this multi-phase project to replace a deteriorating steel sheetpile bulkhead. Project includes permitting with CPRA, USACE and DNR for construction. LH&J performed full civil, structural, surveying, hydro-surveying, cost estimating and construction administration for the project.

**Murphy Oil U.S.A. Loading and Unloading Wharves, Meraux, LA**

As Project Manager/Senior Engineer for all work performed for Murphy Oil, Goodgion is responsible for LH&J's performance in regards to the Client's Budget, Scope and Schedule. He also led inspection teams to identify and document damages and necessary repairs. He also oversees the preparation of Plans and Specifications for periodic dredging projects to maintain the required depth at the facility's ship and barge berths.

**Oakville to LaReussite Non-Federal Levees & Floodwalls, Plaquemines Parish, LA**

Goodgion performed as the Principal In Charge for this 8 mile long section of Critical Hurricane Protection in Plaquemines Parish. He was responsible for performing technical, budget and schedule oversight for all work being performed by LH&J, as well as a number of sub-consultants. He was also the company's single point of contact for all contractual dealings with the U. S. Army Corps of Engineers.

## TEC Professional Services Questionnaire

### **Inner Harbor Navigation Canal Surge Protection Barrier, New Orleans, LA**

Goodgion was the Project Manager for the 32-foot-tall north and south T-wall transitions, the north and south elevated access bridge ramps, the 150-foot-long steel dewatering bulkheads and the elevated safe house. All features were designed to comply with HSDRSDG criteria and construction cost for LH&J designed features was approximately \$66.5 million. Goodgion was the primary contact for business and technical issues, provided oversight of technical design activities, monitored costs and schedules. Many of the features designed by LH&J were unique in size and complexity such as the 32 foot tall T-walls, the Safe House and the 150 foot long dewatering bulkheads which were also designed as temporary storm surge protection.

### **Storm Proofing Drainage Pumping Station No. 5 and New 600 CFS Pump Station, New Orleans, LA**

Goodgion performed as the Principal In Charge for this \$25 million Pump Station modification and expansion project. He was responsible for performing technical, budget and schedule oversight for all work being performed by LH&J, as well as a number of sub-consultants. He was also the company's single point of contact for all contractual dealings with the U. S. Army Corps of Engineers.

### **NASA Michoud Assembly Facility (MAF) Harbor Improvements, New Orleans, LA**

Goodgion served as Project Manager for several harbor projects at MAF which included performing underwater inspections of docks and other marine structures, dock repairs, dock expansions and dredging plans for the harbor. LH&J provided full services for engineering, hydrographic surveying and permitting of these projects.

### **Professional Engineering Oversight Services for Pontchartrain Levee District, St. Charles Parish, LA**

Linfield, Hunter & Junius, Inc. is contracted with the Pontchartrain Levee District to review levee Plans and Specifications by others, review Letter of No Objection Requests and other engineering services. Goodgion served as the Project manager for the preliminary design of a levee lift for LPV 4.2a and 4.2b. He was responsible for coordination with the PLD and the CPRA for determining levee lift quantities and geometry as well as preparing cost estimates and schedules for varies levee lift options.

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Ralph W. Junius, Jr., P.E., Chairman of the Board, Civil Engineer

**Project Assignment:**

Project Oversight

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

48 Years of Experience with LH&J; 52 Years of Total Experience

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

Tulane University – B.S. / 1970 / Civil Engineering  
University of Illinois – M.S. / 1972 / Civil Engineering  
Louisiana State University – J.D. / 1974 / Law

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

1976 / Civil / LA License No. PE.0016053

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

Junius joined the firm in 1975 as a design engineer and became a Principal in 1982 with the firm establishing its current name. He has designed and managed many private and public sector projects. Structural projects have included coastal and waterfront structures, single story residences, mid-rise office buildings, bridges, numerous industrial structures, etc. Civil projects include major drainage canals, small site developments, miles of streets, water distribution systems, sewerage collection systems, sewage treatment plants, water purification plants, etc. He has served as an expert and arbitrator in disputes involving structures, paving, drainage and waterfront facilities. Junius authored "Wharf Decks - Design Load vs. Cost" published by ASCE. Junius also wrote Chapter 2.0 of Negotiating for Design Professional Services published by ACEC. He is a frequent lecturer on waterfront structures and engineering ethics.

**Additional Experience and Qualifications**

**Murphy Oil U.S.A. Loading and Unloading Wharves, Meraux, LA**

In providing Project Oversight for all work performed for Murphy Oil, Junius has high level responsibility for LH&J's entire project performance. He is responsible for ensuring that adequate resources with the proper level of experience and expertise are allocated to completing the project on time. He also provides the highest level of technical authority and reviews all final deliverable plans, specifications and cost estimates to confirm compliance with Company Policies and Standards.

**Inner Harbor Navigation Canal Surge Protection Barrier, New Orleans, LA**

Junius provided Project Oversight for this Monumental USACE Design Build project. In this capacity he was responsible for arranging and complying with all contractual arrangements with the Prime Design Build company. He also provided the highest level of technical authority and reviews all final deliverable plans, specifications and cost estimates to confirm compliance with both Company Policies and Standards, as well as all Governmental Design Standards and Requirements.

**Storm Proofing Drainage Pumping Station No. 5 and New 600 CFS Pump Station, New Orleans, LA**

Junius's responsibilities for Project Oversight on this project included performing as the highest level of technical authority and reviewing all final deliverable plans, specifications and cost estimates to confirm compliance with both Company Policies and Standards, as well as all Governmental Design Standards and Requirements.

**Task Force Guardian - Emergency, Interim & Permanent 17th Street Canal Breach Repairs, Orleans and Jefferson Parishes, LA**

In the immediate aftermath of Hurricane Katrina, the USACE relied on LH&J to assist with the daunting task of controlling the intruding floodwaters at the 17th Street Canal Floodwall Breach. Junius was the Project Principal and provided Technical Oversight for the work done by LH&J's in-house employees, as well as all sub-consultants. He was LH&J's highest level representative to the USACE. His extensive experience and expertise was instrumental in LH&J's development of the configuration of the gated structure, including an innovative concept for pre-fabricating the canal closure structures off-site to accelerate construction, improve constructability and save costs. The construction cost of the multiple phases of this project was on the order of \$150 million.

**New Orleans Small Business Engineering, a Joint Venture, L.L.C., (NOSBE), New Orleans, LA**

Junius was the Managing Partner for the NOSBE Joint Venture, which was comprised of seven small business partners and seven sub-consultants who performed the \$90 million USACE IDIQ Contract No. W912P8-07-D-0059. He was the Joint Venture's highest level representative to the USACE. He made decisions on assignments of work based upon the expertise and capacity of the individual team members to perform the required tasks. He provided Technical Oversight on all Task Orders. The Joint Venture was assigned 59 individual Task Orders between 2007 and 2012 and is currently still performing EDC services for the ongoing NOV-NF-W-04a levee and floodwall project.

**TEC Professional Services Questionnaire**

**General Design Support Services and Multidisciplinary Planning IDIQ, New Orleans District, LA**

For this \$5.0 million IDIQ Contract No. W912P8-07-D-0056 with the New Orleans District, Junius was LH&J's Project Principal and provided Technical Oversight for the work done by LH&J's in-house employees, as well as all sub-consultants. He was LH&J's highest level representative to the USACE. The contract was utilized between 2007 and 2012 for seven individual task orders that involved both new construction and existing facilities.



**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Richard A. Van Wootten, P.E., Manager of Quality Control

**Project Assignment:**

Design Quality Control Manager

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

18 Years of Experience with LH&J; 50+ Years of Total Experience

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

Rensselaer Polytechnic Institute / BS / 1957 / Civil Engineering

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

1974 / Civil / LA License No. PE.0014620

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

Mr. Van Wootten has over 50 years of experience in the process industry including petroleum refining, petrochemical and chemical plants, fertilizer and sulphur facilities, pulp and paper mills, food processing plants, oil and gas production, and storage and transportation facilities. In additions, he has extensive experience in operations, maintenance, engineering, construction, project engineering, project management, and program management. At Linfield, Hunter & Junius, Inc. Mr. Van Wootten provides quality assurance on all projects with periodic quality control checks and coordinated reviews.

**Spanish Pass Freshwater Diversion, Venice, LA**

As Quality Control Manager for this Coastal Restoration Project Concept, Van Wootten was responsible for the Quality Assurance and Quality Control functions for all work products prepared by LH&J.

**Oakville to LaReussite Non-Federal Levees & Floodwalls, Plaquemines Parish, LA**

Van Wootten's duties as Quality Control Manager included the responsibility for the Quality Assurance and Quality Control functions for all work products prepared by LH&J on this U.S. Army Corps of Engineers (USACE) contract. In this capacity he coordinated and documented the necessary Individual Technical Review (ITR) functions to ensure compliance with all USACE requirements.

**Additional Experience and Qualifications**

**Inner Harbor Navigation Canal Surge Protection Barrier, Orleans Parish, Louisiana**

Performed as manager of quality assurance and quality control and oversaw all QA/QC activities for a \$3.0 million engineering subcontract for the IHNC Hurricane Barrier project for the U.S. Army Corps of Engineers. This project consisted of 28 individual task orders and required compliance with the overall quality management plan and contract requirements.

**Storm Proofing Drainage Pumping Station No. 5 and New 600 CFS Pump Station, New Orleans, LA**

On this USACE project, Van Wootten bore responsibility for coordinating and documenting the necessary Individual Technical Review (ITR) functions for both LH&J, as well as all sub-consultants, to ensure compliance with all Corps QA/QC requirements. He also maintained primary responsibility for developing, obtaining approval, updating and ensuring compliance with the project's QA/QC Plan.

**IDIQ General Design Support Services, Multidisciplinary Services and Construction Management Services New Orleans District, New Orleans, LA**

LH&J served as the managing partner for the \$90 million NOSBE, JV IDIQ Contract No. W912P8-07-D-0059 with specific responsibility for performing all contractually required QA/QC activities for the entire JV. Van Wootten performed as manager of QA/QC and oversaw all QA/QC activities for a \$90 million, 5-year IDIQ Design Contract for the USACE. Responsibilities included preparation and updating of QA/QC plans for each of 59 individual task orders, performance of ITR at 30%, 60% and 90% stages of completion for each task order and assurance of overall compliance with all contractually required QA/QC requirements and the quality management plan for the program. Two of the task orders were for the performance of quality assurance materials testing and three task orders were for the supplying of construction management staff. In total the NOSBE JV was responsible for over \$300 million in the construction of floodwalls, floodgates, levees, pump stations and storm proofing projects.

**Task Force Guardian - Emergency, Interim & Permanent 17th Street Canal Breach Repairs, Orleans and Jefferson Parishes, LA**

In the immediate aftermath of Hurricane Katrina, the USACE relied on LH&J to assist with the daunting task of controlling the intruding floodwaters at the 17th Street Canal Floodwall Breach. Van Wootten performed as manager of QA/QC and oversaw all QA/QC activities for a contract with the USACE. This contract along with a following contract provided the design engineering services for the 17th Street Canal Program after Hurricane Katrina. The two contracts totaled 23 task orders. Responsibilities included preparation of DQCP plans, supervision of QA/QC activities and compliance with the program quality management plan and QA/QC requirements of the contracts. The construction cost of the multiple phases of this project was on the order of \$150 million.

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Robert E. Nockton, P.E., Civil Engineer

**Project Assignment:**

Lead Coastal / Hydraulic Engineer

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

27 Years of Experience with LH&J; 27 Years of Total Experience

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

Rice University / B.S. / 1995 / Civil Engineering

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

2000 / Civil / LA License No. PE.0028802

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

Nockton has been involved in the engineering of a wide variety of both coastal, hydraulic, and hydrologic projects. These projects include but are not limited to vegetative ridge restoration, fresh-water diversion, improvements to major drainage structures, storm water management systems with green infrastructure, drainage pump stations, drainage studies, urban streets projects, water and sewerage studies, waterline and sewer line replacement and upgrades, wastewater pump station design and rehabilitation, utility relocations, surveying and site design. Nockton has been Project Manager and/or Lead Civil Engineer on many successful projects in the past ten years.

**Grand Bayou Vegetative Ridge Restoration, Plaquemines Parish, LA**

Nockton performed as a Civil Engineer for this Coastal Restoration Project envisioned for Plaquemines Parish. He assisted with the preparation of the Civil Engineering Concept Drawings, Quantity Computations and Cost Estimate. He also assisted with the preparation of the Coastal Use Permit that LH&J prepared for the project.

**Spanish Pass Freshwater Diversion, Venice, LA**

As Civil Engineer for this Coastal Restoration Project Concept, Nockton assisted with preparation of the Roadway Modifications and Utility Relocations, including Drawings and Cost Estimates.

**Additional Experience and Qualifications**

**Tidewater Road Reconstruction and Drainage Infrastructure Improvements, Plaquemines Parish, LA**

Nockton was Lead Civil Engineer for this project. Tidewater Road is the primary access road serving the Venice Port facilities outside of the Plaquemines Parish Hurricane Protection System in Venice, Louisiana. Because it lies outside of the hurricane protection levee system, the roadway is subject to frequent flooding during high tidal conditions, thus severely limiting access to the critical Venice Port Facilities. LH&J was retained to raise Tidewater Road to improve access to the Venice Port facilities. Phase I improvements raised approximately 6,000 linear feet of roadway to Elevation +5.0 from the Jump to Coast Guard Road. Phase II improvements, which raised the next 10,000 linear feet of roadway to Elevation +5.0 from Coast Guard Road to the entrance of the TARGA Refinery, was recently completed. The total cost was \$27 Million. Phase II was a **CDBG Disaster Recovery Project**.

**Elevation of Lake Hermitage Road, Plaquemines Parish, LA**

Nockton was Lead Civil Engineer for this project. Lake Hermitage Road is the primary access road serving communities along three bayous that cross Lake Hermitage Road. Lake Hermitage Road lies outside the flood protection levee system, and as such is subject to flooding during high tidal conditions. Under this project, Lake Hermitage Road will be raised and paved to improve access during high tidal conditions. This \$5.5 Million project is being funded in part by the **Community Development Block Grant (CDBG) Program**.

**Storm Proofing Drainage Pumping Station No. 5 and New 600 CFS Pump Station, New Orleans, LA**

Nockton was Lead Civil Engineer for this project to enhance the resiliency and expand the pumping capacity of this existing S&WBNO Drainage Pumping Station. He was responsible for the design and specification of the two new 300 CFS 1500 HP electrically driven pumps with formed suction intake basin and their 72" discharge piping and ancillary systems. He also developed and supervised the physical modeling program and also assisted with Engineering During Construction (EDC) activities by reviewing Shop Drawings and Submittals and answering Contractor questions.

**Diamondhead Wastewater Treatment Plant Expansion Program, Diamondhead, MS**

Nockton assisted with this \$24 million project to construct a 1.25 MGD wastewater treatment plant in Diamondhead, MS. Served as LH&J's Technical Expert on all matters that arose regarding the Plant's Treatment Processes and Equipment.

**General Design Support Services and Multidisciplinary Planning IDIQ, New Orleans District, LA**

Nockton served as the civil engineer with responsibility for the design of repairs to 16 pumping stations in Plaquemines Parish that had been damaged by Hurricane Katrina. The types of repairs included building repair, repair of trash screens, driver replacements, gear replacement, fuel system rebuilding, electrical and mechanical repairs, and pump rehabilitation. The construction cost of this project was approximately \$12 million.

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Nathan J. Junius, P.E., P.L.S., PTOE, President

**Project Assignment:**

Lead Land Surveyor

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

20 Years of Experience with LH&J; 20 Years of Total Experience

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

Tulane University / 2001 / B.S. / Civil Engineering  
University of Texas / 2002 / M.S. / Civil Engineering

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

2002 / Civil / LA License No. PE.0031843 - 2005 / Land Surveying / LA License No. PLS.0004958

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

Junius attended Tulane University from 1997-2001. After Graduating in May of 2001, Junius attended the University of Texas at Austin where he graduated with a MS degree in Civil Engineering in August of 2002 with an emphasis in Water Resources. Junius also completed additional classes in the Nicholls State University Geomatics curriculum to further his land surveying knowledge.

**LAND SURVEYING**

Junius has been responsible for survey operations and daily direction of the survey crew. He was also responsible for the QA/QC of multibeam deliverables. Junius has provided virtual reference station (VRS)/ real time kinematic (RTK) surveys and 3rd Order Levels for Control as well as hydrographic multibeam surveys. Deliverables included an EM Files, ASCII Files, XYZ Files and a detailed survey report.

Junius is proficient with Leica Dual Frequency RTK Rovers, Leica DNA03 Digital Auto Level, Leica GPS Base Station, G-882 Magnetometer Leica Total Robotic Total Station, Leica Geo Office, Carlson Survey/Civil Software, Autocad 2016 and Civil 3D.

## TEC Professional Services Questionnaire

Nathan J. Junius, P.E., P.L.S., PTOE, President  
Project Assignment – Land Surveying Team Leader

Resume

### **Additional Experience and Qualifications**

Junius has conducted numerous boundary, topographic, coastal marsh resubdivision surveys, pre and post dredging surveys, levee surveys, route surveys, ALTA surveys, hydrographic surveys, utility surveys and legal descriptions throughout Louisiana, Mississippi and Texas.

One of Junius' largest surveying projects included the hydrographic and topographic surveying for the Inner Harbor Navigation Canal (IHNC) Lake Borgne Surge Barrier which included over a mile and half of hydrographic surveying through the marsh including topographic surveying for two gates.

Junius has provided first order leveling for hundreds of miles of levee construction including many floodwalls and pump stations. ROW maps, levee profiles and cross sections were also provided before and after construction to confirm as-built conditions.

Junius currently provides surveying in many areas including hydrographic surveying, GPS surveying, single beam technology, multibeam technology and scanning including numerous topographic and boundary surveys. Survey data that LH&J provides has been imported into ArcGis in the following survey data converter formats: ASCII, TDS Coordinate and TDS Raw. The survey work has been in the State Plane Coordinate System based on NAD27.

Junius is a member of the Louisiana Society of Professional Surveyors (LSPS), American Society of Civil Engineers (ASCE), American Public Works Association (APWA), and Louisiana Engineering Society (LES). He currently serves as the President of the ACEC/L New Orleans Chapter.

Recent surveying projects include:

- East Jefferson Levee District Foreshore Protection, Jefferson Parish, LA
- Jesuit Bend Mitigation Bank Hydrographic Survey – Plaquemines Parish, LA
- GIWW to Clovelly Hydrologic Restoration Hydrographic Survey – Lafourche Parish, LA
- LPV 20.2 Foreshore Protection – Jefferson Parish, LA
- Grand About Vegetative Ridge Restoration – Plaquemines Parish, LA
- Saltwater Sill LaBranche Wetlands Hydrographic Survey – St. Charles Parish, LA
- Pipeline Survey – Mississippi River Entergy Site – St. Francisville, LA
- Elevation Assistance Program – St. John the Baptist Parish, LA
- Algiers Lock Forebay Water Line Crossing Hydrographic Survey – Orleans Parish, LA
- Levee Centerline and Cross Section Survey – LPV 109.02a from south of I-10 to CSX Tracks – Orleans Parish, LA
- Mississippi River Ventures Aggregate Yard – St. Charles Parish, LA
- Various Surveys for Pontchartrain Levee District

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Charles T. Knight, P.E., Vice President, Civil Engineer

**Project Assignment:**

Lead Construction Manager

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

16 Years of Experience with LH&J; 40 Years of Total Experience

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

University of New Orleans – B.S. / 1982 / Civil Engineering  
University of New Orleans – M.S. / 1988 / Civil Engineering

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

1986 / Civil / LA License No. PE.0022165

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

Knight is a versatile civil and structural engineer with a diversified career of performing engineering designs and program and construction management for major projects in both the U.S. and overseas. Knight has been practicing Civil Engineering since graduating from the University of New Orleans in 1982 (40 years) and has designed and managed major Coastal Engineering Projects since graduating. Knight is currently the Program Manager of the nearly complete Kenner 2030 Plan City-Wide Street, Drainage and Beautification Improvement Program and the just completed Corps of Engineers Construction Management IDIQ for the New Orleans District.

**Grand Bayou Vegetative Ridge Restoration, Plaquemines Parish, LA**

Knight performed as LH&J's Project Manager for this Coastal Restoration Project envisioned for Plaquemines Parish. He was responsible for coordinating the efforts of both in-house staff as well as subcontractors. He met regularly with the prime contractor's staff and provided periodic updates on progress. He provided guidance to all staff and reviewed their work for quality and consistency.

**Spanish Pass Freshwater Diversion, Venice, LA**

As Structural Engineer for this Coastal Restoration Project Concept, Knight prepared the structural calculations, foundation design and concept drawings for the Hydraulic Structure. He also developed quantity computations and cost estimates for the concrete structure and gates.

**Additional Experience and Qualifications**

**Program Management of Kenner 2030 Capital Improvements Project, Kenner, LA**

Performed as Program Manager for this \$34 million Capital Improvement Program serving as the Liaison between the City of Kenner and the Design Consultants, Construction Contractors, Resident Inspectors and Testing Labs for each of the nine individual projects. The projects includes construction of Roadways, Bridges, Pedestrian Paths, Bike Paths, and Landscaping enhancements. Due to this State/Federal participation in several of the projects, all design development work and construction of the improvements must be performed in strict compliance with FHWA and LADOTD policies and procedures.

**Diamondhead Wastewater Treatment Plant Expansion Program, Diamondhead, MS**

Knight served as LH&J's Construction Manager for this \$24 million project to construct a 1.25 MGD wastewater treatment plant in Diamondhead, MS. He performed as the Owner's Representative in all matters between the Design Engineers, the Construction Contractor and the Owner for this FEMA funded project.

**Construction Management For Various United States Army Corps of Engineers Projects**

Mr. Knight performed as LH&J's Construction Program Manager for the \$15 Million in Construction Management services that were provided to the United States Army Corps of Engineers (USACE) between May 2014 and March 2017. Under this contract, a peak staffing of 38 full time Construction Management personnel consisting of Quality Assurance Representatives, Construction Managers, Project Engineers, Cost Estimators, Construction Schedulers, Supervisory Construction Representatives, Civil Engineering Technicians and Secretaries, were assigned to various USACE project sites throughout Southeast Louisiana from Lafayette, LA to Plaquemines Parish. The USACE evaluated the services provided by LH&J with respect to Customer Satisfaction as "Exceptional", the highest possible rating, in their most recent Performance Evaluation for the work performed under this highly demanding contract. These services provided by LH&J were instrumental in the construction of approximately \$2.0 billion in enhanced Flood Protection and other related projects throughout the Southeast Louisiana region over the last 2.5 years.

**Inner Harbor Navigation Canal Surge Protection Barrier, New Orleans, LA**

Structural Engineer and LH&J's Construction Manager for the 32-foot-tall north and south T-wall transitions, the north and south elevated access bridge ramps, the 150-foot-long steel dewatering bulkheads and the elevated safe house. All features were designed to comply with HSDRSDG criteria and construction cost for LH&J designed features was approximately \$66.5 million.

**Jebel Ali National Container Terminal, Dubai, United Arab Emirates**

Chief Resident Engineer for the Construction Management, Inspection and Supervision of a \$625 Million Container Port and Terminal Development at the Port of Jebel Ali, Dubai, United Arab Emirates. This ambitious two year project involved construction administration for two separate contracts to construct an 8,500 foot long wharf, perform earthworks to prepare 430 acres for site development and dredging of new approach channels, basins and berths. Extensive daily coordination between the two contractors was required to maintain productivity and avoid conflicts. The site employed over 1,000 labor personnel and operations continued 24 hours per day, 7 days per week to meet the Owner's ambitious schedule for completing this critical project.

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Daniel A. Flores, P.E. – Civil Engineer

**Project Assignment:**

Structural Engineer

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

14 Years of Experience with LH&J; 14 Years of Total Experience

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

University of New Orleans – B.S. / 2009 / Civil & Environmental Engineering  
University of New Orleans – M.S. / 2013 / Civil Engineering

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

20131 / Civil / LA License No. PE.0038154

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

Flores has structural engineering design experience in a wide variety of projects, including buildings, bridges, flood control structures and pump stations. He is very proficient in foundation design and in the use of structural engineering design software.

**Bulkhead & Site Improvements, Southern Yacht Club, New Orleans, LA**

Flores was the Lead Structural Engineer for the design of a bulkhead replacement and site improvements at the Southern Yacht Club in New Orleans, LA for this Coastal Engineering Project. Flores was responsible for the design of new steel sheet pile bulkhead with tie-back anchors and foundations for two new 5 ton jib cranes. Flores prepared the Permit Application documents for the Joint Coastal Use Permit/USACE Section 10 and Section 404 Permit. Flores also was responsible for the Bid Phase and Construction Administration services on the project. The features designed by LH&J had a construction cost of approximately \$1.1 million.

**East of Harvey Canal Floodwall-Contract 2; Westbank & Vicinity; New Orleans, LA-Boomtown Casino to Hero Pumping Station, Harvey, LA**

Flores assisted with the engineering and design, as well as the Engineering During Construction for this USACE Hurricane Protection project that consisted of over 8,000 LF of T-wall, large steel floodgates, drainage, roadways, sluice gates, marine fender system, dolphins, boat ramps, architecture. Project alignment and design criteria changed and redesigned after Katrina. LH&J provided design documentation report, plans and specifications and engineering during construction. Floodwall up to 23' tall designed to latest COE standards. Cost \$150 Million.

**Additional Experience and Qualifications**

**Preparation of Plans and Specifications for the Hurricane Protection System at West Bank Non-Federal Levee NOV-NF-W-04 Oakville to LaReussite in Plaquemines Parish, LA**

Flores was the Structural Engineer for this project to provide a 50-year level of hurricane protection for the west bank of Plaquemines Parish. His primary responsibilities were the engineering analyses and preparation of the calculations, plans and specifications for the T-walls and I-wall transitions into the levee sections. The north T-wall is 550 feet long with 11 concrete monoliths, including right angle and 45 degree PI monoliths with wall heights up to 8.5 feet tall. At the southern end of the project he was responsible for the structural design of the 540-foot long T-wall with special 22-foot tall monoliths that cross the LaReussite canal and are penetrated by eight siphon tubes that are each six feet in diameter.

**Inner Harbor Navigation Canal Surge Protection Barrier, Orleans Parish, LA**

Flores was the primary Structural Engineer for the design of each of the features that were designed by LH&J as a sub-consultant to Shaw E&I. These features included the north T-wall transition, the south T-wall transition, the north access ramp, the south access ramp, the dewatering bulkheads and the elevated safe house. He performed the calculations for the foundations and above ground structures in compliance with all HSDRSDG requirements. The features designed by LH&J had a construction cost of approximately \$70 million.

**Storm Proofing Orleans Parish Drainage Pump Stations, New Orleans, LA**

Assisted with the structural engineering design for the Storm Proofing of S&WB pump stations Nos. 5 and 17. Project consisted of structural enhancement of historic masonry structures to withstand 156 mph winds and flooding. Assisted with Engineering During Construction to review shop drawings and submittals and help resolve construction related problems.

**Professional Engineering Oversight Services for Pontchartrain Levee District, St. Charles Parish, LA**

Assisted with the review of the Cross Bayou Pump Station structural design that was prepared by another engineering firm. Flores also assisted with preparing the structural calculations, design drawings, specifications and cost estimate for the District's New Administration Building.

**Lincoln Beach Floodwall and Floodgate, LPV 107, New Orleans, LA**

Flores was the structural engineer for this project to replace 1500 feet of existing I-walls and 34 foot wide floodgate with new HSDRSDG compliant T-walls and a new rolling floodgate. He participated in the preparation of a design documentation report (DDR) that considered using a levee, with and without deep soil mixing, and a T-wall alternative. Due to restrictive ROW requirements the 17-foot tall T-wall with prestressed concrete piles was selected for final design and construction. He was also participated in the EDC activities. The construction cost for this project was \$9.3 million.

**TEC Professional Services Questionnaire**

**Golden Meadow and South Lafourche Crawfish Farms Pumping Station Floodwalls, Golden Meadow, LA**

Flores was the primary structural engineer for the designs and preparation of plans and specifications for Phase 1 repair at Golden Meadow and South Lafourche Crawfish Farms Pumping Station Floodwalls. This project upgraded existing protection to post-Katrina design standards including new sheet piling and kicker pile walls, concrete scour protection and related features. The construction cost for this project was \$12.8 million.



TEC Professional Services Questionnaire

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Luis F. Sosa, P.E., Civil Engineer

**Project Assignment:**

Coastal / Hydraulic Engineer

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

43 Years of Experience with LH&J; 47 Years of Total Experience

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

Louisiana State University New Orleans / B.A. / 1973 / Biological Sciences  
University of New Orleans / B.S. / 1978 / Civil Engineering  
Tulane University / M.S. / 1982 / Civil Engineering

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

1984 / Civil / LA License No. PE.0020850  
1993 / Environmental / LA License No. PE.0020850

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

Sosa is a seasoned engineer with experience primarily in the areas of **major drainage improvements**, water treatment and distribution, wastewater collection system evaluation, repair, and upgrades, wastewater treatment, and land development.

Sosa has considerable experience performing hydraulic analysis of open channels including culverts and of pressure pipe, including waterlines and sewage force mains.

**Spanish Pass Freshwater Diversion, Venice, LA**

As a Civil Engineer for this Coastal Restoration Project Concept, Sosa was responsible for the Hydraulic Computations and sizing of the culvert barrels to obtain optimum hydraulic efficiency. He also selected the sluice gates that were designed to provide throttling capability to the diversion structure.

**Murphy Oil U.S.A. Loading and Unloading Wharves, Meraux, LA**

Sosa coordinated the Hydrographic Surveying and prepared the Design Drawing and Specifications for the Annual Maintenance Dredging projects that were performed to maintain the required depths at the facility's Barge and Ship Berths.

**Additional Experience and Qualifications**

**Geisenheimer Covered Canal Reconstruction, Metairie, LA**

Sosa performed as Senior Hydraulic Engineer for this project. The Geisenheimer Covered Canal is the primary drainage canal for the portion of Jefferson Parish located between Metairie Road to the north, Airline Drive to the south, the Orleans/Jefferson Parish boundary to the east and Causeway Blvd. to the west. This area includes the Metairie Country Club and Metairie Club Gardens subdivision. The project entailed the construction of 3,800 feet of **covered concrete box culvert**.

**Hollygrove Drainage Improvements, New Orleans, LA**

Sosa performed as Senior Hydraulic Engineer for this project. LH&J designed all drainage improvements including the Forshey Street-Railroad Embankment Drainage Culvert Improvements, the Dublin Street and Eagle Street Drainage Culvert Improvements, the Oleander Street Culvert modifications, and the Pritchard Street Pumping Station.

**Improvements to the 17<sup>TH</sup> Street Canal, Jefferson Parish / New Orleans, LA**

Sosa was the Lead Hydraulic Engineer for the design of improvements to the 17<sup>th</sup> Street Canal from Pumping Station No. 6 to the Hoey's Canal. The project consisted of the widening and concrete lining of 3,700 feet of **drainage canal**, including pile-supported retaining wall, pile-supported concrete slab, utility and roadway relocation and four bridge approaches.

**Davis Plantation Park Subdivision Phase III, St. Charles Parish, LA**

Sosa was the **Lead Civil Engineer** for this 53 acre subdivision with 113 residential lots, including **roadway drainage design** and the design of a **drainage pump station**.

**Seventeenth Street Canal Drainage Basin Study, New Orleans, LA**

Sosa was the Lead Hydraulic Engineer for this project that included computer modeling of a 10,400 acre drainage basin, **two major drainage pumping stations** and **outfall canals**. The study formed the basis of the design of improvements to the 17<sup>th</sup> Street Canal from Pumping Station No. 6 to the Hoey's Canal. This study was performed as a joint effort between the Sewerage and Water Board of New Orleans and Jefferson Parish.

**Program Management of Kenner 2030 Capital Improvements Project, Kenner, LA**

Sosa attended periodic progress meetings and coordinated the performance of all Resident Inspection activities for this \$34 million Capital Improvement Program. The projects include construction of Roadways, Bridges, Pedestrian Paths, Bike Paths, and Landscaping enhancements. Due to this State/Federal participation in several of the projects, all design development work and construction of the improvements must be performed in strict compliance with FHWA and LADOTD policies and procedures.

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Mark K. Annino, E.I.

**Project Assignment:**

Civil Engineering

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

27 Years of Experience with LH&J; 27 Years of Total Experience

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

University of New Orleans / B.S. / 1995 / Civil Engineering

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

1995 / Civil / LA License No. EI.0016308

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

Annino has vast experience preparing plans and specifications for numerous municipal and private projects. The scopes of these projects include roadways, bridges, subsurface and major drainage structures, water distribution systems, utility system replacement / relocation (sewer, water, drain, etc.), hydraulic structures and horizontal / vertical geometric layouts. Annino has also been involved in the permit application process and construction administration of most projects he has designed.

**Jefferson Parish District 5 Streets Project, Metairie, LA**

Annino performed as Civil Engineering Design Team Leader on this project. This project includes the rehabilitation of over 100 flood damaged streets on the East Bank of Jefferson Parish. The project is being funded by FEMA.

**Dakin Street Improvements, Metairie, LA**

Annino performed Civil Engineering on this project. The Dakin Street Corridor project is divided into three Phases. Phase 1 entailed the construction of an underpass, railroad bridge and pump station at Dakin Street and Airline Drive. Phase 2 includes a 3,200 feet overpass and 1,250 feet of 4-lane roadway from the underpass to Jefferson Highway. Phase 3 will extend L&A Road from Dakin Street to the Earhart Expressway and includes installation of new subsurface drainage.

**Canal Street Improvements, Metairie, LA**

Annino is the Civil Engineering Design Team Leader for this project. This project includes the installation of a new double barrel box culvert in an open canal and enclosure of the canal, along with new subsurface drainage to tie the existing drainage into the new box culvert.

**Additional Experience and Qualifications**

**17<sup>TH</sup> Street Canal Widening Between Hoey's Canal and Airline Drive, Jefferson Parish / New Orleans, LA**

Annino was the Civil Engineering Design Team Leader for this project. This project entails the widening and concrete lining of approximately 700 feet of the 17<sup>th</sup> Street Canal between the Hoey's Canal and Airline Drive, including the construction of new pile-supported concrete canal bottom and pile-supported concrete retaining side walls.

**East and West Livingston Place Drainage Improvements, Metairie, LA**

Annino was the Civil Engineering Design Team Leader for this project. This project consisted of the reconstruction of East and West Livingston Place including installation of new subsurface drainage and utility relocation.

**Cuddihy Drive and Woodvine Avenue Drainage Improvements, Metairie, LA**

Annino was the Civil Engineering Design Team Leader for this project. This project consisted of the upgrading of the subsurface drainage system along Cuddihy Drive and a part of Woodvine Avenue and the reconstruction of the affected roadways.

**Magazine Street / Prytania Street Reconstruction, New Orleans, LA**

Annino was the Civil Engineering Design Team Leader for this project. This project entailed the reconstruction of 26,500 feet of roadway including replacement of subsurface drainage and utility relocation.

**Replace Six Canal Crossings Over General DeGaulle Boulevard Canal, New Orleans, LA**

Annino was the Civil Engineering Design Team Leader for this project. This project required the removal of 6 existing canal crossings and replacement them with double 20 wide concrete box culverts and replacement of roadway crossing.

**Louisville Street /Catina Street Reconstruction, New Orleans, LA**

Annino was the Lead Civil Engineering Designer for this project. This project entailed the reconstruction of 3,950 feet of roadway including replacement of subsurface drainage and utility relocation.

**Claiborne Avenue Box Canal I-Monticello Canal to Leonidas Street, New Orleans, LA**

Annino performed as Lead Civil Engineering Designer on this project. This project entailed the construction of a 20 foot wide by 10 foot deep Drainage Culvert and reconstruction of the Claiborne Ave damaged roadway under the SELA program for the Corps of Engineers (COE). Also included replacement of local street subsurface drainage.

**Hollygrove Drainage Improvements, New Orleans, LA**

Annino performed Civil Engineering on this project. LH&J designed all drainage improvements including the Forshey Street-Railroad Embankment Drainage Culvert Improvements, the Dublin Street and Eagle Street Drainage Culvert Improvements, the Oleander Street Culvert modifications, and the Pritchard Street Pumping Station.

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

William J. Muller, P.L.S., Registered Land Surveyor

**Project Assignment:**

Land Surveyor

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

18 Years of Experience with LH&J; 50+ Years of Total Experience

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

Southeastern Louisiana University / 1954

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

1995 / Land Surveying / LA License No. PLS. 0004756

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

Muller has extensive experience in all aspects of land surveying throughout Louisiana. He was technical manager for the largest land survey firm in Southeast Louisiana for many years. Prior to that he worked in the offshore industry spotting well locations, run field crews for numerous Louisiana Power and Light topographic and boundary surveys, analyzed thousands of boundary surveys, and supervised multiple field crews, draftsmen and land surveys. He has been providing land surveying for the firm the past 11 years.

Following is a small sampling of Muller's experience:

**Woodland Drive – General DeGaulle Drive to Tullis Drive**

**Lead Land Surveyor.** Topographic and boundary survey for City of New Orleans roadway project.

**Magazine Street - Roadway Improvements**

**Lead Land Surveyor.** Topographic and boundary survey for City of New Orleans roadway project.

**General DeGaulle Canal Crossings**

**Lead Land Surveyor.** Topographic and boundary survey for State Highway 428.

**South Claiborne Avenue Canal I**

**Lead Land Surveyor.** Topographic and boundary survey for State Highway 90.

**St. Charles Avenue Napoleon Avenue to Calliope Street**

**Lead Land Surveyor.** Topographic and boundary survey for City of New Orleans roadway.

**Additional Experience and Qualifications**

**I-10 Metairie – Causeway to Orleans Parish Line**

Lead Land Surveyor. Topographic and boundary survey for Interstate 10.

**I-10 Metairie – Clearview to Causeway**

Lead Land Surveyor. Topographic and boundary survey for Interstate 10.

**I-10 Metairie – Veterans Memorial Boulevard to Clearview**

Lead Land Surveyor. Topographic and boundary survey for Interstate 10.

**I-10 Kenner – Williams Boulevard Interchange**

Lead Land Surveyor. Topographic and boundary survey for Interstate 10.

**US 190 - Mandeville – Causeway to State Park**

Lead Land Surveyor. Topographic and boundary survey for U.S. Highway 190.

**US 190 - Slidell – Fremaux Interchange**

Lead Land Surveyor. Topographic and boundary survey for U.S. Highway 190.

**US 190 - Slidell – Fremaux - 9th To I-10**

Lead Land Surveyor. Topographic and boundary survey for U.S. Highway 190.

**I-10 Slidell - LA 433 to US 190**

Lead Land Surveyor. Topographic and boundary survey for Interstate 10.

**US 190 Slidell - US 11 to Thompson Rd.**

Lead Land Surveyor. Topographic and boundary survey for U.S. Highway 190.

**ST. Tammany Parish East of Abita Springs – New Highway from LA 36 to LA 435**

Lead Land Surveyor. Topographic and boundary survey for new Louisiana state highway.

**LA 611 – Metairie Road**

Lead Land Surveyor. Topographic and boundary survey for State Highway LA 611.

**I-10 New Orleans - South Broad to St. Charles**

Lead Land Surveyor. Topographic and boundary survey for Interstate 10.

**LA 3139 Earhart Boulevard – Jefferson/Orleans Parish Line to Clara Street**

Lead Land Surveyor. Topographic and boundary survey State Highway 3139.

**Lake Charles – McNeese/Airport**

Lead Land Surveyor. Topographic and boundary survey for Lake Charles, Louisiana airport.

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Daniel D. Bindewald, Survey Party Chief

**Project Assignment:**

Survey Party Chief

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

13 Years of Experience with LH&J; 13 Years of Total Experience

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

Southeastern Louisiana University / B.A. / Criminal Justice

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

N/A

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

Bindewald has served as a survey party chief on numerous projects.

His land surveying experience includes a variety of survey types: boundary, coastal marsh, topographic, base flood elevation, drainage, elevation grid surveys for contour development and hydrographic surveys. He has coastal marsh survey and mapping experience at sites across south Louisiana, Mississippi and Texas.

He was the party chief responsible for several U.S. Army Corps of Engineers survey contracts across south Louisiana; responsibilities included levee centerline profiles, cross section surveys, baseline traversing and riverfront topographic surveys.

**Survey Experience:**

- East Jefferson Levee District Foreshore Protection, Jefferson Parish, LA
- Jesuit Bend Mitigation Bank Hydrographic Survey – Plaquemines Parish, LA
- GIWW to Clovelly Hydrologic Restoration Hydrographic Survey – Lafourche Parish, LA
- LPV 20.2 Foreshore Protection – Jefferson Parish, LA
- Grand About Vegetative Ridge Restoration – Plaquemines Parish, LA
- Saltwater Sill LaBranche Wetlands Hydrographic Survey – St. Charles Parish, LA
- Pipeline Survey – Mississippi River Entergy Site – St. Francisville, LA
- Elevation Assistance Program – St. John the Baptist Parish, LA

**Additional Experience and Qualifications**

- Algiers Lock Forebay Water Line Crossing Hydrographic Survey – Orleans Parish, LA
- Levee Centerline and Cross Section Survey – LPV 109.02a from south of I-10 to CSX Tracks – Orleans Parish, LA
- Mississippi River Ventures Aggregate Yard – St. Charles Parish, LA
- Various Surveys for Pontchartrain Levee District
- Avondale Dock Multi-Beam Sonar/Hydrographic Survey – Jefferson Parish, LA



**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Paul H. Morales, IV, Survey Party Chief

**Project Assignment:**

Survey Party Chief

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

9 Years

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

University of New Orleans / B.S. / 2005 / Civil Engineering

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

N/A

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

Morales has surveying, civil engineering design and resident inspection experience. During two summers while still in college, he often served as an LH&J survey crew member. He was a design engineer for civil site work on numerous CVS/Pharmacy and Dollar General store sites. Large Scale Topographical and ALTA Surveys for U.S. Army Corps of Engineers, Plaquemines Parish Government, and a major pharmacy chain. Elevation, Construction Layout and Pile Layout, GPS, Robotics, Total Station experience including data transfer, plotting and printing. Manual and Mechanical Traffic Counts. TWIC

**Survey Experience**

- Large Scale Topographical and ALTA Surveys for U.S. Army Corps of Engineers, Plaquemines Parish Government and a major pharmacy chain.
- Lake Borgne Shoreline Protection Side Scan Sonar, St. Bernard Parish, LA
- Hydrographic Survey of Darrow Sand Pit Dredge Operations, Ascension Parish, LA
- Hydrographic Survey for Charenton Flood Gate, St. Mary Parish, LA
- Elevation, Construction Layout and Pile Layout
- GPS, Robotics, Total Station experience including data transfer, plotting and printing.
- Manual and Mechanical Traffic Counts.
- Pile Layout and Topographic Surveys for U.S. Army Corps of Engineers, Inner Harbor Navigation Canal and MRGO Closure Structure.

**TEC Professional Services Questionnaire**

**Paul H. Morales, IV**  
**Project Assignment – Survey Party Chief**

- Survey of levees abutting Pump Stations in St. Tammany, Plaquemines and St. Bernard Parish
- Mississippi River Dredging Survey, Avondale Shipyard Redevelopment, Avondale, LA
- South Shore Harbor Marina Dredging Survey, New Orleans, LA
- Grand Isle Dredging Study, Grand Isle, LA
- HSDRRS Levee Profiles for Southeast Louisiana Flood Protection Authority-East, Lake Pontchartrain Levee System, New Orleans, Jefferson and St. Bernard Parishes, LA

His resident inspection experience includes the following:

- Multiple CVS/Pharmacy stores
- Multiple Dollar General stores
- Hoey's Canal Improvements (Phase II & III), Jefferson Parish, LA
- Alliance levee breach repair - Plaquemines Parish, LA
- Pontchartrain Center – Front Driveway Asphalt Project, Kenner, LA
- Jefferson Parish N. Hullen Sewer Force Main Rehabilitation, Metairie, LA
- Jefferson Parish Canal Street Median Improvements, Metairie, LA
- Avondale Dock Multi-Beam Sonar/Hydrographic Survey – Jefferson Parish, LA



**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

John L. Scruggs, Sr., Resident Inspector

**Project Assignment:**

Construction Administration and Senior Resident Inspector

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

1 Year

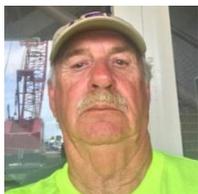
**Education: Degree(s)/Year Specialization:**

Tulane University / Business Administration  
Nicholls State University – Safety Certified II Diploma (T-2)

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

N/A

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



**RELEVANT EXPERIENCE:**

**ORLEANS MARINA SEEPAGE REPAIRS PHASE III, BULKHEAD REPLACEMENT PROJECT, NEW ORLEANS, LA**

The project consists of demolition of existing bulkhead cap, removing and replacing asphalt parking and associated items, installation of a new sheet pile bulkhead and timber piers for the Orleans Marina. As a resident project representative, Mr. Scruggs serves as an Engineer's liaison with the Contractor. He assists the Engineer to provide information to the Contractor regarding the intent of the contract documents . He is also responsible for conducting daily site observations of the Contractor's work, keeping track of quantity of work performed, and generating daily reports which summarize the Contractor's work."

**ST. BERNARD HOUSING PROJECTS**

Rebuild drainage, sewer, water and streets.

**NEW ORLEANS FRENCH QUARTER**

Point repairs: Sewerage and drainage

**UPTOWN – Claiborne to St. Charles Avenue and Napoleon Avenue to Jefferson Avenue**

Point Repairs

**ST. BERNARD PARISH, LA**

Rehab Lift Stations

**CITY OF NEW ORLEANS: WEST END BOULEVARD, NEW ORLEANS, LA**

Responsible for \$2.7M Street\_Reconstruction Project - (Kenilworth - Harrison Avenue) Urban Project constructed under State Guidelines.

**CITY OF JACKSON, MISSISSIPPI-SMITH ROBERTSON MUSEUM, JACKSON, MS**

Responsible for \$320,000 of site work improvements, drainage, sidewalks, asphalt and concrete work, and electrical lighting.

**TOWN OF GRAMERCY-AIRLINE HIGHWAY SEWER LINE IMPROVEMENTS, GRAMERCY, LA**

Responsible for sewer line improvements and construction of sewer lift stations.

**HOUSING AUTHORITY OF NEW ORLEANS-IBERVILLE/LAFITTE HOUSING PROJECT**

Responsible for \$1.2M improvements to fire escapes, drywall, and insulation of fire doors.

**ORLEANS PARISH SCHOOL BOARD, NEW ORLEANS, LA**

Frantz Elementary School - Responsible for \$289,000 improvements for ADA Elevator, and related improvements.

Chester Elementary School

Responsible for \$664,000 of improvements to Air-Conditioning System.

Sherwood Forest Elementary School

Responsible for \$484,000 of improvements to Air-Conditioning System.

**CITY OF NEW ORLEANS: BURTHE STREET**

Responsible for \$1.9M improvements to drainage, sewer, water line, pavement, sidewalks, and asphalt. Responsible for weekly progress meetings, field changes, plan changes, pay changes, and correspondence between C.N.O. and contractor.

Removal and replacement of existing asphalt roadway, installation of sub-surface drainage, catch basins, concrete curbs and gutters, etc.

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Cecily K. Criscoe, E.I.

**Project Assignment:**

Coastal / Hydraulic Engineer

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

1 Years of Experience with LH&J; 3 Years of Total Experience

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

Louisiana State University Baton Rouge / M.S. / 2010 / Civil Engineering (Coastal)

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

2021/Civil/LA License No. E.I. 0034794

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

Criscoe has both coastal/environmental inspection and design experience as well as municipal roadway and drainage design experience. She has worked on environmental surveys and assessment reports, cost analysis for dredging contracts and for road reconstruction and redesign projects. Additionally, she has engineering drawing, design, and modeling experience for coastal restoration, underground aquifer conservation, roadway and drainage redesign and reconstruction.

**Chris Kennedy Bridge Replacement, Pearl River, LA**

Criscoe uses the HEC RAS software in hydraulic design to model depth of flow through Gum Creek during various storm frequency conditions in Pearl River, LA in-order-to determine parameters for bridge redesign.

**Rivertown Industrial Park Jefferson Highway Property, Kenner, LA**

Criscoe uses Autodesk Storm and Sanitary Analysis software in hydraulic design to calculate pre and post construction storm water runoff over a 13-acre currently undeveloped site in Kenner, LA. She models and designs detention ponds and a piping network to ensure compliance with local drainage codes through routing, draining, and storing runoff in-excess-of the pre-construction condition.

**TEC Professional Services Questionnaire**

**Cecily K. Criscoe, E.I.**  
**Project Assignment – Coastal/Hydraulic Engineer**

**Resume**

**Additional Experience and Qualifications**

**Construction Management and Roadway Redesign, Minnesota**

Criscoe was project manager for multiple construction road reconstruction projects in rural Minnesota following a spring flooding event due to snow melt that washed out many gravel roads, culverts, and stream embankments. Cost estimation was a necessary part of her role in the project.

**Wetland Delineation and Environmental Assessments, Texas and Louisiana**

Criscoe received certification in wetland delineation and performed environmental field surveys in both Texas and Louisiana. She also aided in the organization, research, and writing of Environmental Assessments for NEPA.



**Jefferson**  
**Parish**  
State of Louisiana

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Colin V. Landry

**Project Assignment:**

Structural Engineer/Inspection Team Member

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

2 Years of Experience with LH&J; 2 Years of Total Experience

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

University of Louisiana at Lafayette / B.S. / 2021 / Civil Engineering

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

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

Landry has been with LH&J for one year and has the following relevant experience:

**Avondale Shipyard Redevelopment, Avondale, LA**

Assisted in the analysis and design for multiple parts of the project. Some of the parts include designing a new truck access ramp and beam modifications for crane rails. Landry also worked on AutoCAD structural drawings.

**Rehabilitation of Berths 2 & 3 City Docks, Port of Lake Charles, LA**

Performed structural engineering designs and drafting on this **CMAR** project requiring Substructure Inspection, Coordination with the CMAR Contractor, Partnering, Design Constructability Reviews, Value Engineering Reviews, Cost Estimating, Detailed Design, Preparation of Plans and Specifications to demolish the existing timber pile wharf and replace with a new concrete wharf with a uniform live load capacity of 2,000 PSF and capable of supporting a Liebherr Mobil Harbour Crane LHM 550.

**Darrow Sandpit, Darrow, LA**

Created a permit application for dredging in a sandpit, including plans and cross sections

**TEC Professional Services Questionnaire**

Colin V. Landry

Resume

Project Assignment – Structural Engineer/Inspection Team Member

**Additional Experience and Qualifications**

**Wilson Investment Bulkhead, Belle Chasse, LA**

Assisted in the analysis and design of a cantilevered steel sheet pile bulkhead and an earthen ramp over the adjacent flood protection levee. Landry also worked on the AutoCAD drawings for the project.



**Jefferson  
Parish**  
State of Louisiana

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

**Name & Title:**

Eric R. Wright, E.I.

**Project Assignment:**

Structural Engineer/Inspection Team Member

**Name of Firm with which associated:**



**LINFIELD, HUNTER & JUNIUS, INC.**

**Years' experience with this Firm:**

2 Years of Experience with LH&J; 2 Years of Total Experience

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

Louisiana State University/ B.S. / 2020 / Civil Engineering

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

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

Wright has been with LH&J for two years and has the following relevant experience:

**NASA Michoud Assembly Facility – East & West Barge Dock Projects and Drainage Pump Station Outfall Condition Assessment, New Orleans, LA**

LH&J has been NASA's Michoud Assembly Facility's go to marine engineering firm since 1994. Structural Engineer Intern on the recently completed inspections and assessments of the West and East Barge Docks and Mooring Dolphins. He provided calculations, repair details, assisted in writing the assessment report, and developed opinions of probable construction costs.

**Avondale Shipyard Redevelopment, Westwego LA**

Assisted in the analysis and design for multiple parts of the project. Some of the parts include designing a new truck access ramp, a new topping for the wet docks, and also beam modifications for crane rails. Additionally, Wright worked on AutoCAD structural drawings and AutoCAD drawings for the dredging phase of the project.

**Bayou Segnette Drainage Pump Station No. 1 Bridge, Jefferson Parish, LA**

Wright assisted in analyzing and designing bridge deck and bridge bent caps for a bridge at a drainage station on Bayou Segnette.

## TEC Professional Services Questionnaire

Eric R. Wright, E.I.

Resume

Project Assignment – Structural Engineer/Inspection Team Member

### **Additional Experience and Qualifications**

#### **Rehabilitation of Berths 2 & 3 City Docks, Port of Lake Charles, LA**

Performed structural engineering designs and drafting on this **CMAR** project requiring Substructure Inspection, Coordination with the CMAR Contractor, Partnering, Design Constructability Reviews, Value Engineering Reviews, Cost Estimating, Detailed Design, Preparation of Plans and Specifications to demolish the existing timber pile wharf and replace with a new concrete wharf with a uniform live load capacity of 2,000 PSF and capable of supporting a Liebherr Mobil Harbour Crane LHM 550.

#### **Polk Street Bridge, Terrebonne Parish, LA**

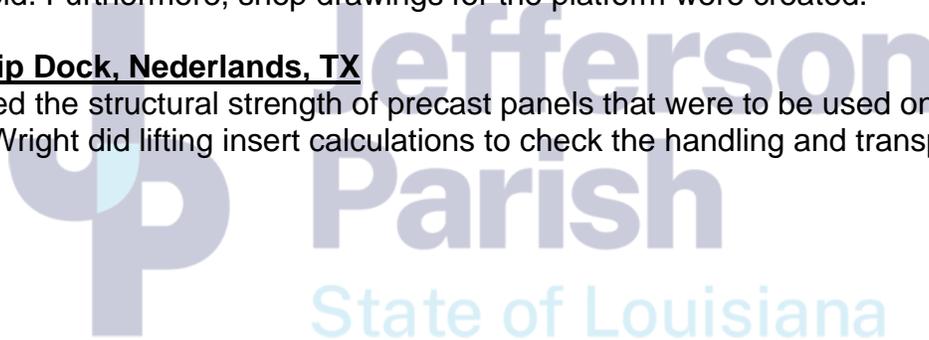
Wright was a part of producing design calculations for a bridge deck and bridge bent caps for a bridge with three 23 foot spans of 29 foot clear crowned roadway with an 8 percent skew.

#### **Mermentau River GXC Delivery Meter Station, Cameron Parish, LA**

In this project Wright helped analyze and design a 71 foot 8 inch by 78 foot platform to be used in an oil and gas field. Furthermore, shop drawings for the platform were created.

#### **SUNOCO Ship Dock, Netherlands, TX**

Wright checked the structural strength of precast panels that were to be used on a ship dock. Additionally, Wright did lifting insert calculations to check the handling and transport stresses on the panel.



## 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

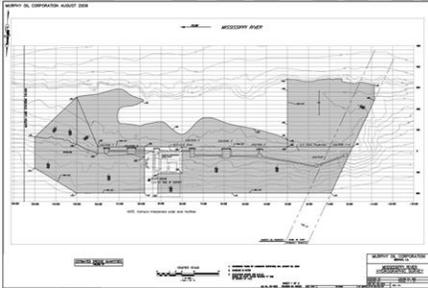
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Grand Bayou Vegetative Ridge Restoration</b>  <b>Plaquemines Parish, LA</b></p> <p><b>Plaquemines Parish Government</b>  <b>333 F. Edward Hebert Blvd, Bldg. 500</b>  <b>Belle Chasse, LA 70037</b>  <b>Mr. Ken Dugas</b>  <b>(504) 394-6115</b></p> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <p style="text-align: center; color: red;"><b>Relevant Key Features</b></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning and Design</li> <li>✓ Permitting</li> <li>✓ Ridge Restoration</li> <li>✓ Shoreline Stabilization and Protection</li> <li>✓ Beneficial Use of Dredge Material</li> <li>✓ Living Shoreline Design</li> <li>✓ Hydrologic and Hydraulic Modeling</li> <li>✓ Design Analysis and Reports</li> <li>✓ Technical Evaluations</li> <li>✓ Cost Estimates and Value Engineering</li> <li>✓ Field Investigations</li> </ul> </div>	<p>LH&amp;J was retained by the Plaquemines Parish Government to perform site investigations and preliminary engineering designs that would be used to restore the historic natural ridge that had previously meandered along the eastern bank of Grand Bayou. Initial efforts included site visits and assimilation of existing soils information that was available for nearby coastal restoration, as well as other types of projects. All aspects of constructability and long term survivability were considered in the planning stages. Considerations included the source and transportation of suitable materials to be used in reconstruction of the historic natural ridge, avoidance of underground pipelines and utilities that could be damaged by the construction operations and potential long term settlement, minimizing impacts to cultural resources and endangered species and long term survivability and performance of the reconstructed ridge.</p> <p>The natural ridges that have previously existed in Southeastern Louisiana not only provided unique bio-diversity and habitat, but also assisted in flood risk reduction during tropical storms and hurricanes by functioning as a "speed bump" defending against coastal surges and waves by reducing wave heights and reducing surge levels. The natural rebuilding of these historic ridges has been hampered by the flood protection levees along the Mississippi River.</p> <p>To construct this project, natural sandy deposits will be dredged from designated borrow areas within the Mississippi River and transported overland by pipeline to the ridge restoration location along Grand Bayou. Access channels will be excavated to allow flotation of the ridge construction equipment and the marshy top soils will be retained on-site and used as a capping material to provide a loamy layer on top of the reconstructed ridge to facilitate plant establishment and growth.</p> <p>The ridge cross section was selected to provide optimum hydraulic performance in reducing overtopping wave heights and surge levels during tropical events. The ridge crest elevation was selected to account for future settlement of the weak underlying soils to ensure an acceptable long term resiliency and performance of the reconstructed ridge.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
Project is On Hold Awaiting Funding	\$100 Million (Estimated)	\$100 Million (Estimated)



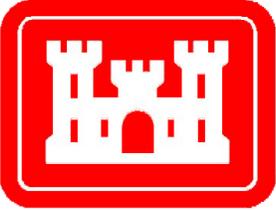
## TEC Professional Services Questionnaire

PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Spanish Pass Freshwater Diversion Project, Venice, LA</b></p> <p><b>Plaquemines Parish Government</b>  <b>333 F. Edward Hebert Blvd, Bldg. 500</b>  <b>Belle Chasse, LA 70037</b>  <b>Mr. Ken Dugas</b>  <b>(504) 394-6115</b></p> <div style="text-align: center;">  </div> <div style="background-color: #e0e0e0; padding: 5px; margin-top: 10px;"> <p style="color: #A52A2A; font-weight: bold; margin: 0;"><i>Relevant Key Features</i></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning and Design</li> <li>✓ Permitting</li> <li>✓ Wetland Restoration</li> <li>✓ Shoreline Stabilization and Protection</li> <li>✓ Beneficial Use of Dredge Material</li> <li>✓ Living Shoreline Design</li> <li>✓ Hydrologic and Hydraulic Modelin</li> <li>✓ Design Analysis and Reports</li> <li>✓ Technical Evaluations</li> <li>✓ Cost Estimates and Value Engineering</li> <li>✓ Field Investigations</li> <li>✓ Freshwater Diversion</li> </ul> </div>	<p>While designing a project for the Plaquemines Parish Government to elevate Tidewater Road in Venice, LA, recently flown infrared imagery of the area was examined. The imagery indicated that Spanish Pass and Red Pass had once converged at the S- curve in Tidewater Road. Both Passes had originated at this point just below the junction of Grand Pass and the Mississippi River. Further research showed the passes had been shut off from Grand Pass in the 1960s, thereby eliminating a natural source of sediment and fresh water during high river periods. West of this point of convergence, Spanish Pass ran northwest and Red Pass ran west approximately 3 miles to the Wagon Wheel, a natural salt dome. The triangular area bounded by Spanish Pass, Red Pass, and the Wagon Wheel had been a vibrant marsh just 30 years ago but was now open water.</p> <p>LH&amp;J recognized this site provided an ideal setting for a freshwater diversion project. Natural flow could be easily restored and at low cost by constructing a bridge and river outfall at the S-curve, the natural ridges along the passes and the high elevation of the Wagon Wheel salt dome would confine the fresh water and sediments and allow a natural setting for land creation. With support from Plaquemines Parish Government the firm nominated the project for consideration through the Coastal Wetlands Planning, Protection, and Restoration Act nomination process. The Spanish Pass Diversion Project was accepted as a Candidate Project in the Priority Project List Number 13 (PPL13). After going through a competitive evaluation with other candidate projects, the Spanish Pass Diversion Project received the highest ranking on PPL13 and was authorized to proceed to Phase I design.</p> <p>This project documents specialized experience in design of unique coastal restoration projects, technical presentations, knowledge of wetland morphology, and design of outfall structures.</p> <div style="text-align: right; margin-top: 20px;">  </div>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
Project is On Hold Awaiting Funding	\$4.5 Million (Estimated)	\$4.5 Million (Estimated)

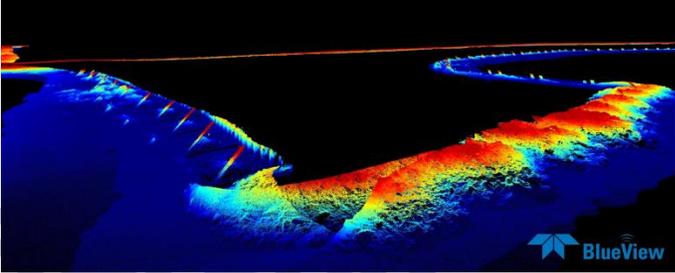
## TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Murphy Oil U.S.A., Inc., Loading &amp; Unloading Wharves Meraux, LA</b></p> <p><b>Murphy Oil U.S.A., Inc. 504-277-4141</b></p> <div style="background-color: #e0e0e0; padding: 10px; margin-top: 10px;"> <p style="text-align: center; color: #a52a2a; font-weight: bold;"><i>Relevant Key Features</i></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning</li> <li>✓ Permitting</li> <li>✓ Design</li> <li>✓ Beneficial Use of Dredge Material</li> <li>✓ Design Analysis and Reports</li> <li>✓ Technical Evaluations</li> <li>✓ Cost Estimates and Value Engineering</li> <li>✓ Field Investigations</li> <li>✓ Conducting Geotechnical analysis, material testing and analysis</li> </ul> </div>	<p>Since 2000 Linfield, Hunter &amp; Junius, Inc. has been serving as Murphy Oil U.S.A.'s engineering consultant for their import/export docks on the Mississippi River in St. Bernard Parish. Murphy's dock consists of one berth for large deep draft ocean oil tankers and ocean going oil barges and two additional berths for smaller oil barges. Prepared plans and specifications for annual maintenance dredging, damage repairs, maintenance and improvements to barge and ship bulk oil loading and unloading facilities.</p> <p>Projects to date include the following:</p> <ul style="list-style-type: none"> <li>❖ Preparation of plans and specifications for annual dredging (2002 to 2013)</li> <li>❖ Inspection of piles from mudline to deck (Dolphin No. 5).</li> <li>❖ Analysis of dolphins for repair after ship collision damages.</li> <li>❖ Performed engineering analyses to confirm compatibility and prepared designs, plans &amp; specifications for the replacement of four (4) Raykin fenders on Dolphin #4.</li> <li>❖ Prepared all designs and provided complete spans, specifications and details for modifications to Dolphin #7 to allow the coordinated installation of two new pre-fabricated aluminum gangways.</li> <li>❖ Developed engineering designs and provided detailed plans and specifications for Modifications to Dolphin #3 for extending the structural deck to allow vessel gangplanks to access this dolphin.</li> <li>❖ Preparation of plans and specifications for modifications to walkway No. 4.</li> <li>❖ Preparation of plans and specifications for two (2) new hydraulic pedestal cranes.</li> </ul> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  <p style="font-size: small; margin-top: 5px;">Murphy Oil Import/Export Dock</p> </div> </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2013	\$20 Million	\$20 Million

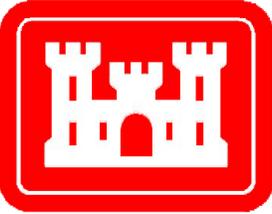
## TEC Professional Services Questionnaire

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>NOV-NF-W-04a</b>  <b>Levee Improvements</b>  <b>Oakville to La Reussite</b>  <b>Plaquemines Parish, LA</b></p> <p><b>USACE Vicksburg District 4155</b>  <b>Clay Street</b>  <b>Vicksburg, MS 39183</b>  <b>Mr. Ben Caldwell, PE</b>  <b>601-631-5593</b></p> <div style="text-align: center; margin: 10px 0;">  </div> <div style="background-color: #cccccc; padding: 5px;"> <p style="color: #a52a2a; margin: 0;"><i>Relevant Key Features</i></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning and Design</li> <li>✓ Permitting</li> <li>✓ Designing Earthen Levees, Levees &amp; Floodwalls</li> <li>✓ Hurricane and Storm Damage Risk Reduction System Project</li> <li>✓ Shoreline Stabilization &amp; Protection</li> <li>✓ Design Analysis and Reports</li> <li>✓ Technical Evaluations</li> <li>✓ Cost Estimates</li> <li>✓ Field Investigations</li> <li>✓ Outreach and Educational Support</li> <li>✓ Preparation of Plans</li> <li>✓ Preparation of Specifications</li> <li>✓ Surveying</li> <li>✓ Agency Coordination</li> </ul> </div>	<p>LH&amp;J prepared the right-of way drawings, design documentation report, plans, specifications and cost estimates for the NOV-NF-W-04 project which is constructing 8.3 miles of new levees and T-wall transitions paralleling Highway 23 from Oakville, LA to the LaReussite Siphon in Plaquemines Parish, LA. This \$46 million project will replace the existing non-federal levees with a new flood protection system that is designed and constructed in compliance with the post-Katrina developed requirements of the Hurricane and Storm Damage Reduction System Design Guidelines (HSDRSDG). At the south end of the project, the flood protection alignment crosses the discharge canal for the LaReussite Siphon adjacent to Highway 23. To maintain the functionality of the existing siphon, LH&amp;J developed designs for 550 feet of T-walls for construction using eight 72-inch diameter siphon tubes extending through the new line of protection at a depth of 8 feet below the normal water level in the discharge canal. LH&amp;J also supervised the design of a separate project to construct T-wall fronting protection and a new pre-cast concrete bridge at the Ollie Pumping Station.</p> <p>Team member Eustis performed the geotechnical analyses and engineering for this project that included design phase services for the earthen levee raise, the north and south T-walls, the T-wall fronting protection system at the Ollie Pump Station, and five complicated transitions between levees and pile supported T-walls. Initial services included the evaluation of significant geotechnical data comprising 5-inch diameter undisturbed soil borings and CPTs taken along the existing levee alignment. Eustis developed soil design reaches based on data review and provided geotechnical recommendations and analyses for the design of the 8.3-mile levee enlargement. The original feasibility study efforts centered around evaluation of single and multiple stages of levee construction, two levee crown/floodwall elevations, and the use of prefabricated vertical drains (wicks) to accelerate consolidation settlement beneath levee enlargements. The option without wicks was chosen by the USACE for development of final plans and specifications.</p> <div style="text-align: right; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2018	\$46 Million	\$46 Million

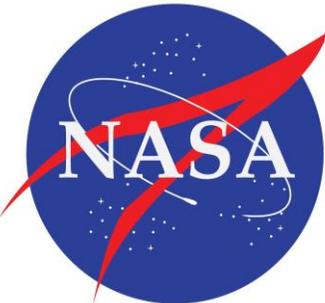
## TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>South Shore Harbor Marina Dredging Project: Civil, Structural, Coastal, Geotechnical Engineering, Permitting and Hydrographic Surveying New Orleans, LA</b></p> <p><b>Lakefront Management Authority, 6001 Start &amp; Stripes Blvd., Suite 149 New Orleans, LA 70126 504-782-0458</b></p> <div style="background-color: #e0e0e0; padding: 5px; margin-top: 10px;"> <p style="color: #C00000; text-align: center;"><b>Relevant Key Features</b></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning</li> <li>✓ Permitting</li> <li>✓ Design of Floodwalls</li> <li>✓ Design Analysis and Reports</li> <li>✓ Shore Stabilization and Protection</li> <li>✓ Beneficial Use of Dredge Material</li> <li>✓ Living Shoreline</li> <li>✓ Technical Analysis</li> <li>✓ Cost Estimating</li> <li>✓ Field Investigations</li> <li>✓ Hydrographic and Topographic Surveying</li> <li>✓ Dredge Volumes</li> <li>✓ Turbidity Testing</li> </ul> </div>	<p>LH&amp;J provided full civil, structural engineering, project management, environmental permitting, hydrographic and topographic surveying services to the Lakefront Management Authority (Non-Flood Protection Asset Management Authority) to dredge the entrance to the Southshore Harbor on Lake Pontchartrain in New Orleans. The project consisted of pre-construction surveys and a dredge fill analysis to determine the amount of fill available to rebuild approximately 20 acres of the North Peninsula with the dredge material approximately ¼ of a mile away. A detailed structural and geotechnical analysis was performed on the existing North Peninsula bulkhead to determine if the structure was capable of supporting hydraulic fill to the top of the bulkhead wall. After determining the bulkhead could not accept additional fill LH&amp;J met with various state and local officials regarding disposal of the dredge material into Lake Pontchartrain. After evaluating a number of spoil disposal options it was decided to place the spoil material adjacent to the existing shore to build additional wetlands in the Lake. LH&amp;J prepared and submitted all required permits. The project was permitting through CPRA, LADEQ, USACE and SLFPA-E. A Teledyne RESON SeaBat T20P High resolution multibeam echosounder was used to conduct the hydrographic survey. HYPAK/HYSWEEP was used for the post processing of the data with Teledyne Blueview for data imaging and viewing. LH&amp;J produced full plans and specifications and cost estimates and assisted the LMA in bidding of the project. LH&amp;J also provided engineering services during construction and full-time resident inspection during construction. The project was successfully completed on time and within budget.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2020	\$150,000	\$150,000

## TEC Professional Services Questionnaire

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Inner Harbor Navigation Canal Surge Protection Barrier</b> New Orleans, LA</p> <p><b>USACE New Orleans District</b> P.O. Box 60267 New Orleans, LA 70160 Mr. Christopher Dunn 504-862-1799</p> <div style="text-align: center; margin: 10px 0;">  </div> <div style="background-color: #e0e0e0; padding: 5px; border: 1px solid #ccc;"> <p style="color: #A52A2A; font-weight: bold; margin: 0;"><i>Relevant Key Features</i></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning</li> <li>✓ Design of Floodwalls</li> <li>✓ Shoreline Stabilization and Protection</li> <li>✓ Hydrologic and Hydraulic Modeling</li> <li>✓ Design Analysis and Reports</li> <li>✓ Technical Evaluations</li> <li>✓ Cost Estimates</li> <li>✓ Field Investigations</li> <li>✓ Hurricane and Storm Damage Risk Reduction System Project</li> <li>✓ Geotechnical Engineering</li> <li>✓ Surveying</li> </ul> </div>	<p>The Inner Harbor Navigation Canal (IHNC) is the largest Design-Build Project ever undertaken by the USACE. LH&amp;J provided planning, engineering design, and construction of this monumental project with responsibility for the surveying, engineering designs, preparation of construction drawings and development of specifications for the following features:</p> <p><b>North T-Wall and Tie-in</b> – This massive pile supported T-wall provides the transition from the Gulf Intracoastal Waterway (GIWW) Sector Gate to the west end of project. The monolith stem sections extend 25 feet above the top of the base slabs to elevation greater than 26 feet (NAVD 88). The T-wall monoliths are supported by 36-inch diameter battered pipe piles designed to resist the tremendous unbalanced loads generated by 26 feet of surge loads against the flood side face. The total length of the North T-wall is approximately 740 feet.</p> <p><b>South T-wall and Tie-in</b> – The 570 foot long South T-wall provides a continuous transition from the end of the IHNC Surge Protection Barrier Floodwall to the concrete T-walls of the LPV-145 project and is similar to the North T-wall in construction.</p> <p><b>North and South Access Ramps</b> – The North Access Ramp is a 520-foot-long by 17-foot-wide pile supported concrete structure that provides vehicular access from grade to the Safe House parking platform at elevation more than 26 feet (NAVD 88). The 430 foot long South Access Ramp provides vehicular access from the top of levee at the St. Bernard end of the project up to the roadway atop and along the entire length of the IHNC Surge Protection Barrier Floodwall.</p> <div style="text-align: right; margin-bottom: 10px;">  </div> <p><b>GIWW Safe House</b> – The GIWW safe house is a 1,150-square-foot, pile supported, concrete structure with a finished floor elevation at elevation of 32 feet (NAVD 88), which is 6 feet above the top of floodwall. The safe house provides a refuge for operations personnel to remain on site and weather out severe storms and it is designed for 250 MPH winds. It also houses the remote monitoring systems and controls to operate the GIWW Sector Gate, as well as redundant emergency back-up generators with capacity to fully power and operate the gate.</p> <p><b>Dewatering Bulkheads</b> – The GIWW dewatering bulkheads are 155-foot-long by 6-foot-tall and 20-foot-wide steel truss structures, each weighing 80 tons and are used to allow dewatering for maintenance and inspection of the GIWW gate bay.</p>	
<b>Completion Date</b> (Actual or estimated):	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2015	\$1.5 Billion	\$66.5 Million

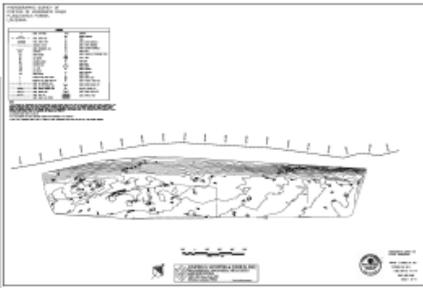
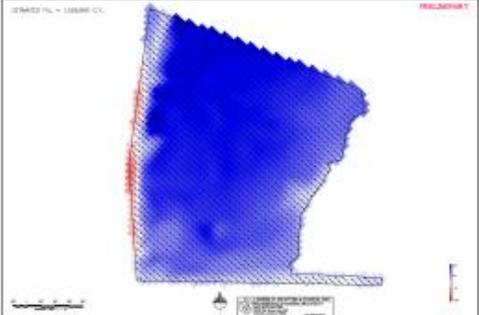
## TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>NASA Michoud Assembly Facility – East &amp; West Barge Docks, Drainage Pump Station Outfall Condition Assessment Projects, New Orleans, LA</b></p> <p><b>NASA</b>  <b>13800 Old Gentilly Rd.</b>  <b>New Orleans, LA 70129</b>  <b>Mr. Kenneth J. Miller</b>  <b>504-257-4182</b></p> <div style="text-align: center;">  </div> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <p style="color: red; font-weight: bold; text-align: center;">Relevant Key Features</p> <ul style="list-style-type: none"> <li>✓ <b>Cost Estimates and Value Engineering</b></li> <li>✓ <b>Permitting</b></li> <li>✓ <b>Design</b></li> <li>✓ <b>Design Analysis and Reports</b></li> <li>✓ <b>Technical Evaluations</b></li> <li>✓ <b>Field Investigations</b></li> </ul> </div>	<p>Since 1994 LHJ has been providing waterfront facility inspections, condition assessment reports, design calculations and analyses, construction drawings and specifications, cost estimating, value engineering, and assistance in environmental permit applications for this critical NASA facility. Major projects include:</p> <ul style="list-style-type: none"> <li>❖ Condition assessment of the East and West Barge Docks. These docks were originally constructed to load out the Saturn rockets used during the Apollo Space Program in the 1960's and were then used to load out the Space Shuttle's External Tanks until the end of Shuttle program. These docks consist of cast-in-place concrete decks and beams supported on Precast Prestressed concrete piles. This project included below and above water inspections, structural capacity analysis, and a condition assessment report including recommended repairs, repair details, cost estimates and alternatives. Approximate repair costs \$500,000.00</li> <li>❖ Inspection of Drainage Pump Station Outfall Structures including the steel discharge pipes, support piling and steel sheetpile bulkhead protection structure. LHJ conducted above and below water inspections, NDT tests of the discharge pipes and support structures, and prepared a condition assessment report which included recommended repairs, costs and alternatives. Approximate repair costs \$350,000.00</li> <li>❖ Shortly after the BP oil spill in the Gulf of Mexico in 2010, the Government contracted with LHJ to provide a detailed underwater pile inspection and above water dock inspection, a condition assessment report which included a structural capacity analysis of the West Barge Dock to support the damaged 500 ton blowout preventer from the BP Macondo well. LHJ provided allowable deck slab, beams and pile load capacities which were used to design the support structure for the blowout preventer.</li> <li>❖ NASA recently engaged LHJ to conduct another condition assessment report of the West Barge Dock to insure it can support the new Heavy Lift Launch Vehicle Core Stage Rockets being manufactured at the Michoud Assembly Facility.</li> </ul> <div style="text-align: center; margin-top: 10px;">  </div>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2018	\$3 Million	\$3 Million

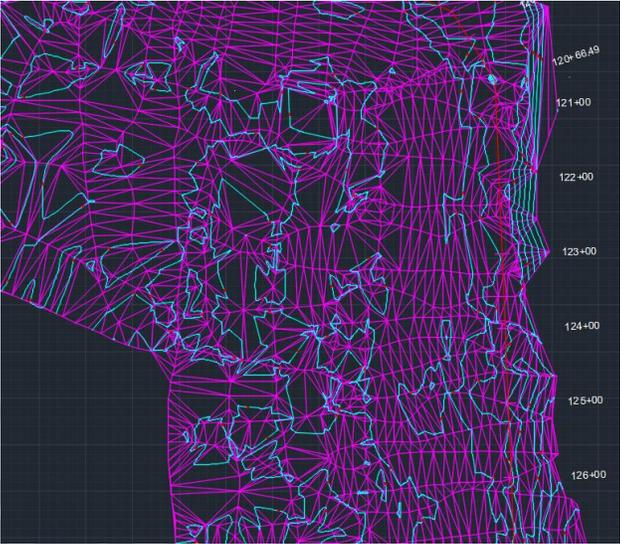
## TEC Professional Services Questionnaire

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Elevation and Reconstruction of Tidewater Road, Plaquemines Parish, LA</b></p> <p><b>Plaquemines Parish Government</b>  <b>333 F. Edward Hebert Blvd, Bldg. 500</b>  <b>Belle Chasse, LA 70037</b>  <b>Mr. Ken Dugas</b>  <b>504-394-6115</b></p> <div style="text-align: center;">  </div> <div style="background-color: #e0e0e0; padding: 5px; margin-top: 10px;"> <p style="color: #a52a2a; font-weight: bold; margin: 0;"><i>Relevant Key Features</i></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning</li> <li>✓ Erosion Control</li> <li>✓ Coastal Grant Writing</li> <li>✓ Permitting</li> <li>✓ Design</li> <li>✓ Shoreline Stabilization and Protection</li> <li>✓ Hydrologic and Hydraulic Modeling</li> <li>✓ Design Analysis and Reports</li> <li>✓ Technical Evaluations</li> <li>✓ Cost Estimating and Value Engineering</li> <li>✓ Field Investigations</li> <li>✓ Surveying</li> <li>✓ Coastal Erosion Control</li> </ul> </div>	<p>Tidewater Road is a 3 mile long roadway that is the primary access road serving the Venice Port facilities outside of the Plaquemines Parish Hurricane Protection System in Venice, Louisiana. The Venice Port is an essential facility for servicing the Mississippi River Maritime Industry and the Offshore Oil Industry. Because it lies outside of the hurricane protection levee system, the roadway is subject to flooding during high tidal conditions.</p> <p>In 2002 the Plaquemines Parish Government retained Linfield, Hunter &amp; Junius, Inc. to raise Tidewater Road to improve access to the Venice Port facilities. The first task undertaken by the firm was to assess the level to which the road should be raised to reduce flooding. Levels were run along the roadway and tied into nearby United States Corps of Engineers flood gages. Local businesses were interviewed to determine the frequency and depth of reported flooding. This assessment indicated that raising the roadway to elevation 5.0 NAVD 88 would reduce the occurrence of roadway flooding substantially. Significant improvement in roadside drains was also recommended. Means of raising the road were then identified and construction cost estimates were prepared.</p> <div style="text-align: right; margin-top: 10px;">  </div> <p>Phase I improvements raised approximately 6,000 linear feet of roadway from the Jump to Coast Guard Road. A detour road was constructed to maintain traffic during construction and substantial improvements were made to roadside drainage. In addition, an old 12-inch asbestos-cement waterline was replaced with a new 12" PVC waterline the length of the project. LH&amp;J prepared joint coastal use permit applications for both phases</p> <p>Phase II improvements, which raised the next 11,000 linear feet of roadway from Coast Guard Road to the entrance of the TARGA Refinery, were recently completed. The isolated location and limited land space available along the roadway presented a number of logistically challenging issues for maintaining vehicular traffic during construction. Unlike Phase I, limited land space made construction of a detour roadway impractical. Accordingly, an in-place phased construction sequence was utilized to maintain continuous vehicular traffic during construction. Both phases of the Tidewater Road Design included erosion control design. Both sides of the road are protected from erosion by various sizes of stone riprap as well as steel sheet pile walls for Phase II of the road.</p>	
	Estimated Cost:	
Completion Date (Actual or estimated):	Entire Project:	Work for which Firm was Responsible:
2017	\$27 Million	\$27 Million

## TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Jesuit Bend Mitigation Bank (Dredging and Marsh Creation) Plaquemines Parish, LA</b></p> <p>Restoration Systems, LLC 1101 Haynes Street, Suite 211 Raleigh, North Carolina 27604 919-755-9490</p> <p style="text-align: center; font-size: 24px;">Marsh Creation</p> <div style="text-align: center;">  </div> <div style="background-color: #cccccc; padding: 5px; margin-top: 10px;"> <p><b>Relevant Key Features</b></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning</li> <li>✓ Marsh Creation</li> <li>✓ Beneficial Use of Dredge Material</li> <li>✓ Technical Evaluations</li> <li>✓ Field Investigations</li> <li>✓ Hydrographic and Topographic Surveying</li> <li>✓ Dredge and Fill Volume Analysis</li> </ul> </div>	<p>LH&amp;J was selected to perform pre and post-construction surveying for the CPRA Jesuit Bend Mitigation Bank (Dredging and Marsh Creation Project). Over one million cubic yards of material was dredged from the Mississippi River and pumped to fill over 50 acres of marsh.</p> <div style="text-align: center; margin: 10px 0;">  </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div>	
Completion Date (Actual or estimated):	Entire Project:	Work for which Firm was Responsible:
2016	\$65,000 (Fee)	\$65,000 (Fee)

**TEC Professional Services Questionnaire**

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>GIWW to Clovelly Hydrologic Restoration</b> Lafourche Parish, LA</p> <p><b>APC Construction</b> 1910 Peters Road Harvey, LA 70058 504-539-4260</p> <div style="text-align: center; margin-top: 20px;"> <p>Hydrologic Restoration</p>  </div> <div style="background-color: #cccccc; padding: 5px; margin-top: 10px;"> <p><b>Relevant Key Features</b></p> <ul style="list-style-type: none"> <li>✓ Coastal Planning</li> <li>✓ Marsh Restoration</li> <li>✓ Shoreline Protection</li> <li>✓ Field Investigations</li> <li>✓ Technical Evaluations</li> <li>✓ Hydrographic and Topographic Surveying</li> <li>✓ Fill Volume Analysis</li> </ul> </div>	<p>LH&amp;J worked for APC Construction to perform post-construction surveying for the CPRA GIWW to Clovelly Hydrologic Restoration project in Lafourche Parish, LA. Over 40 acres marsh and 2900 linear feet of rock dike was surveyed providing profiles and sections of the as-built condition.</p> <div style="text-align: right; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: right; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2016	\$65,000 (Fee)	\$65,000 (Fee)

**TEC Professional Services Questionnaire**

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

Parties		Status/Result of Case:
Plaintiff:	Defendant:	
1. 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.**

**INTRODUCTION**

**Linfield, Hunter & Junius, Inc. (LH&J)** is pleased to submit its proposal for the **Jefferson Parish Coastal Engineering Consulting Services on an As-Needed Basis**. LH&J and previous firms have been providing quality engineering and architectural services for over 60 years and to Jefferson Parish since 1991. As the design engineering consultant for a number of previous Jefferson Parish projects, LH&J is well postured to provide Jefferson Parish with a team of highly experienced and extremely capable engineers, land surveyors, and other design professionals who are intimately familiar with the critical design and construction considerations that are unique to **Coastal Engineering Projects**. Our past similar experience throughout Southeast Louisiana gives us the knowledge and understanding of the needs for these types of projects. This along with our extensive experience in Coastal Engineering design and land surveying puts LH&J in the unique position of being able to dive straight into any assigned projects without a learning curve.

In response to this Request for Qualifications to perform Engineering and related services on an as needed, Task Order basis for Coastal Engineering Projects, we have assembled a team of sub-consultants to provide Jefferson Parish with proven capability in performing all services identified in the solicitation. The assembled Team allows us to be both responsive and efficient in performing task orders assigned by Jefferson Parish. For each Task Order assigned to us, LH&J will select the sub-consultants to assist us based upon the type and location of the work as well as the past experience

## TEC Professional Services Questionnaire

and current workload of the Team member. Using our Team resources, LH&J will provide Jefferson Parish with the most experienced, efficient, and effective team suited for the requirements of each individual task order.

Together, our Team provides expertise and experience in all of the required disciplines and tasks associated with this solicitation, and more importantly, we provide relevant experience working with Jefferson Parish. The following text describes our team member firms.



### **Prime Contractor: Linfield, Hunter & Junius, Inc.**

LH&J has provided quality engineering, surveying and architectural services for over 50 years, including work for Jefferson Parish for over 27 years.

We have assembled a team of sub-consultants to provide Jefferson Parish with proven capability in performing all services identified in the solicitation. The assembled Team allows us to be both responsive and efficient in performing task orders in accordance with Jefferson Parish requirements for any geographically defined region that may be assigned to us. For each Task Order assigned to us, LH&J will select the sub-consultants to assist us based upon the type and location of the work as well as the past experience and current workload of the Team member. Using our Team resources, LH&J will provide Jefferson Parish with the most experienced, efficient, and effective team suited for the requirements of each individual task order.

As prime contractor, LH&J has successfully completed thousands of projects for clients such as the Orleans Levee District, the USACE, Port of New Orleans, City of New Orleans, Jefferson Parish, Sewerage and Water Board of New Orleans, Plaquemines Parish Government, and many others. As the managing partner for New Orleans Small Business Engineering, A Joint Venture, L.L.C., (NOSBE), LH&J recently successfully performed the program and contract management, as well as much of the technical engineering design and construction management services, for the USACE 5 year, \$90 million IDIQ Contract No. W912P8-07-D-0059.

**For this contract, LH&J will self-perform Contract, Program and Project Management as the prime professional, as well as Professional Coastal, Civil and Structural Engineering, Bathymetric and Topographic Surveying, Construction Administration and all Quality Control services.**

### **LH&J at a Glance**

- Small business, as defined by the NAICS Code 541330
- 4 offices, including 2 in southern Louisiana

### **LH&J's Role as Prime Contractor includes:**

- Program management
  - Primary Jefferson Parish point-of-contact/issue resolution/performance/quality/customer satisfaction
  - Accountable for team's performance (program and task level)
  - Integrate overall program standards and procedures
  - Manage team members
- Program Quality Control
  - Implement program QA/QC procedures
  - Conduct team member and subcontractor performance audits
- Jefferson Parish Customer Satisfaction
  - Implement customer satisfaction plan
- Task Order Management,
  - Implementation, technical support, and deliverables
  - Evaluate team assets to provide best value proposal to the Jefferson Parish on each task
  - Assign and manage task orders; ensure QC and product delivery schedule



**Subcontractor: ELOS Environmental, L.L.C. (ELOS)**

ELOS Environmental, LLC (ELOS) is certified in Louisiana as a Small and Emerging Business Enterprise (SEBD) under the Hudson Initiative (Cert. #11198). ELOS environmental professionals provide data-supported analysis to federal, state, and local agencies along with private clients in order to secure environmental clearances, permits, and authorizations as required by the National Environmental Policy Act (NEPA), Sections 404 and 401 of the Clean Water Act, Section 10 of the Rivers and Harbor Act, and Section 14 of the Rivers and Harbor Act as codified in 33 USC 408 (Section 408) for modifications to federal projects, and Section 106 of the National Historic Preservation Act.

**ELOS at a Glance**

- Certified Small Business
- High level of experience and expertise with Jefferson Parish regulatory and environmental considerations.
- Main office in Hammond, LA
- 19 total staff all domiciled in Louisiana

ELOS is expert in regulatory affairs related to environmental permitting and compliance. In addition to the above-listed permits, they have been providing the following products to our clients for over 10 years:

- Wetlands assessments, delineations, and findings reports (for NEPA compliance)
- Requests for Wetlands Jurisdictional Determinations (JD)
- Wetlands restoration design, implementation, and monitoring
- Phase I Environmental Site Assessment (ESA) for hazardous, toxic, and radioactive waste (HTRW) evaluations
- Cultural resource, threatened and endangered (T&E), essential fish habitat (EFH), migratory bird, and other surveys
- Environmental monitoring (seismic and other oil field related activities)
- GIS mapping for other environmental impact analysis

**ELOS Environmental provides the LH&J Team with an extensive background in Jefferson Parish Regulatory and Environmental Regulations and Wetland Creation and will assist our Team with all Environmental Permitting and Regulatory activities.**



**Subcontractor: Eustis Engineering, L.L.C. (Eustis)**

Eustis has been the premier geotechnical engineering consultant in southeast Louisiana since 1946. They are a long time provider of professional geotechnical engineering services in the New Orleans region and no other local or regional geotechnical engineering firm exceeds Eustis's qualifications. Eustis has an extensive level of demonstrated experience and expertise that is necessary to properly design Coastal Projects. They are highly skilled and adept at performing the complex analyses that formulate the basis of a sound design. Eustis has provided the geotechnical services listed in the Solicitation directly to LH&J on numerous projects in the past such as the East of Harvey Canal Floodwall, the 17<sup>th</sup> Street Canal Breach Repairs and Closure Structure, LPV 105, LPV 106, LPV 107, LPV 109.02c, the entire \$200 million Orleans Storm Proofing Program, the NOV-NF-W-04 Levee & Floodwalls and France Road reconstruction and floodgate to name a few.

**Eustis at a Glance**

- Main office in Metairie, LA
- Extensive background in the Geology and Geotechnical considerations throughout Jefferson Parish
- 77 total staff all domiciled in Louisiana

The staffs of professionals at LH&J and Eustis have a long and extensive history of working together

## TEC Professional Services Questionnaire

on major coastal engineering projects and are highly accustomed to working together to solve geotechnical related challenges in a timely, efficient and cost effective manner. Eustis has extensive materials testing staff and facilities, both field and office, and their laboratory is validated by the USACE Materials Testing Center in Vicksburg, MS and is also accredited by AASHTO and ASTM.

### **Eustis will provide Geotechnical Investigations, Laboratory Testing, Evaluations and Geotechnical Design Recommendations for the LH&J Team.**

LH&J will provide all in-house expertise and personnel for Coastal Engineering, Civil Engineering, Structural Engineering, Land Surveying and Bathymetric Surveying. Team members ELOS Environmental, LLC and Eustis Engineering Services, LLC will provide other sub-consultant specialty services. Our Team exceeds all the experience and technical qualifications required in this RFP. The professional TEAM selected was chosen because it represents **The Most Qualified** in their respective fields of expertise and because of the extensive collective experience working on Coastal Engineering projects.

The LH&J Team offers Jefferson Parish a very compact team of local professionals with specialized experience specific to the scope of work required by this solicitation. With all of the work being performed at the offices of LH&J and our subconsultants locally, and with our past experience working together on similar projects, we believe that there will be seamless coordination and interaction between team members. Furthermore, LH&J's in-house land surveyors will be prioritized to this project to ensure that field survey data is rapidly obtained and furnished to our design team. Also, during design, any requirements to obtain supplemental data as the project progresses will be quickly addressed to avoid delays.

#### **Major continuing repeat public clients include:**

- ✓ *Jefferson Parish since 1991 (31 years)*
- ✓ *The Port of New Orleans since 1971 (51 years)*
- ✓ *U.S. Army Corps of Engineers since 1973 (49 years)*
- ✓ *Plaquemines Parish Government since 1973 (49 years)*
- ✓ *City of New Orleans since 1974 (48 years)*
- ✓ *U.S. Navy, Southern Division since 1975 (47 years)*
- ✓ *Sewerage & Water Board of New Orleans since 1979 (43 years)*

### **A. MINIMUM REQUIREMENTS FOR SELECTION**

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

1. The persons or firms under consideration shall have at least one (1) principal who is a licensed, registered architect or a professional engineer in the State of Louisiana.

**Nathan J. Junius, P.E., P.L.S. has over 20 years of design experience in Civil Engineering projects including major Coastal Engineering projects that are identified elsewhere in this submittal. He is a Principle of the firm and has been continuously registered as a Professional Engineer in the State of Louisiana since 2005.**

2. The persons or firms under consideration shall have a professional in charge of the Project who is a licensed, registered engineer or architect in the State of Louisiana with a minimum of five (5) years of experience.

**Anthony F. Goodgion, P.E. has over 39 years of design experience in Civil Engineering projects including major Coastal Engineering projects that are identified elsewhere in this submittal. He is a Principle of the firm and has been continuously registered as a Professional Engineer in the State of Louisiana since 1991.**

## TEC Professional Services Questionnaire

3. The persons or firms under consideration shall have one (1) employee who is a licensed, registered architect or professional engineer in the State of Louisiana in the applicable discipline involved. A subcontractor may meet this requirement only if the advertised Project involves more than one discipline.

**Linfield, Hunter & Junius, Inc. (LH&J) has eleven (11) full-time professional engineers registered in the State of Louisiana with over 360 years of combined experience in Coastal and Civil Engineering. LH&J will make available as many as five (5) professional engineers for this project.**

**Nathan J. Junius, P.E., P.L.S. is a Professional Land Surveyor registered in Louisiana with more than twenty (20) years of experience in conducting topographic and bathymetric surveys. William J. Muller, P.L.S. is a Professional Land Surveyor registered in Louisiana with more than thirty (30) years of experience in conducting topographic and bathymetric surveys.**

### **B. EVALUATION CRITERIA**

#### **B.1 Professional Training and Experience**

LH&J has been both designing and providing construction management services to assist Jefferson Parish with the development of Community Enhancement projects for more than 27 years. Our past experience with Jefferson Parish Public Works projects include designing improvements to the Potable Water Distribution System, the Sanitary Sewerage Collection and Treatment Systems, the Major Canals and Sub-surface Drainage Systems, and the Roadway and Transportation Systems, as well as other Community Enhancement and Beautification type projects. The Linfield, Hunter & Junius Team offers Jefferson Parish a strong, diverse and proven engineering and surveying firm coupled with a premier Southeast Louisiana environmental compliance, permitting and monitoring firm. Their combined technical, engineering and environmental capabilities are more than adequate to address any type of Coastal Engineering assignment.

The strong capabilities, experience and expertise of LH&J and our Team members are demonstrated through the resumes provided in Section K and project examples provided in Section K of the TEC Professional Services Questionnaire that is being submitted for each Team member.

This documentation clearly and conclusively demonstrates that LH&J and our Team members have proven prior successful experience with planning, designing and constructing Coastal Engineering projects. Table 1 on the following page summarizes the evaluation criteria from the Public Notice and indicates which projects demonstrate the various types of specialized experience and expertise.

**TEC Professional Services Questionnaire**

Specialized Experience	LH&J Project Nos.										ELOS Project Nos.									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Coastal Planning	✓	✓	✓	✓	✓	✓		✓	✓	✓			✓		✓		✓		✓	
Permitting	✓	✓	✓	✓	✓	✓		✓				✓		✓	✓	✓				
Design	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓		✓					
Marsh and Ridge Restoration	✓	✓							✓	✓			✓		✓		✓		✓	
Shoreline Stabilization & Protection	✓	✓		✓	✓	✓		✓		✓			✓		✓		✓		✓	
Beneficial Use of Dredge Material	✓	✓			✓				✓						✓		✓		✓	
Living Shoreline Design	✓	✓			✓								✓							
Hydrologic and Hydraulic Modeling	✓	✓				✓		✓					✓							
Biological and Environmental Assessment of Wetlands	✓	✓									✓	✓	✓	✓	✓	✓		✓	✓	
Design Analysis and Reports	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓			
Technical Evaluations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	
Cost Estimates	✓	✓	✓	✓	✓	✓	✓	✓						✓			✓			
Field Investigations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Coastal Grant Writing								✓												
Outreach and Educational Support				✓																

**Table 1 – Specialized Experience and Expertise**

## TEC Professional Services Questionnaire

ELOS Environmental is well known throughout Southeast Louisiana. As demonstrated in their individual TEC Professional Services Questionnaire, they have assisted local Parishes with a significant amount of coastal restoration, mitigation, environmental and permitting efforts. These prior, as well as ongoing, efforts will help ensure that the projects assigned to our Team will be seamlessly integrated into the Parish's long term strategies and objectives.

No other Geotechnical Engineering firm has more experience and expertise in the geological and geotechnical considerations that are unique to Southeast Louisiana than Eustis Engineering. In addition, Eustis and LH&J have a long and extensive history of collaborating together on all types of projects throughout the region. Our strong working relationships have identified many successful and cost effective solutions to the unique foundation challenges that we are faced with in our region.

A summary of Linfield, Hunter & Junius, Inc.'s professional training and experience in the areas of Coastal Engineering includes:

- ✓ Professional staff with well over 350 cumulative years of experience in engineering planning, design and construction (see Items K and L).
- ✓ Firm background of over 27 years providing successful project studies and designs to Jefferson Parish.
- ✓ A proven track record of completed Coastal Engineering projects from feasibility studies following through to completed construction.
- ✓ Recent completion of successful Coastal Engineering projects which are similar to the scope of work of your current project.
- ✓ A working knowledge of state-of-the-art computerized methods and procedures for studies and design.

Linfield, Hunter & Junius, Inc. (LH&J) employs **two full time Registered Professional Land Surveyors** and maintains **four fully staffed survey field crews** who are equipped with modern vehicles and state of the art survey equipment for both conventional and GPS surveying. Our crews have worked in difficult terrain conditions, including coastal marshes, and are equipped for and experienced at performing topographic, boundary, topographic bathymetric, right-of-way, control, and hydrographic surveys as well as performing bench leveling, construction layout surveys and settlement monitoring surveys. Our CADD Drafters are highly experienced in working with both Bentley MicroStation and Autodesk AutoCAD as required. LH&J also utilizes add in modules such as ArcView, Civilsoft and InRoads to enhance the efficiency of data processing and project deliverables. We are competent at working with any vertical and horizontal datum as specified by the Client's requirements. We utilize computer based survey data processing software to achieve maximum efficiency and ensure rapid and reliable deliverables for our Clients. Since placing an increased emphasis on land surveying services, the firm has completed over \$1,000,000 in land surveys for in-house designs and others.



## TEC Professional Services Questionnaire

### **Public**

- Jefferson Parish Department of Public Works
- LA Department of Transportation and Development
- Audubon Park, New Orleans
- U.S. Army Corps of Engineers
- City of New Orleans Department of Public Works
- Sewerage and Water Board of New Orleans
- Plaquemines Parish Government
- Pontchartrain Levee District
- St. Tammany School Board
- City of Hammond
- Tangipahoa Parish
- City of Baton Rouge
- University of New Orleans

### **Private**

- CVS/Pharmacies – hundreds
- Dillard University
- Tulane University
- Children’s Hospital
- Woodward Design+Build
- Friends of City Park, New Orleans, LA
- Dollar General Stores – over 50
- Exxon/Mobile Corporation
- New Orleans Park-N-Fly
- Multiple design consultants statewide

### **Registered Surveyors**

Nathan J. Junius, P.E., P.L.S.

BSCE, MSCE

20 years experience

William J. Muller, P.L.S.

30 + years experience

Nathan J. Junius, P.E., P.L.S. is a licensed surveyor and heads up Linfield, Hunter & Junius, Inc. surveying. In addition to extensive experience as a civil engineer, Mr. Junius has extensive experience in all aspects of land surveying.

After Graduating in May of 2001, Junius attended the University of Texas at Austin where he graduated with a MS degree in Civil Engineering in August of 2002. During his time at the University of Texas, Junius became familiar with ESRI’s ArcView GIS and its many applications. Surface modeling, raster technology, networks, features, and geodatabases were a few of the tools used in modeling systems. A project that Junius worked on was incorporating GIS through geodatabases to help improve fishing success in Plaquemines and St. Bernard Parishes.

William J. Muller, P.L.S. has extensive experience in all aspects of land surveying throughout Louisiana. He worked in the offshore industry spotting well locations, run field crews for numerous Louisiana Power and Light topographic and boundary surveys, analyzed thousands of boundary surveys, and supervised multiple field crews, draftsmen and land surveys.

Examination of the attached resumes project descriptions in Items K and L demonstrates that the firm has the professional training and experience to provide complete land surveying services.

### **B.2 Size of Firm**

Linfield, Hunter & Junius, Inc. employs thirty-seven (37) individuals, as shown in Item E above. The size of our firm is ideal for projects such as the proposed project because:

- ✓ The firm is large enough that it can rapidly absorb projects of the size of the proposed project and not become overburdened by them.
- ✓ The firm is small enough to be nimble and responsive to the clients.
- ✓ The management structure is not multi-layered, which facilitates resolution of issues that could otherwise slow down a project.

## TEC Professional Services Questionnaire

### **B.3 Capacity for Timely Completion of Work**

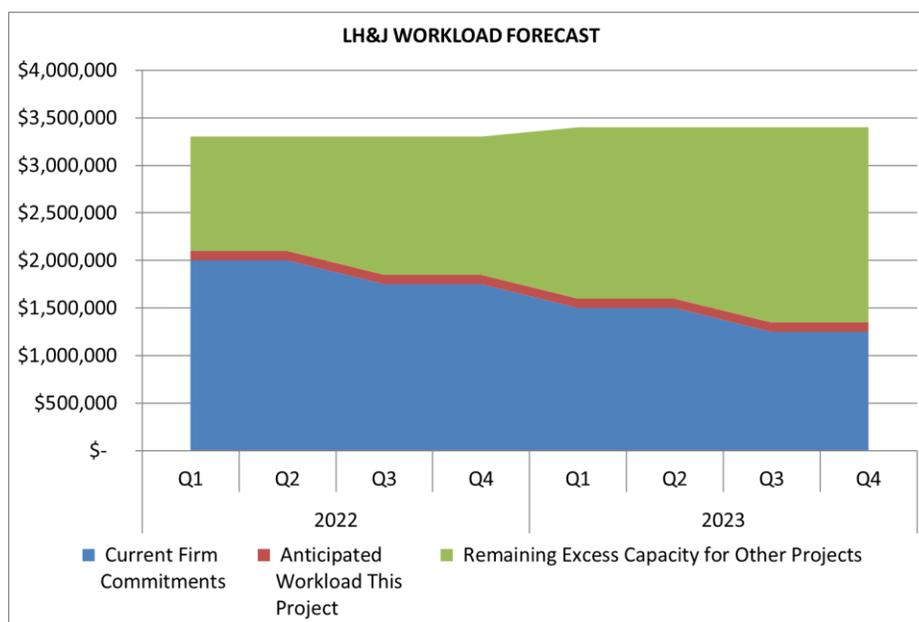
Linfield, Hunter & Junius, Inc. has a long demonstrated history of providing successful professional services to the Jefferson Parish Government. We are very familiar with the Parish's departmental functions, governmental personnel and the unique cultural considerations of its citizens. We have assisted the Parish with the implementation of important public works construction projects throughout Jefferson Parish.

We and our sub-consultants are quite familiar with the requirements for projects funded by Federal sources, such as the Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012 ("RESTORE Act") and the Gulf of Mexico Energy Security Act ("GOMESA Act) and we understand its focus on Ecosystem Restoration and the importance of consistency with the State's Coastal Master Plan and coordination with Louisiana's CPRA. Through our prior experience designing the Grand Bayou Vegetative Ridge Restoration project we have become knowledgeable in the physical and biological parameters that come into play with these unique Coastal Restoration projects.

We understand the hydrodynamic, geotechnical, constructability, cost and flora and fauna considerations that must be evaluated and accounted for in the design process. In conjunction with Team member Eustis Engineering, LH&J has developed a unique approach to estimate the magnitude of short term consolidation that will occur during construction so that a suitable allowance can be made in the construction cost estimates we prepared. We also evaluated the potential for intermediate and long term settlements to provide recommendations on overbuilding to maximize the long term benefits of the Ridge Restoration.

The designs of several large projects have been recently completed or are near completion. Therefore, we have a significant engineering team available to rapidly respond to the requirements of this "As-Needed" contract. This project can be easily absorbed by the firm, as we have substantial reserve production capacity to meet any reasonable project scheduling.

Our current and projected firm capacity shown below indicates that this contract can be easily absorbed by our current staffing and no additional personnel are anticipated to be needed for the duration of this "As-needed" contract. The additional workload anticipated for this project would be very welcome and needed to maintain our current staff levels.



## TEC Professional Services Questionnaire

Fast turnaround time is an excellent indication of our ability to respond to the needs of our clients.

**Linfield, Hunter & Junius, Inc. has a well-deserved reputation for completing public projects on time; in fact, our firm often completes designs awarded to several firms at the same time before other firms' designs have been completed. Recent examples of our fast turnaround include:**

- **17<sup>th</sup> Street Canal Widening – Hoey's Canal to Airline Drive**

The schedule for this project was accelerated to accommodate aggressive grant funding deadlines. Linfield, Hunter & Junius, Inc. completed design sufficiently ahead of schedule such that the project was bid and construction begun several weeks before the grant deadline date for construction.

- **Hoey's Canal Bypass**

Linfield, Hunter & Junius, Inc. completed design of the first phase of this project ahead of schedule to meet aggressive grant funding deadlines.

- **Alcee Fortier/Pressburg Streets**

This project was designed by Linfield, Hunter & Junius, Inc. and constructed ahead of similarly-sized projects awarded to other firms at the same time.

- **Earhart Boulevard**

Five firms were awarded similarly-sized parts of this project; Linfield, Hunter & Junius, Inc. received the last of these awards yet completed its design first.

- **Leon C. Simon and Gentilly Road Bridges**

Of the eight bridge projects awarded to various firms, Linfield, Hunter & Junius, Inc.'s two bridge projects were the first designs completed, and construction of these bridges was completed first.

- **Hollygrove Area Drainage Project**

This may be the largest single SELA drainage project. The design was completed on time under a very aggressive schedule and the firm was given the **USACE's highest rating of "EXCELLENT" including an "OUTSTANDING" rating** for the "Management and Adherence to Schedules" category. Construction is complete.

- **17<sup>th</sup> St. Canal Levee Breach Repairs, Interim Closure Structure, and Interim Pumping System**

This was among the most visible and important public projects in New Orleans and Jefferson Parish subsequent to Hurricane Katrina. The design was completed under a very aggressive fast track schedule while the firm reestablished operations and restored its flooded offices in Metairie. More than \$200 Million dollars of improvements were designed within one year. Gates and temporary drainage pumps were in place and operational in time for the 2006 hurricane season less than one year after Hurricane Katrina. The Corps of Engineers issued a **Certificate of Appreciation to the firm for Outstanding Service** in providing engineering support in Southeast Louisiana subsequent to Hurricane Katrina. **The firm received a National Honor Award in 2009** from the American Council of Engineering Companies for design of the 17<sup>th</sup> St. Canal Interim Closure Structure.

#### B.4 Past Performance

To date LH&J has received the following engineering assignments from Jefferson Parish:

- ✓ N. Hullen and Veterans Force Main Extension – COMPLETED
- ✓ Canal Street Improvements – COMPLETED
- ✓ Widening and Deepening of the 17th Street Canal – COMPLETED
- ✓ Hoey’s Canal Drainage Improvements (Phase II and III) – Phase III-a - COMPLETED
- ✓ Hoey’s Canal Drainage Improvements (Phase II and III) – Phase III-b - COMPLETED
- ✓ Hoey’s Canal Drainage Improvements (Phase II and III) – Phase III-c – IN DESIGN
- ✓ Hoey’s Bypass Canal – Phase I - COMPLETED
- ✓ Hoey’s Bypass Canal – Phase II - COMPLETED
- ✓ Livingston Place East and West Drainage Improvements - COMPLETED
- ✓ Cuddihy Drive and Woodvine Avenue Drainage Improvements – COMPLETED
- ✓ Geisenheimer Basin Drainage Study - COMPLETED
- ✓ Russell Street Drainage Improvements - COMPLETED
- ✓ Geisenheimer Canal Improvements - COMPLETED
- ✓ Dakin St. Pump Station – COMPLETED

We have had repeat assignments from all of our public sector clients demonstrating our capabilities to perform at a high level, regardless of the project scope. To the best of our knowledge, **all public projects have been completed within the allotted design time and to the clients’ satisfaction.** Fast turnaround time is an excellent indication of our ability to respond to the needs of our clients; **quality is attested to by the number of repeat public clients we have.** Throughout Linfield, Hunter & Junius, Inc.’s history we have maintained an excellent working relationship with each public client. This is a significant accomplishment of which we are very proud.

#### Major continuing repeat public clients include:

- ✓ Jefferson Parish since 1991 (31 years)
- ✓ The Port of New Orleans since 1971 (51 years)
- ✓ U.S. Army Corps of Engineers since 1973 (49 years)
- ✓ Plaquemines Parish Government since 1973 (49 years)
- ✓ City of New Orleans since 1974 (48 years)
- ✓ U.S. Navy, Southern Division since 1975 (47 years)
- ✓ Sewerage & Water Board of New Orleans since 1979 (43 years)
- ✓ Tangipahoa Parish since 2006 (16 years)

Below is a sampling of awards and commendations our projects have received:

- The New Orleans District of the Corps of Engineers gave Linfield, Hunter & Junius, Inc. a rating of **“Excellent”** for the \$38 million Hollygrove Area Drainage Improvements project (see attached rating).
- The Vicksburg District of the Corps of Engineers recently formally rated the firm’s performance as **“Highly Recommended”**.
- A City of New Orleans department director recently told us (and others) that **Linfield, Hunter & Junius, Inc. should be used as the example for other consulting engineering firms to emulate.**
- The Board of Commissioners of the Port of New Orleans recently commended the firm’s **“outstanding professional services”** in an emergency situation, which allowed the board “to receive bids and award a construction contract in record time” (see attached letters of recommendation).

## TEC Professional Services Questionnaire

- The Corps of Engineers issued a **Certificate of Appreciation to the firm for Outstanding Service** in providing engineering support in Southeast Louisiana subsequent to Hurricane Katrina (see attached letter and Certificate of Appreciation).
- The firm received a **National Honor Award** from the American Council of Engineering Companies for design of the 17th St. Canal Interim Closure Structure in 2009.
- The firm received an **Award of Excellence** for the Harvey Floodwall Project in 2009.
- The **New Orleans Business Round Table commended the firm** for the Reconstruction of Tidewater Road in 2009;
- **ACI awarded an Engineering Excellence Award** to the firm for design of the Metairie Road Bridge Project in 2000.

### **B.5 Location of Principal Office Where Work Will Be Performed**

Linfield, Hunter & Junius, Inc. is located in Jefferson Parish at **3608 18<sup>th</sup> Street, Metairie, LA 70002**. We are centrally located in the parish, and all work will be performed from this office.



### **B.6 Status of Current Litigation with Jefferson Parish**

Linfield, Hunter & Junius, Inc. has no previous or on-going litigation with Jefferson Parish.

### **B.7 Prior Successful Completion of Projects of the Type and Nature of the Engineering Services**

Linfield, Hunter & Junius, Inc. has a staff of engineers with significant experience providing the professional services required for this solicitation. **Examination of the Resumes in Item K and the Project Descriptions in Item L demonstrates the extensive experience of our staff** in providing the services required for this solicitation. Our team has a proven track record of completed major projects from feasibility studies following through to completed construction for Jefferson Parish, and has recently completed a number of successful projects.

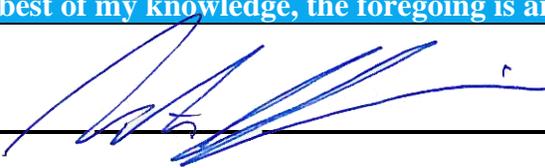
## Closing Statement

In summary, we feel that the LH&J Team provides the following benefits to the Jefferson Parish Government.

- LH&J has a proven track record of providing high quality professional engineering services on time for numerous projects for the Jefferson Parish Government.
- LH&J meets all RFQ requirements and possesses the proven production capacity of a much larger firm.
- LH&J has selected four of the most highly qualified firms to demonstrate capability and specialized expertise for all of the required services defined in the RFQ plus provides the depth of capacity in all of the necessary disciplines and specialties. With these subcontractors the LH&J team exceeds all RFQ criteria.
- The LH&J Team is composed of a Prime Firm, with demonstrated ability to perform work at an accelerated pace, which is supplemented by a group of competent and qualified subcontractors that provide specialized expertise, local knowledge and additional depth of resources.
- The LH&J Team demonstrates they have the necessary personnel and resources already in place to immediately commence performing work under this contract at a very rapid pace. We do not need time to "Ramp Up".
- LH&J Team member firms are located within the New Orleans Region and have strong local knowledge of the cultural, geographical and geological considerations throughout the entire region.
- LH&J Team members have an extensive resume for providing services similar to those required in this solicitation throughout the New Orleans Region.
- Proven track record of delivering work on or ahead of schedule, even in the most demanding situations, i.e., post-Katrina and Rita recovery A-E service task orders.

We respectfully request the Jefferson Parish Government to award us this opportunity to significantly contribute to this important effort to enhance and restore Louisiana's critical coast.

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

Signature: 

Printed Name: Nathan J. Junius, P.E., P.L.S.

Title: President

Date: August 12, 2022

### PERFORMANCE EVALUATION (ARCHITECT-ENGINEER)

A-E CONTRACTOR I.D. NUMBER  
(For ACASS use only) 101230

1. A-E CONTRACT NUMBER  
DACW29-97-C-0048

2. CONSTRUCTION CONTRACT NUMBER

IMPORTANT: Be sure to complete Performance section on reverse. If additional space is necessary for any item, use Remarks section on reverse.

3. TYPE OF EVALUATION			4. PROJECT NUMBER	5. DELIVERY ORDER NUMBER(S) (if applicable)
3a. PHASE OF COMPLETION	3b. COMPLETION (Check one)	3c. CHECK IF APPLICABLE		
<input checked="" type="checkbox"/> INTERIM (84) <input type="checkbox"/> FINAL	<input checked="" type="checkbox"/> DESIGN <input type="checkbox"/> ENGINEERING SERVICES <input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> TERM. (Explain in REMARKS on reverse)		

6. NAME AND ADDRESS OF A-E CONTRACTOR	7a. PROJECT TITLE AND LOCATION
Linfield, Hunter & Junius, Inc. 3500 N. Causeway Blvd., Suite 200 Metairie, LA 70002	Southeast Louisiana Project New Orleans, LA
<b>DUTY STATE CONTRACT</b>	7b. DESCRIPTION OF PROJECT IF NOT EXPLAINED BY TITLE
	Hollygrove Area Drainage Project

8. NAME, ADDRESS AND PHONE NUMBER OF OFFICE RESPONSIBLE FOR:	
8a. SELECTION OF A-E CONTRACTOR	8b. NEGOTIATION/AWARD OF A-E CONTRACT
Engineering Division New Orleans District New Orleans, LA (504) 862-2623	Elois Evans CEMVN-CT-T
8c. ADMINISTRATION OF A-E CONTRACT	8d. ADMINISTRATION OF CONSTRUCTION CONTRACT
Gary L. Hawkins CEMVN-ED-SR	

9. A-E CONTRACT DATA <small>(Items 9d thru 9g are not applicable during construction unless there are modifications to the A-E contract) -- "See Instructions"</small>			
9a. TYPE OF WORK PERFORMED BY A-E (DESIGN, STUDY, ETC.)	9b. TYPE OF A-E CONTRACT		
Design	<input checked="" type="checkbox"/> FIRM FIXED-PRICE <input type="checkbox"/> INDEFINITE DELIVERY/INDEFINITE QUANTITY <input type="checkbox"/> COST-REIMBURSEMENT <input type="checkbox"/> OTHER (Specify)		
9c. PROJECT COMPLEXITY	9d. PROFESSIONAL SERVICES CONTRACT		
<input type="checkbox"/> DIFFICULT <input checked="" type="checkbox"/> ROUTINE	INITIAL A-E FEE	A-E CONTRACT MODIFICATIONS	TOTAL A-E FEE
	\$2,000,000.00	NO.    AMOUNT 8    \$518,350.00	\$2,518,350.00
9e. A-E CONTRACT AWARD DATE	9f. NEGOTIATED A-E CONTRACT COMPLETION DATE (OR NUMBER OF DAYS) (including extensions)	9g. ACTUAL A-E CONTRACT COMPLETION DATE (OR NUMBER OF DAYS)	
6 May 97	19 Feb 02	19 Feb 02	
9e1. DELIVERY ORDER AWARD DATE	9f1. COMPLETION DATE	9f2. NUMBER OF DAYS	9g1. COMPLETION DATE    9g2. NUMBER OF DAYS

10. CONSTRUCTION CONTRACT DATA <small>(Not applicable at completion of design or engineering services not involving construction)</small>			
10a. CONSTRUCTION COSTS	10a(1). AUTHORIZED CONSTRUCTION COST	10a(2). A-E ESTIMATE FOR BID ITEMS AWARDED	10a(3). AWARD AMOUNT
	\$	\$	\$
10b. DATA AT TIME OF CONSTRUCTION COMPLETION (Completion date)	NUMBER		TOTAL COST
10b(1). CONSTRUCTION MODIFICATIONS			\$
10b(2). CONSTRUCTION MODIFICATIONS ARISING FROM DESIGN DEFICIENCIES			\$

11. A-E LIABILITY     NONE     UNDETERMINED     PENDING \$     SETTLEMENT \$

12. OVERALL RATING     EXCELLENT     ABOVE AVERAGE     AVERAGE     BELOW AVERAGE     POOR

13. RECOMMENDED FOR FUTURE CONTRACTS?     YES     CONDITIONALLY     NO (Explain no or conditional in REMARKS on reverse)

14a. NAME, TITLE AND OFFICE OF RATING OFFICIAL	15a. NAME, TITLE AND OFFICE OF REVIEWING OFFICIAL
GARY L. HAWKINS Contracting Officer's Representative PHONE NUMBER (504) 862-2077	GERARD S. SATTERLEE, JR. Chief, Engineering Division PHONE NUMBER (504) 862-2240
14b. SIGNATURE	15b. SIGNATURE
<i>Gary L. Hawkins</i>	<i>Gerard S. Satterlee</i>
14c. DATE	15c. DATE (Official Report Date)
11/12/99	11/15/99

AGENCY USE (Distribution, etc.)

## FOR OFFICIAL USE ONLY

6.

**QUALITY OF A-E SERVICES BY DISCIPLINE**

(Completion mandatory for both DESIGN and CONSTRUCTION phases evaluations and Engineering Services Evaluations)

6a. DISCIPLINES (if applicable)	DESIGN/SERVICES			CONSTRUCTION			16b. DISCIPLINE, NAME AND ADDRESS OF KEY CONSULTANT(S) (if applicable)
	OUT- STANDING	SATIS- FACTORY	UNSATIS- FACTORY	OUT- STANDING	SATIS- FACTORY	UNSATIS- FACTORY	
ARCHITECTURAL	X						
STRUCTURAL	X						
CIVIL	X						
MECHANICAL	X						
ELECTRICAL	X						
FIRE PROTECTION	N/A						
SURVEY AND MAPPING	X						
COST ESTIMATING		X					
VALUE ENGINEERING		X					
ENVIRONMENTAL ENGINEERING	N/A						
GEOTECHNICAL ENGINEERING	X						
MASTER PLANNING	N/A						
HYDROLOGY	N/A						
CHEMICAL ENGINEERING	N/A						
GEOLOGY	N/A						

17. **DESIGN PHASE OR ENGINEERING SERVICES:**  
(Quality of A-E Services Evaluation)

ATTRIBUTES	N/A	OUT- STANDING	SATIS- FACTORY	UNSATIS- FACTORY
THOROUGHNESS OF SITE INVESTIGATION		X		
QUALITY CONTROL PROCEDURES AND EXECUTION		X		
PLANS/SPECS ACCURATE AND COORDINATED		X		
PLANS CLEAR AND DETAILED SUFFICIENTLY		X		
MANAGEMENT AND ADHERENCE TO SCHEDULES		X		
MEETING COST LIMITATIONS		X		
SUITABILITY OF DESIGN OR STUDY RESULTS		X		
SOLUTION ENVIRONMENTALLY SUITABLE		X		
COOPERATIVENESS AND RESPONSIVENESS		X		
QUALITY OF BRIEFING AND PRESENTATIONS		X		

18. HOW MANY 100% FINAL RESUBMITTALS WERE REQUIRED BECAUSE OF POOR A-E PERFORMANCE? \_\_\_\_\_

19. **CONSTRUCTION PHASE:**  
(Quality of A-E Services Evaluation)

ATTRIBUTES	N/A	OUT- STANDING	SATIS- FACTORY	UNSATIS- FACTORY
PLANS CLEAR AND DETAILED SUFFICIENTLY				
DRAWINGS REFLECT TRUE CONDITIONS				
PLANS/SPECS ACCURATE AND COORDINATED				
DESIGN CONSTRUCTIBILITY				
COOPERATIVENESS AND RESPONSIVENESS				
TIMELINESS AND QUALITY OF PROCESSING SUBMITTALS				
PRODUCT AND EQUIPMENT SELECTIONS READILY AVAILABLE				
TIMELINESS OF ANSWERS TO DESIGN QUESTIONS				
FIELD CONSULTATION AND INVESTIGATIONS				
QUALITY OF CONSTRUCTION SUPPORT SERVICES				

20. REMARKS (Attach additional Sheet(s) or Documentation if necessary)

Concerning Value Engineering, the AE has not provided cost saving recommendations relative to design or construction costs that would justify an outstanding rating. Concerning Cost Estimating, the AE's cost estimates are conservative in some areas and as a result do not warrant an outstanding rating.



August 13, 2007

Mr. Ralph Junius  
Linfield, Hunter & Junius, Inc.  
3608 18<sup>th</sup> Street, Suite 200  
Metairie, Louisiana 70002

Dear Mr. Junius:

This is to express to you and your staff that it has been a pleasure to work with Mr. Tom Knight and Mr. Mark Annino on recent projects at the Port of New Orleans. Whether it has been a complicated repair of a wind or fire damage, or preliminary engineering for a potential major project, your senior engineers have provided outstanding service to us.

Both of these engineers not only excel in their civil engineering expertise and technical knowledge, but exhibit an aptitude for truly listening to the client and providing what is needed, the way it is needed, and when it is needed. Their responses are prompt and their deliverables are accurate, useful, and exceed our expectations.

I'm sure there are others in your firm that support the work assignments of Mark and Tom, so please share accolades and thanks to them, as well. It is truly refreshing to work with the LHJ team. Port staff has the utmost confidence in the engineering assignments performed and the quality of the work provided.

Thanks for finding time to accommodate us when we have an urgent task, as we are sure that your staff is already quite busy. Keep up the good work. We truly enjoy our working relationship with LHJ.

Sincerely,

Deborah D. Keller, P.E.  
Director, Port Development Division

DDK:jeg

cc: Mr. Mark Annino  
Mr. Tom Knight  
O:\WPENG\Letter to LHJ.wpd



February 8, 1999

Linfield, Hunter and Junius, Inc.  
3500 North Causeway Boulevard, Suite 200  
Metairie, Louisiana 70002  
Attention: Mr. Ralph Junius

**RE: PROFESSIONAL SERVICES PROVIDED  
AT NASHVILLE AVENUE TERMINAL**

Dear Mr. Junius:

I wanted to commend you and your staff of engineers for the outstanding professional services provided to the Port of New Orleans in the aftermath of a major vessel allision at our Nashville Avenue Terminal.

Your team responded to our request for services immediately and was instrumental in assessing the extent of the damages. Plans and specification were prepared expeditiously so that we could receive bids and award a construction contract in record time.

Throughout construction your staff was available for consultation with the Board's engineering team and the contractor. Submittals were thoroughly yet quickly reviewed by your engineers.

The Nashville Avenue Terminal is one of our busiest facilities and contains the only Port of New Orleans wharves on the Mississippi with multipurpose gantry cranes. It was crucial to our customers to restore the facility as quickly as possible. Nearly \$200,000 of reconstruction was necessary.

It was a pleasure to work with Linfield, Hunter and Junius, Inc. under these most difficult circumstances and we could not have restored the wharf so quickly without your firm's assistance.

Sincerely,

Deborah D. Keller  
Senior Manager, Operations

DDK/mal

BOARD OF COMMISSIONERS OF THE PORT OF NEW ORLEANS



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 60267  
NEW ORLEANS, LOUISIANA 70160-0267

October 15, 2008

Engineering Division  
Civil Branch

ACEC  
American Council of Engineering Companies  
Attn: Daisy Nappier  
1015 15<sup>th</sup> Street, N.W.  
8<sup>th</sup> Floor  
Washington, D.C. 20005-2605

Re: 2009 Engineering Excellence Awards  
17<sup>th</sup> Street Canal Interim Closure Structure

Dear Ms. Nappier:

After Hurricane Katrina, the U.S. Army Corps of Engineers was faced with the unprecedented challenge of quickly restoring hurricane protection in a region devastated by a storm of historic proportions. We called upon Linfield, Hunter & Junius, Inc. (LH&J) to assist in our hurricane recovery efforts.

Starting immediately after Hurricane Katrina struck, LH&J provided designs for repair of 17<sup>th</sup> Street Canal breaches. Over the coming months, they designed the gate structure and the first phase of pumps. Working closely with our Task Force Guardian LH&J provided construction drawings for the gate structure within just a few months of Katrina. LH&J continued to work with us diligently through completion of the project in 2007.

The 17<sup>th</sup> Street Canal Interim Closure Structure solved an important engineering challenge faced by our organization. The project was completed on a very aggressive schedule in a challenging environment exceeding what we expected. The U.S. Army Corps of Engineers awarded LH&J a Certificate of Appreciation for Support of Task Force Guardian in recognition of the outstanding contribution they provided in support of our efforts in rebuilding the Hurricane Protection System in Southeast Louisiana.

Yours very truly,

A handwritten signature in black ink that reads "Walter O. Baamy, Jr.".

Walter O. Baamy, Jr., P.E.  
Chief, Engineering Division  
U.S. Army Corps of Engineers  
New Orleans District  
7400 Leake Avenue  
New Orleans, LA 70118



**USACE - New Orleans District**  
*Certificate of Appreciation*

is presented to

**Linfield Hunter & Junius, Inc.**

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 (HSDRRS) mission. The Linfield Hunter & Junius, Inc. contractors' professionalism, competence, and initiative were instrumental to the successful execution in surveying of multiple sites critical to the completion of both design and the construction of the HSDRRS project.

Linfield Hunter & Junius' outstanding achievement is in keeping with the finest traditions of public service and reflects great credit upon the Linfield Hunter & Junius, Inc. team, the U.S. Army Corps of Engineers, and the United States Army.

06 February 2012



**US Army Corps  
of Engineers**®  
New Orleans District

Edward R. Fleming  
Colonel, US Army  
Commander, New Orleans District  
US Army Corps of Engineers



# CERTIFICATE OF APPRECIATION

FOR

## SUPPORT OF TASK FORCE GUARDIAN

AWARDED TO

### Linfield Hunter & Junius, Inc.

in recognition of the outstanding contributions your company provided in support of Task Force Guardian and the U.S. Army Corps of Engineers in the rebuilding of the Hurricane Protection System of southeast Louisiana. The efforts of your company were integral to meeting the Corps' goal of restoring protection by the June 1 start of hurricane season. The willingness of your employees to work long hours under difficult conditions is a tribute to the professionalism of your company and demonstrates your commitment to rebuilding southeast Louisiana.

*Walter O. Baumy, Jr.*

WALTER O. BAUMY, JR.  
DEPUTY PROGRAM MANAGER  
TASK FORCE GUARDIAN



US Army Corps  
of Engineers®  
New Orleans District

*Lewis F. Setliff III*

LEWIS F. SETLIFF III  
COLONEL, U.S. ARMY  
COMMANDER, TASK FORCE GUARDIAN

The Louisiana Professional Engineering and Land Surveying Board has the following information on file:

Name: Linfield, Hunter & Junius, Inc.  
Public Address: 3608 18th Street, Suite 200 Metairie, LA 70002

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0000510	ACTIVE	05/23/1979	03/31/2023	Mr. Nathan John Junius # PE.0031843 - Active

The Louisiana Professional Engineering and Land Surveying Board has the following information on file:

Name: Linfield, Hunter & Junius, Inc.  
Public Address: 3608 18th Street, Suite 200 Metairie, LA 70002

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
VF.0000532	ACTIVE	06/15/2004	09/30/2022	Mr. Nathan John Junius # PLS.0004958 - Active

Print Close

9643 Brookline Avenue | Suite 121 | Baton Rouge, LA 70809-1433  
225-925-6291 | Fax 225-925-6292



## TEC Professional Services Questionnaire

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

Jefferson Parish Coastal Engineering Consulting Services  
138902

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

ELOS Environmental, LLC  
607 W. Morris Avenue  
Hammond, LA 70403

**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:**

N/A

**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.**

N/A

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

<u>2</u> Administrative	<u>    </u> Estimators	<u>    </u> Specification Writers
<u>    </u> Architects (Licensed)	<u>    </u> Geologists	<u>    </u> Structural Engineers
<u>    </u> Chemical Engineers	<u>    </u> Geotechnical Engineers	<u>    </u> Graduate Engineers
<u>    </u> Civil Engineers	<u>    </u> Interior Designers	<u>3</u> Project Managers
<u>    </u> Construction Inspectors	<u>    </u> Landscape Architects	<u>2</u> Clerical
<u>12</u> Ecologists	<u>    </u> Land Surveyor	<u>    </u> Grant/Funding Specialist
<u>    </u> Electrical Engineers	<u>    </u> Mechanical Engineers	<u>1</u> Sanitary Engineers
<u>    </u> Engineer Intern	<u>1</u> Environmental Engineers	
<u>    </u> Professional Land Surveyors		<u>21</u> TOTAL

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

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

**TEC Professional Services Questionnaire**

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

1. N/A

2.

**H. Has this JOINT-VENTURE previously worked together? Please check:  
YES \_\_\_\_\_ NO \_\_\_\_\_**

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

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

**J. Please specify the total number of support personnel that may assist in the completion of this Project:**  
10

\_\_\_\_\_

## 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:**

Lucas Watkins, President

**Project Assignment:**

ELOS Principal/Senior Environmental Scientist

**Name of Firm with which associated:**

ELOS Environmental, LLC

**Years' experience with this Firm:**

15

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

Master of Science, 2005, Biological Sciences  
Bachelor of Science, 2000, Forest Management

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

2010, LA Department of Agriculture and Forestry, Arborist, License No. 19-1827

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

Lucas Watkins has over 21 years of experience as a professional consultant. His experience covers environmental regulatory compliance as well as program and project management. This includes the management of large scale, multi-faceted projects, such as disaster recovery debris removal efforts, wetland restoration implementation, government grant management, and complex construction projects. His extensive experience as a professional consultant and involvement in identifying and addressing environmental compliance issues covering a wide range of the environmental industry is instrumental to the support of ELOS clients and projects. Mr. Watkins' key strengths include wetland delineations, wetland permitting, wetland restoration, NEPA compliance, ASTM Phase I ESAs, storm water management, FERC regulatory overview and guidance, endangered species surveys, and timber and forest management. He has substantial experience in permitting municipal infrastructure, levees, borrow pits, oil and gas exploration, productions, and transmission activities as well as working on other public and private sector environmental related issues. He works to ensure that ELOS acquires the best tools and techniques to guarantee efficient and cost-effective delivery of services to clients.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b> Brian Fortson, Senior Environmental Scientist
<b>Project Assignment:</b> Senior Ecologist
<b>Name of Firm with which associated:</b> ELOS Environmental, LLC
<b>Years' experience with this Firm:</b> 8
<b>Education: Degree(s)/Year/Specialization:</b> Bachelor of Science, 1995, Wetland Ecology Juris Doctor, 2006, Civil Law
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b> Mr. Fortson served as a Planner, Environmental Specialist and Coastal Wetland and Environmental Resources Manager for St. Tammany Parish Government from 1990 to 2012. He was responsible for the administration of the St. Tammany Parish Local Coastal Program under the Coastal Zone Management Act and was responsible for managing the natural resource permitting efforts for Parish Government. Mr. Fortson was the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) representative for St. Tammany Parish beginning with Project Priority List 1 and has proposed and presented multiple coastal restoration projects and facilitated the approval of projects through that process. With ELOS, Mr. Fortson has led permitting efforts for multiple projects for local development and infrastructure improvement efforts. Mr. Fortson provides technical expertise on many other projects for which he is not the lead scientist.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b> Jerry Graves PhD, VP of Coastal Resiliency
<b>Project Assignment:</b> Biological and Environmental assessments
<b>Name of Firm with which associated:</b> ELOS Environmental, LLC
<b>Years' experience with this Firm:</b> <1
<b>Education: Degree(s)/Year/Specialization:</b> BA, Political Science, University of Louisiana at Lafayette, 2003 MPA, Hazard Policy, University of New Orleans, 2007 PhD, Urban Studies, University of New Orleans, 2012
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b> Jerry V. Graves specializes in project management, urban and environmental planning, and emergency management. Dr. Graves is an experienced hazard mitigation, resilience, and coastal restoration planner. He is also an experienced administrator who previously worked in the public sector for over a decade. Dr. Graves currently serves as the Vice President of Coastal Resilience at ELOS, where he provides a wide range of project management and consulting services to clients throughout the region.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b> Ryan Carter, Geographical Information Systems (GIS) Manager
<b>Project Assignment:</b> GIS Manager
<b>Name of Firm with which associated:</b> ELOS Environmental, LLC
<b>Years' experience with this Firm:</b> 2
<b>Education: Degree(s)/Year/Specialization:</b> BA, Urban Planning, Minor in GIS, University of New Orleans, 2017
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b> Almost all ELOS projects begin with data collection and mapping. As such, Mr. Carter and his team touch every project providing data collection and mapping services for clients. Mr. Carter has served as a GIS Technician at ELOS since he began in December 2019 and has since become GIS Manager. His responsibilities have included assisting in preparing technical reports and analyzing collected data through the use of GIS on nearly all ELOS projects. He has experience with ArcGIS Online, ArcGIS Pro, AutoCAD, Collector of ArcGIS, Survey 123, Expert GPS, BaseCamp, and Google Earth. With the use of these software programs, he collects and interprets field data in support of environmental analyses and impact assessments. The figures and maps he creates are vital to the development of National Environmental Policy Act (NEPA) documentation, Threatened and Endangered Species Surveys, Wetland Delineations and Jurisdictional Determinations, Phase I Environmental Site Assessments, Section 404/10 and Coastal Use Permit applications, and wetlands assessment models. He has also completed a land title course conducted by the American Land Title Association (ALTA).

**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b> Flynn Daigle, Project Manager
<b>Project Assignment:</b> Project Manager / Environmental Specialist
<b>Name of Firm with which associated:</b> ELOS Environmental, LLC
<b>Years' experience with this Firm:</b> 7
<b>Education: Degree(s)/Year/Specialization:</b> Bachelor of Science, 2005, Environmental Management Systems
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b> Mr. Daigle is the Lead Project Manager and an Environmental Scientist with experience in many phases of Environmental compliance, including National Environmental Policy Act (NEPA), Section 10 and 404 permitting, wetland delineations, Phase I and II subsurface investigation, and Floodplain Management. He is a Certified Floodplain Manager (CFM) accredited through the Association of State Floodplain Managers (ASFPM). He is well-versed in regulations governing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

## TEC Professional Services Questionnaire

<b>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.</b>		
<b>PROJECT NO. 1</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Laketown Harbor GOMESA Project Jefferson Parish, LA  Michelle M. Gonzales Jefferson Parish Dept. of Coastal Management 1221 Elmwood Park Blvd., Suite 310 Jefferson, LA 70123 (504)736-6719 MGonzales@jeffparish.net	ELOS collected data, prepared a wetland delineation report, submitted a joint permit application, a levee permit application, and conducted cultural resources review for authorization from the U.S. Army Corps of Engineers (USACE), the Louisiana Department of Natural Resources (LDNR), the Southeast Louisiana Flood Protection Authority – East (SLFPA-E), and the Louisiana Office of State Lands (OSL) for the proposed Laketown Harbor Project located in Jefferson Parish, LA. The project area includes the 60-acre Laketown area located north of the terminus of Williams Boulevard and the Lake Pontchartrain levee, including the boat launch, fishing pier, parking areas, Treasure Chest Casino, and undeveloped property along the western property boundary.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
June 2020 – Present	N/A	\$91,500

<b>PROJECT NO. 2</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Bucktown Living Shoreline Jefferson Parish, LA  Michelle M. Gonzales Jefferson Parish Dept. of Coastal Management 1221 Elmwood Park Blvd., Suite 310 Jefferson, LA 70123 (504)736-6719 MGonzales@jeffparish.net	ELOS was sub-contracted to provide Cultural Resources tasks in support of the Bucktown Living Shoreline Project located in Jefferson Parish, LA. This \$1.7 million project funded by the parish and the EPA will include a boardwalk, breakwaters, high-marsh shrubs, and mainland fringing tidal marsh to create a natural resilient shore. The tasks included a Desktop Cultural Resources Analysis covering the shoreline project area and all potential borrow areas identified on the attached figure and an underwater Phase I Cultural Resources Investigation of the 100-acre portion (13.63 transect miles) of the northeastern borrow area.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
February 2021	N/A	\$41,500

## TEC Professional Services Questionnaire

<b>PROJECT NO. 3</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<p>Veterans Memorial Boulevard Pump Stations New Orleans, LA</p> <p>Gary E. Lehmann, P.E. Jefferson Parish Dept. of Capital Projects 1221 Elmwood Park Blvd., Suite 906 Jefferson, LA 70123 (504)736-6779 GLEhmann@jeffparish.net</p>	<p>ELOS is currently contracted to provide Environmental Services in support of the Jefferson Parish Pump Stations Project on Veterans Memorial Boulevard in Jefferson Parish, LA. ELOS is responsible for applying for Coastal Use, Clean Water Act Section 404, and Rivers and Harbors Act Section 408, and levee permits for two pump stations located north and south of Veterans Memorial Boulevard along the west bank of the 17<sup>th</sup> Street Canal in New Orleans. The designs include the outflow pipe being lifted above the existing levee and through the existing floodwall. Additional access gates are also included in the designs to allow for maintenance. Due to the proposed impacts to the levee and floodwalls, the project must be reviewed by the Completed Works section of the U.S. Army Corps of Engineers for compliance with Section 408. This review process includes preparing an Environmental Assessment to determine potential impacts on cultural resources, threatened and endangered species, essential fish habitat, water quality air quality, etc. The project's purpose is to improve street drainage at the Veterans Boulevard crossing the 17<sup>th</sup> Street Canal.</p>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
July 2023 (estimated)	N/A	\$21,380

<b>PROJECT NO. 4</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Canal Street Ferry Terminal Phase I ESA Jefferson Parish, LA</p> <p>Taylor Marcantel, AICP Senior Transportation Planner Transdev, in service to the New Orleans RTA 2817 Canal Street, New Orleans, LA 70119 (504) 827-8315 taylor.marcantel@transdev.com</p>	<p>ELOS conducted a Phase I Environmental Site Assessment (ESA) on behalf of Royal Engineers &amp; Consultants, the New Orleans Regional Transit Authority (RTA), and the Federal Transit Administration (FTA). The project goal was to demolish the existing complex of buildings and replace it with a smaller ferry terminal building. The ESA was performed in accordance with the E1527-13 methodology and the <i>All Appropriate Inquiries (AAI)</i> documentation requirements set forth in 40 Code of Federal Regulations (CFR) Part 312. The Purpose was to identify recognized environmental conditions (REC) in, on, or at the Subject Property and to make a recommendation about the need for additional assessments or actions prior to construction of the project.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
July 2021	N/A	\$16,500

## TEC Professional Services Questionnaire

<b>PROJECT NO. 5</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>West Esplanade Boulevard Pump Station Jefferson Parish, LA</p> <p>Gary E. Lehmann, P.E. Jefferson Parish Dept. of Capital Projects 1221 Elmwood Park Blvd., Suite 906 Jefferson, LA 70123 (504)736-6779 GLEhmann@jeffparish.net</p>	<p>ELOS is currently sub-contracted by ECM Consultants, Inc. to provide Environmental Services in support of the Jefferson Parish Pump Station Project in Jefferson Parish, LA. ELOS is responsible for applying for Coastal Use, Clean Water Act Section 404, and Rivers and Harbors Act Section 408, and levee permits for a proposed pump station to be located in the neutral ground of West Esplanade Boulevard across Orpheum Avenue from the 17th Street Canal. The designs include the outflow pipe being lifted above the existing levee and floodwall into the canal. Due to the proposed impacts to the levee from outflow pipe support piles, the project must be reviewed by the Completed Works section of the U.S. Army Corps of Engineers for compliance with Section 408. This review process includes preparing an Environmental Assessment to determine potential impacts on cultural resources, threatened and endangered species, essential fish habitat, water quality, air quality, etc. The project's purpose is to improve street drainage in the West Esplanade/Lake Avenue vicinity.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
June 2023 (estimated)	N/A	\$14,920

<b>PROJECT NO. 6</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Jefferson Transit Bus Stop Improvements District 4 Jefferson Parish, LA</p> <p>Gary E. Lehmann, P.E. Jefferson Parish Dept. of Capital Projects 1221 Elmwood Park Blvd., Suite 906 Jefferson, LA 70123 (504)736-6779 GLEhmann@jeffparish.net</p>	<p>ELOS was contracted by the Jefferson Parish Government to assess and analyze the current condition of Jefferson Transit (JeT) bus stops in Jefferson Parish Council District 5 to assist in improvements to advance compliance with the Americans with Disabilities Act (ADA) of 1990 and 2009 by investigating the pedestrian facilities nearby, identifying priority areas, and creating a plan for connectivity and accessibility of bicycle, transit, and pedestrian facilities. ELOS utilized Geographic Information System (GIS) tools to assess and analyze transit assets and conditions to facilitate compliance with the "Louisiana Complete Streets" policy established by the Louisiana Department of Transportation and Development. The data collected included roadways, bus routes, and council district boundaries. A list of stops with geographic coordinates from the 2011 inventory report was cross-referenced with the COA list, which included ridership information. This dataset, along with other GIS mapping and imagery databases, were the basis for development of the GIS database for the project. In addition to these layers, the GIS team created fields for field assessment of the existing condition of transit-related infrastructure and immediate access at each stop. Each stop was paired with the nearest corner at the intersection of the bus route road way and the next cross street as determined by measurements using GIS</p>	

## TEC Professional Services Questionnaire

	data. Attributes in the GIS database were created for condition survey data such as pathways in the immediate vicinity of the bus stop, access to and from the corner along with curb conditions, crosswalks, and pedestrian aids such as detectable warning and signals.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
August 2018	N/A	\$126,000

### PROJECT NO. 7

<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Bayou Terre Aux Boeufs Ridge Restoration Armoring St. Bernard Parish</p> <p>John Lane St. Bernard Parish Government 8201 West Judge Perez Drive Chalmette, LA 70043 504.278.4223 jlane@sbpg.net</p>	<p>ELOS was contracted to provide the wetlands delineation and permitting for 20,420 linear feet of armoring of the Bayou Terre Aux Boeufs Ridge Restoration Project in Delacroix, LA. ELOS field crews collected soil, vegetation, and hydrology data for the wetlands delineation of 16 acres, and prepared a request for jurisdictional determination (JD). The JD was approved in August 2017. ELOS prepared a permitting strategy prior to submitting any applications that accounted for the need for a cultural resource survey as a condition of permits for both the geotechnical borings as well as construction. ELOS identified sensitive areas within the project area and worked with the geotechnical engineer to modify the boring plan to avoid these. Subsequently, ELOS arranged a pre-application meeting with the LASHPO and received approval on the modified work plan. This strategy prevented cost overruns and delays. Approximately 250 shovel test plots were investigated for the presence of artifacts, which were then evaluated and catalogued. All data points were located with GPS points and organized in a GIS database allowing ELOS to share the data by way of shapefiles and map displays that are accurate at sub-meter resolution. ELOS submitted the geotechnical permit application to the Corps (borings are assigned a No Determination of Significant Impacts by the Office of Coastal Management). ELOS also provided on site monitoring once the construction phase of the project commenced.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
August 2018	N/A	\$126,000

## TEC Professional Services Questionnaire

<b>PROJECT NO. 8</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Plaquemines Parish Coastal Team Consulting Plaquemines Parish, LA  Vincent Frelich Director of Coastal Restoration Plaquemines Parish Government 333 F. Edward Hebert Blvd., Bldg. 100, Suite 212, Belle Chasse, LA, 70037 504.297.5629 vfrelich@ppgov.net	ELOS was a key member of the Plaquemines Parish Coastal Team that assisted in designing, evaluating, and permitting a series of potential ridge and marsh restoration projects in Plaquemines Parish. The ridge projects are evaluated for their potential to reduce impacts. The assessment for these projects evaluated plant species, height, diameter, and densities along the ridges. ELOS performed ecological assessments for 7 large scale coastal ridge and marsh restoration projects proposed by Plaquemines Parish Government for inclusion in its Coastal Master Plan. ELOS worked with 7 different engineering firms to design and assess the benefits and impacts associated with the construction of ridge formations and adjacent marsh platform creation through the use of dedicated sediment delivery from dredging in the Mississippi River and transporting the sediment through long distance pipelines to the project site.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
August 2014	N/A	\$143,000

<b>PROJECT NO. 9</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Lake Lery Marsh Creation and Rim Restoration St. Bernard Parish, LA  John Lane St. Bernard Parish Government 8201 West Judge Perez Drive Chalmette, LA 70043 (504) 278-4223 jlane@sbpg.net	ELOS was contracted to assist St. Bernard Parish Government with professional environmental and cultural resource investigations to support the large-scale marsh creation and rim restoration initiative. The project created 177 acres of vital marsh within Lake Lery, nourished an additional 209 acres, and developed a rock embankment along the northwestern sector of Lake Lery that improved shoreline protection. ELOS personnel collected data and completed an environmental review of site conditions to support a joint permit application to the regulatory agencies authorizing the project. ELOS has concurrently consulted with the USACE and the Louisiana State Historic Preservation Office to establish the Area of Potential Effect and determine the required level of cultural resource investigations. Subsequently, ELOS personnel has completed a review of available cultural resource data and previous investigations to determine the potential likelihood of the presence of cultural resources. The collected information and data are to be provided to Parish personnel for use in completing the project.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
May 2021	N/A	\$59,000

**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>	
Lake Pontchartrain Shoreline Protection Tangipahoa Parish, LA  Hon. Robby Miller Parish President Tangipahoa Parish Government 206 East Mulberry Street, Amite City, LA 70442	The Lake Pontchartrain Shoreline Protection Project involved the construction of two offshore breakwaters to protect the rapidly eroding shoreline extending from the existing breakwaters south to Pass Manchac and from the Tangipahoa River north to the Tangipahoa/St. Tammany Parish Line. In anticipation of the proposed constriction, ELOS was contracted to provide a section 106 review and pedestrian survey, and a phase I underwater cultural resources investigation to identify any cultural resources materials. ELOS also collected data and submitted applications for several permits to obtain authorization from the office of coastal management, USACE, Louisiana Department of Environmental Quality, and the Office of State Lands.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
December 2021	N/A	\$93,400

## TEC Professional Services Questionnaire

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

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A	N/A	N/A
2.		
3.		
4.		

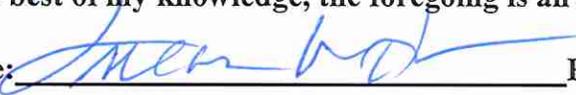
**N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.**

ELOS Environmental, LLC (ELOS) is a professional consulting firm established in 2006 by two young entrepreneurs and biologists from Tangipahoa Parish, Louisiana. Since its founding, ELOS has become one of the premier professional consulting firms in the state of Louisiana, performing a variety of technical services and managing projects at all levels of government. ELOS is a privately owned Limited Liability Company and a certified Louisiana Small and Emerging Business Enterprise (Certification No. 11198). ELOS's familiarity with federal, state, and local agencies and processes in combination with expertise in relevant scientific technologies result in streamlined environmental services for our clients, saving them time and money.

Our services include:

- Environmental Assessments & Monitoring
- Permit Applications
- Cultural Resources Services
- Mold, Asbestos, & Lead Testing
- Inspection Services
- GIS Services
- Drone Services
- Program Management
- Grant Management & Support

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

Signature:  Print Name: Lucas Watkins  
 Title: President Date: 7/26/22

**TEC Professional Services Questionnaire**

<b>A. Project Name and Advertisement Resolution Number:</b>																													
SOQ 22-036 Res. 139868 Supplemental Coastal Engineering Consulting Services																													
<b>B. Firm Name &amp; Address where Project Work Will be Performed:</b>																													
<b>Eustis Engineering L.L.C.</b> 3011 28 <sup>th</sup> Street, Metairie, Louisiana 70002																													
<b>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:</b>																													
Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / <a href="mailto:gsanders@eustiseng.com">gsanders@eustiseng.com</a>																													
<b>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.</b>																													
Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / <a href="mailto:gsanders@eustiseng.com">gsanders@eustiseng.com</a>																													
<b>E. Please provide the number of employees whose primary function corresponds with each category:</b>																													
<table style="width:100%; border: none;"> <tr><td style="width:33%;"><u>  9  </u> Administrative</td><td style="width:33%;"><u>      </u> Estimators</td><td style="width:33%;"><u>      </u> Specification Writers</td></tr> <tr><td><u>      </u> Architects (Licensed)</td><td><u>   2   </u> Geologists</td><td><u>      </u> Structural Engineers</td></tr> <tr><td><u>      </u> Chemical Engineers</td><td><u>  16  </u> Geotechnical Engineers</td><td><u>   3   </u> Graduate Engineers</td></tr> <tr><td><u>      </u> Civil Engineers</td><td><u>      </u> Interior Designers</td><td><u>      </u> Project Managers</td></tr> <tr><td><u>      </u> Construction Inspectors</td><td><u>      </u> Landscape Architects</td><td><u>   6   </u> Clerical</td></tr> <tr><td><u>      </u> Ecologists</td><td><u>      </u> Land Surveyor</td><td><u>      </u> Grant/Funding Specialist</td></tr> <tr><td><u>      </u> Electrical Engineers</td><td><u>      </u> Mechanical Engineers</td><td><u>      </u> Sanitary Engineers</td></tr> <tr><td><u>   2   </u> Engineer Intern</td><td><u>      </u> Environmental Engineers</td><td><u>  39  </u> <b>Other</b></td></tr> <tr><td><u>      </u> Professional Land Surveyors</td><td></td><td><u>  77  </u> <b>TOTAL</b></td></tr> </table>	<u>  9  </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>  16  </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>   6   </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>   2   </u> Engineer Intern	<u>      </u> Environmental Engineers	<u>  39  </u> <b>Other</b>	<u>      </u> Professional Land Surveyors		<u>  77  </u> <b>TOTAL</b>		
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<b>F. Is this submittal is a JOINT-VENTURE? Please check: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></b>																													
<b>If marked "No," skip to Section I. If marked "Yes," complete Sections G-H.</b>																													

**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.

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:**

100 - Eustis Engineering's full staff as needed.

**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:**

29

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

Master of Science / 1992 / Civil Engineering  
Bachelor of Science / 1990 / Civil Engineering

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

Louisiana: 1997 / Civil Engineering  
Mississippi: 2003 / Engineering  
Texas: 2020 / Civil Engineering

**Other Experience and Qualifications Relevant to the Proposed Project:**

Mrs. Sanders began her professional career with Eustis Engineering in 1993. Over the past 29 years, she has worked her way up through the ranks of the engineering department including Associate Engineer, Project Engineer, Project Manager, Engineering Manager, and Executive Vice President. In 2020, Mrs. Sanders became Eustis Engineering’s first woman president. As President, she is responsible for day-to-day business operations including quality, safety, marketing, and long-term strategic growth. She also still actively participates in the engineering design and review processes.

**State of Louisiana - Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Vicinity of Ironton and Lafitte, Louisiana (23325):** Mrs. Sanders provided guidance regarding the scope of the exploration program associated with LaDOTD as a stakeholder for the bridge portion of the project. She assisted in outlining the differences between the laboratory testing protocols required by HSDRRS/LFPDG and those expected by AASHTO/LaDOTD as well as the reporting requirements and logs. Mrs. Sanders also provided technical review of the drilling plan including hydraulic fracture analysis of the boring program.

**State of Louisiana - Coastal Protection and Restoration Authority, Bayou Eau Noire, Vegetative Ridge Restoration and Marsh Creation Project, Plaquemines Parish, Louisiana (23879):** The Bayou Eau Noire project will create more than 400 acres of marsh and nearly 26,500 linear feet of coastal ridge habitat. Approximately 1,700 feet of earthen containment are included in the project. The marsh will be created and nourished by hydraulically dredging material from the Mississippi River and pumping it into the designated fill sites. Water depths are 2.5 to 3 feet in the proposed marsh creation areas and 8 to 10 feet in the canals. As engineering manager, Mrs. Sanders selected the design team to handle the project and oversaw geotechnical engineering analyses associated with project features.

**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

**State of Louisiana - Grande Chenier Ridge Marsh Creation Area (BA-0240), Plaquemines Parish, Louisiana (24364):**

Mrs. Sanders is the Senior Project Manager providing oversight for this 600-acre marsh creation and 11,000-l.f. coastal ridge habitat project. Engineering analyses have included evaluation of marsh creation fill cells as well as design of earthen containment dikes and the ridge.

**Terrebonne Levee & Conservation District - Falgout Canal Hurricane Protection Project, Terrebonne Parish, Louisiana (23689):**

Eustis Engineering developed geotechnical recommendations and analyses to support the design of flood protection at Falgout Canal in Terrebonne Parish, Louisiana. Flood protection consisted of a 195-ft swinging barge floodgate in Falgout Canal and braced walls that extended from the floodgate and tie-in to an earthen levee alignment on the northern and southern sides of Falgout Canal. As our Engineering Manager, Mrs. Sanders again allocated resources to complete pile load capacity estimates as well as stability and seepage analyses for the floodgate and braced walls. She also performed an Independent Technical Review for the most recent phase of the project.

**State of Louisiana - Grande Bayou Ridge and Marsh Restoration, Plaquemines Parish, Louisiana (24365):**

Mrs. Sanders is currently providing guidance to one of our project engineers on this CPRA task order. Engineering requirements include stability analyses to evaluate the geometry required for stable configurations of the dike, ridge, and terrace designs, as well as settlement and consolidation settlement analyses.

**State of Louisiana - 15% Design Phase, Maurepas Diversion and West Shore of Lake Pontchartrain, St. John the Baptist Parish, Louisiana (24384):**

The 15% design phase of this project includes the Maurepas Diversion structure and flood protection for the west shore of Lake Pontchartrain. Mrs. Sanders worked with the project engineer to review existing data developed by Eustis Engineering and others for the project. These findings were included in an initial draft report to the client.

**State of Louisiana - East Delacroix Marsh Creation Project, St. Bernard Parish, Louisiana (24431):**

The project will create 406 acres of confined marsh by hydraulically dredging materials from a borrow source. Mrs. Sanders is currently providing oversight on this project coordinating with government officials and our subcontractor. Preliminary engineering analyses have included marsh fill settlement, design of earth containment dikes, and design of tidal levees and earth terraces.

**State of Louisiana - Mid Breton Sediment Diversion Project, Construction Management at Risk Preconstruction Services, Mississippi River Mile 68, Wills Point, Plaquemines Parish, Louisiana (24311):**

Mrs. Sanders is currently providing geotechnical expertise and peer review of the designers' work products for the project. This work consists of geotechnical criteria and geotechnical design reviews, constructability reviews of geotechnical design products, and participation and support to construction cost estimates throughout the course of design development.

## 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:**

James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)

**Project Assignment:**

Senior Project Manager

**Name of Firm with which Associated:**

**Eustis Engineering L.L.C.**

**Years' Experience with This Firm:**

18

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

Master of Business Administration / 2011 / Business Administration  
Master of Science / 2003 / Civil Engineering  
Bachelor of Science / 1998 / Civil Engineering

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

Louisiana: 2004 / Civil Engineering  
Texas: 2010 / Civil Engineering  
Mississippi: 2012 / Engineering

**Other Experience and Qualifications Relevant to the Proposed Project:**

Mr. Hance has been involved in many projects for various government agencies and private sector clients in his 18 years at Eustis Engineering. Mr. Hance manages geotechnical services associated with commercial, industrial, environmental, and civil works projects. He has developed an expertise in coastal Louisiana projects involving flood protection and coastal restoration. Some of his project experience pertaining to this submittal is provided here.

**State of Louisiana - Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Vicinity of Ironton and Lafitte, Plaquemines and Jefferson Parishes, Louisiana (23325):** Mr. Hance is the project manager as well as the lead geotechnical engineer for the field exploration, laboratory testing, and geotechnical design. Mr. Hance has worked consistently with CPRA since December 2017. Because of the scale and complexity of this landmark project for CPRA, Mr. Hance has been co-located with CPRA, their program manager, and many design firms to move this design project forward. He has overseen Eustis Engineering's massive field program comprising 162 borings (3 and 5-in. diameter) and 98 CPTs for the three exploration phases (15%, 30%, and 60%). Beyond the field program, the lab program had many thousands of undrained and drained shear strengths, consolidation, DSS, Atterberg limit, sieve, and moisture content tests. Mr. Hance has participated in a semi-quantitative risk assessment and many design meetings. All aspects of geotechnical engineering analyses and design have been brought to bear on this project. The 60% design phase, including issuing the request for the Section 408 Permit to the USACE, will be complete by the fall of 2021. The 100% design will be complete by year end 2022 with an early works construction package in mid-2022. Mr. Hance will continue in his role as PM and lead geotechnical engineer into the construction phase.

**St. Mary Levee District - Bayou Chene Flood Protection and Diversion Structure, St. Mary Parish, Louisiana (21838, 22147, 24043):** Mr. Hance represented Eustis Engineering as the sole geotechnical engineer attending design team

**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:**

James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)

meetings of four design firms. Significant effort was spent on developing an appropriate field exploration program and defining a consistent design criteria document for the design firms to reference. Eustis Engineering self-performed the entire field exploration program that involved accessing land, marsh/swamp, and marine areas. The marine operations were performed by two means: a truck-mounted drill rig positioned on a jack-up boat and a skid rig delivered to locations with a small shallow draft elevating boat.

**Terrebonne Levee & Conservation District - Morganza to the Gulf of Mexico Hurricane Protection Project, Floodgate Structure at Falgout Canal, Terrebonne Parish, Louisiana (21949):** Eustis Engineering performed numerous geotechnical studies as a subconsultant for the Terrebonne Levee & Conservation District for various reaches of the Morganza to the Gulf project. We worked closely with the structural engineers to model soil-structure interaction analyses. Mr. Hance directed and performed quality control design review of lateral load-deflection analyses of pipe piles planned to support the floodgate structure and adjoining walls. Mr. Hance also reviewed geotechnical evaluations of structures (i.e., gates and floodwalls) and levee tie-ins for various projects.

**U.S. Department of Agriculture - Natural Resources Conservation Services, North Catfish Lake Marsh Creation, Region 3, Terrebonne Basin, Lafourche Parish, Louisiana (24000):** As project manager, Mr. Hance performed engineering analyses for the earth containment dikes design which included slope stability analyses with and without marsh fill to evaluate the geometry required for stable dike configurations. Other analyses included estimates of dike fill consolidation during construction, development of settlement curves, recommendations related to setup time required for the newly placed material before dredged fill slurry was placed in the containment area, construction sequencing recommendations, and bearing capacity recommendations.

**U.S. Department of Agriculture - Natural Resources Conservation Services, Bayou Dularge Ridge, Marsh, and Hydrologic Restoration Project, Terrebonne Parish, Louisiana (23970):** The Bayou DuLarge project, as presented by USDA - NRCS, hopes to benefit more than 48,000 acres of wetlands through a combination of hydrologic restoration, marsh creation, and ridge restoration. The project location provides a unique opportunity to manage salinity intrusion where it had previously been somewhat controlled by land features. By reducing the cross-section of the Grand Pass and restoring the land bridge that separates Lake Merchant and Caillou Lake, the project should result in 661 acres of marsh creation and 22,000 feet of ridge. As project manager, Mr. Hance evaluated several alternatives for rock embankment closure with a heavy emphasis on constructability, performed slope stability and settlement analyses to evaluate various rock embankment closure concepts in detail, and provided an analysis of driven piles with respect to load-carrying capacity estimates.

**State of Louisiana - East Delacroix Marsh Creation Project, St. Bernard Parish, Louisiana (24431):** The project will create 406 acres of confined marsh by hydraulically dredging materials from a borrow source. Engineering activities included fill settlement analyses in marsh creation and marsh nourishment areas, design of earthen containment dikes, and design of tidal levees and earthen terraces. As the project manager, Mr. Hance led the frequent interactions with CPRA's engineers to perform parametric evaluations of marsh fill settlements. This included considering the impact of durations of fill placement within a given marsh creation cell on the constructed marsh fill elevations (CMFEs). Construction durations of fill placement were discussed during the design process as a function of the diameter of the dredge and the daily dredge production rates.

**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:**

James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)

**State of Louisiana - Grande Chenier Ridge Marsh Creation, Plaquemines Parish, Louisiana (24364):** The project would create 600 acres of marsh and 10,820 linear feet of coastal ridge habitat. Mr. Hance worked with his team to evaluate marsh creation fill cells, earthen containment dikes design, ridge design, as well as estimate settlement and slope stability analyses.

**State of Louisiana - Grand Bayou Ridge and Marsh Restoration, Plaquemines Parish, Louisiana (24365):** BA-0217 would create 344 acres of marsh; 25,000 linear feet of terraces; and 10,657 linear feet of coastal ridge habitat by hydraulically dredging material from a Mississippi River borrow source and utilizing in situ materials from Grand Bayou. Mr. Hance's team is currently performing engineering analyses for the earthen containment dikes, earthen ridge feature, earthen terrace design, and marsh creation fill area.



**TEC Professional Services Questionnaire**

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**PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Sean G. Walsh, P.E. / Vice President & Engineering Manager

**Project Assignment:**

Project Engineer

**Name of Firm with which Associated:**

**Eustis Engineering L.L.C.**

**Years' Experience with This Firm:**

9

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

Master of Science / 2010 / Civil Engineering  
Bachelor of Science / 2007 / Civil Engineering

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

Louisiana: 2013 / Civil Engineering

**Other Experience and Qualifications Relevant to the Proposed Project:**

A large portion of Sean Walsh's experience, before and after joining Eustis Engineering, involved development of design and construction recommendations associated with flood protection and coastal restoration 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 underseepage analyses; levee and bank stability by the Spencer's Method and the Method of Planes; reinforced embankment design; stability analyses of flood protection walls (e.g., T-wall, I-wall, L-wall, and braced 'plumb & batter' walls); downdrag and settlement analyses; settlement induced bending moments (SIBM) in foundation piles; piping analyses; uplift analyses; heave analyses; three dimensional modeling of fill and structural load placements for predictions of time-rate settlements of foundation systems; and numerical modeling of soil-structure-interaction (SSI) of flood protection structures by the finite element method (FEM).

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

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

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

**PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Sean G. Walsh, P.E. / Vice President & Engineering Manager

**State of Louisiana - Coastal Protection and Restoration Authority, Bayou Eau Noire, Vegetative Ridge Restoration and Marsh Creation Project, Plaquemines Parish, Louisiana (23879):** The Bayou Eau Noire project will create more than 400 acres of marsh and nearly 26,500 linear feet of coastal ridge habitat. Approximately 1,700 feet of earthen containment are included in the project. The marsh will be created and nourished by hydraulically dredging material from the Mississippi River and pumping it into the designated fill sites. Water depths are 2.5 to 3 feet in the proposed marsh creation areas and 8 to 10 feet in the canals. As Project Manager, Mr. Walsh developed soil design parameters for stability and settlement analyses, performed stability analyses for up to three marsh fill evaluations, and provided estimates of dike fill consolidation settlement during construction. Engineering also included development of marsh fill creation curves.

**St. Mary Levee District - Bayou Chene Flood Protection and Diversion Structure, Final Exploration, St. Mary Parish, Louisiana (21838, 22147, 24043):** As its Geotechnical Project Engineer, Mr. Walsh directed the activities associated with an extensive geotechnical field exploration to support the design of the earthen and structural systems that would collectively be used to provide flood protection to the project area. Geotechnical engineering design recommendations were developed for a braced sheetpile floodwall, float-in barge gate, earthen levee tie-ins at the floodwall extents, dredging design recommendations, levee design and construction recommendations, levee settlement, pile settlement, estimates of allowable axial and lateral pile capacities, and deep-seated and local stability analyses of walls and gates. Our engineering analyses and recommendations were generally in accordance with the Coastal Protection and Restoration Authority's (CPRA's) Louisiana Flood Protection Design Guidelines (LFPDG) dated 16 July 2015.

**Terrebonne Levee & Conservation District - Morganza to the Gulf of Mexico Hurricane Protection Project, Floodgate Structure at Falgout Canal, Terrebonne Parish, Louisiana (21949):** Mr. Walsh served as the Geotechnical Project Engineer developing axial pile load capacity estimates, stability analyses, and seepage analyses for the floodgate and braced walls. As part of the engineering team, Mr. Walsh performed detailed analyses of soil-structure interaction in accordance with CPRA's LFPDG. Analyses included downdrag and settlement analyses; settlement induced bending moments in piles; and 3D modeling of fill and structural load placements for predictions of time-rate settlements. This was a significant project because soil-structure-interaction (SSI) modeling using the finite element method (FEM) was requested by the CPRA to evaluate the lateral deflection predictions during storm surges for comparison with standard SSI methods. We used our FEM modeling of flood protection structures to define stresses and deformations. This numerical modeling is rarely provided in practice and only on massive design-build projects that involve value engineering. This work provided insight to the CPRA on how FEM can be used for flood protection structures that are not standard flood protection systems (e.g., Hurricane & Storm Damage Risk Reduction designs). This project later became the catalyst for a joint presentation amongst the design team and the CPRA regarding the SSI analyses and incorporation of the LFPDG as a topic at the 2015 Regional ASCE Conference and 2016 Louisiana State of the Coast Biennial Conference.

**Terrebonne Levee & Conservation District - Falgout Canal Levee and Floodwall Tie-ins, Terrebonne Parish, Louisiana (23689):** Mr. Walsh served as the Project Manager for the geotechnical design of a ground improvement and surcharge plan associated with earthen to wall tie-ins at Falgout Canal. Our responsibilities included the design of a wick drain field, monitoring settlement and pore water pressures in the foundation soils, and providing settlement curve estimates during construction for the project. With this program, the team used settlement plates, vibrating wire transducers for pore water pressure measurements, spider magnet extensometers, inclinometers, and settlement gauges all set up for real-time autonomous monitoring. The purpose of the program was to avoid impacts to the floodwall and floodwall

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

**PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Sean G. Walsh, P.E. / Vice President & Engineering Manager

foundations when co-existing with an earthen levee section subject to excessive ground surface settlements. The program was a success for the project owners.



**TEC Professional Services Questionnaire**

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**PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

James M. Williams, P.E. / Geotechnical Project Engineer

**Project Assignment:**

Project Engineer

**Name of Firm with which Associated:**

**Eustis Engineering L.L.C.**

**Years’ Experience with This Firm:**

3

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

Master of Science / 2018 / Civil Engineering  
 Bachelor of Science / 2016 / Civil Engineering

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

Louisiana: 2021 / Civil Engineering

**Other Experience and Qualifications Relevant to the Proposed Project:**

In August 2018, Mr. Williams accepted a position with Eustis Engineering as an Assistant Project Engineer and subsequently completed his Master of Science degree. In his current position, Mr. Williams continues to refine the fundamental aspects of site access coordination, laboratory test assignment, and project requirement and development criteria discussion with clients. Through the experience he gained during his graduate research, he has also offered technical assistance to our assistant laboratory manager for another level of review of advanced testing such as consolidated undrained tests. He has become familiar with a variety of geotechnical engineering analyses and evaluations including allowable bearing capacity, allowable load capacity for various types and sizes of piles, pile response to vertical and lateral loading, slope stability analyses of levees and earthen structures, sheetpile wall design, wick drain design, and settlement. Mr. Williams has developed a proficiency with engineering programs such as LPILE and GROUP by Ensoft; SLOPE/W by GeoStudio; Settle3 by RocScience, and in-house settlement evaluations.

Mr. Williams’ skills and understanding of the soft soil behavior of coastal Louisiana have developed exponentially with the variety of projects that have crossed his desk. Regarding this submittal, Mr. Williams has been directly involved with the following projects.

**State of Louisiana - East Delacroix Marsh Creation Project, St. Bernard Parish, Louisiana (24431):** The East Delacroix Marsh Creation Project (BS-0037) is proposed to create approximately 406 acres of confined marsh area by hydraulically dredging material from a borrow source located in Lake Lery. The borrow material will be placed within a designated marsh creation region formed by constructed earthen containment dikes along the perimeter. In addition, the project proposes 12,950 linear feet of earthen terraces adjacent to the marsh creation area to further expand the native fish and wildlife habitats within the project area. Phase I of the project comprised a field exploration and laboratory testing. Phase II of the project included engineering analyses and recommendations related to the marsh creations areas, earthen containment dikes, and terrace field. Mr. Williams coordinated the geotechnical field exploration of borings and cone penetration tests in the marsh creation and borrow areas as well as along the existing tidal levee. Laboratory

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**PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

James M. Williams, P.E. / Geotechnical Project Engineer

test assignments were completed in coordination with the Coastal Protection and Restoration Authority (CPRA). During the laboratory testing, Mr. Williams primarily focused on dredge material testing consisting of low pressure, high strain consolidation testing and settling column testing of samples from the borrow area. As Assistant Project Engineer, Mr. Williams performed settlement and stability evaluations consistent with the CPRA's Marsh Creation Design Guidelines.

**State of Louisiana – Coastal Protection and Restoration Authority, Bayou Eau Noire, Vegetative Ridge Restoration and Marsh Creation Project, Plaquemines Parish, Louisiana (23879):** The Bayou Eau Noire project will create more than 400 acres of marsh and nearly 26,500 linear feet of coastal ridge habitat. Approximately 1,700 feet of earthen containment are included in the project. The marsh will be created and nourished by hydraulically dredging material from the Mississippi River and pumping it into the designated fill sites. Water depths are 2.5 to 3 feet in the proposed marsh creation areas and 8 to 10 feet in the canals. As Assistant Project Engineer, Mr. Williams assisted with the development of soil design parameters for the earth ridge design. He also helped provide settlement curves including immediate and consolidation settlement due to self-weight consolidation and subsurface soils. Finally, he assisted with stability analyses of various alignments of restored ridges.

**St. Mary Levee District – Bayou Chene Flood Protection and Diversion Structure, Final Exploration, St. Mary Parish, Louisiana (21838, 22147, 24043):** As Assistant Project Engineer, Mr. Williams performed a multitude of geotechnical engineering design calculations for the following project features: braced sheetpile floodwalls, a barge gate, earthen levee tie-ins at the floodwall extents, and levees. His geotechnical analyses included levee settlement, pile settlement, estimates of allowable axial and lateral pile capacities, and deep-seated and local stability analyses of walls and gates. Our engineering analyses and recommendations were in accordance with the CPRA's Louisiana Flood Protection Design Guidelines dated 16 July 2015.

**Terrebonne Levee & Conservation District – Falgout Canal Levee and Floodwall Tie-ins, Terrebonne Parish, Louisiana (23689):** Mr. Williams assisted with review of settlement plate data and vibrating wire piezometer data associated with two earthen surcharge stacks that were installed at levee/floodwall tie-in structures. These instruments were only a part of the geotechnical instrumentation used to monitor the surcharge of two levee section tie-ins during construction of the floodgate structure. He also helped correlate this measured soil-response data to the predictions of settlement that were determined from settlement calculations. Mr. Williams gained good insight into the behavior of very soft foundation soils in response to earthen fill loads. This is important to this RFQ because of the similar responses observed in the construction of earthen containment dikes and ridges in coastal environments.

**U.S. Department of Agriculture – NRCS, Bayou Dularge Ridge, Marsh, and Hydrologic Restoration Project, Terrebonne Parish, Louisiana (23970):** The Bayou DuLarge project, as presented by USDA – NRCS, hopes to benefit more than 48,000 acres of wetlands through a combination of hydrologic restoration, marsh creation, and ridge restoration. The project location provides a unique opportunity to manage salinity intrusion where it had previously been somewhat controlled by land features. By reducing the cross-section of the Grand Pass and restoring the land bridge that separates Lake Merchant and Caillou Lake, the project should result in 661 acres of marsh creation, and 22,000 feet of ridge. As Assistant Project Engineer, Mr. Williams performed settlement evaluations using software such as the USACE program Preliminary Consolidation, Secondary Compression, Desiccation of Dredged Fill (PSDDF). Mr. Williams also performed detailed stability calculations of "during construction" and "after construction" scenarios of the earthen containment dikes and the adjacent, interior borrow canal. He performed and presented these results in accordance with CPRA's Marsh Creation Design Guidelines.

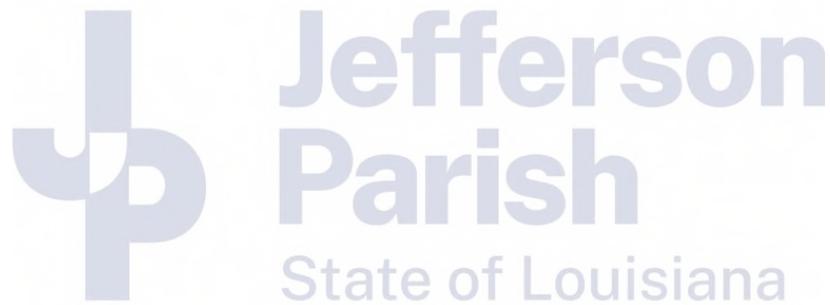
**K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's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

**PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

James M. Williams, P.E. / Geotechnical Project Engineer

**State of Louisiana - 15% Design Phase, Maurepas Diversion and West Shore of Lake Pontchartrain, St. John the Baptist Parish, Louisiana (24384):** The Maurepas diversion project included execution of an extensive site exploration along the proposed alignment including 5-inch undisturbed borings and cone penetration testing. Laboratory test assignments were coordinated with the CPRA. Mr. Williams assisted in coordination of the field operations and laboratory test assignments. He also completed review of the completed testing and preparation of a soil design parameter submittal for review by the CPRA and the USACE. Preliminary stability analyses based on the submitted parameters were also completed.



**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:**

Henry C. Worley, P.E. / Geotechnical Project Engineer

**Project Assignment:**

Geotechnical Project Engineer

**Name of Firm with which Associated:**

**Eustis Engineering L.L.C.**

**Years’ Experience with This Firm:**

4

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

Bachelor of Science / 2016 / Civil Engineering  
2019 / Coastal Engineering Certificate

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

Louisiana: 2021 / Civil Engineering

**Other Experience and Qualifications Relevant to the Proposed Project:**

Mr. Worley is nearing completion of his Master of Science degree in Engineering with a focus in geotechnical and coastal engineering. When not furthering his education, Mr. Worley works on projects within both the private and public sectors for Eustis Engineering. Private sector projects have ranged between small commercial structures to multi-story high-rise buildings, storage tanks, and other industrial facilities. Public projects have comprised roads, bridges, port facilities, government buildings and facilities, schools, and flood protection system improvements.

Engineering analyses associated with these projects include global and local slope stability analyses, allowable soil bearing values, estimates of settlement due to fill placement and structural loads, and shallow and deep foundation evaluations. He continues to hone his knowledge with computation software such as LPILE, SLOPE/W, Spencer’s Method, and the U.S. Army Corps of Engineers’ CWALSHT and Lower Mississippi Valley Division’s Method of Planes.

**U.S. Department of Agriculture - NRCS, North Catfish Lake Marsh Creation, Region 3, Terrebonne Basin, Lafourche Parish, Louisiana (24000):** The objective of this project is to use borrow material from Catfish Lake to create 411 acres of marsh habitat (currently open water) and nourish an additional 255 acres of marsh habitat (currently fragmented marsh). Mr. Worley was responsible for assigning and analyzing laboratory test data for the project. Engineering analyses have included design parameter selection, marsh settlement analyses, and stability analyses associated with the containment dike and ridge.

**State of Louisiana - Grande Chenier Ridge Marsh Creation Area (BA-0240), Plaquemines Parish, Louisiana (24364):** The purpose of the Grande Chenier Ridge Marsh Creation Project is to create 600 acres of marsh and 10,820 linear feet of coastal ridge habitat by hydraulically dredging material from the Mississippi River borrow source. After reviewing the boring logs and assigning the laboratory tests for the project, Mr. Worley performed geotechnical engineering analyses and prepared a preliminary engineering report for the project. Engineering analyses included both settlement analyses for the marsh creation area and stability analyses for the ridge area.

**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.**

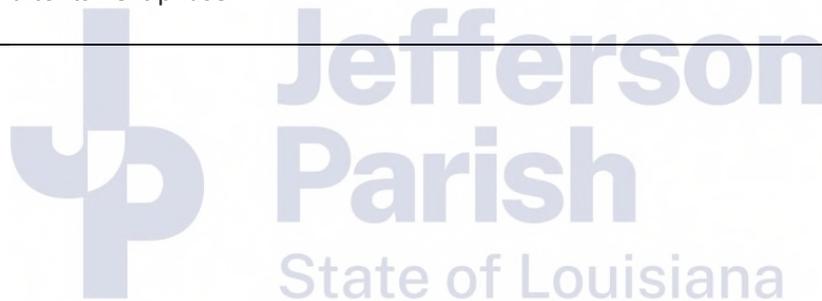
**PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Henry C. Worley, P.E. / Geotechnical Project Engineer

**State of Louisiana - Grande Bayou Ridge and Marsh Restoration, Plaquemines Parish, Louisiana (24365):** The Grand Bayou Ridge and Marsh Restoration Project (BA-0217) will create approximately 344 acres of marsh; 25,000 linear feet of terraces; and 10,657 linear feet of coastal ridge habitat by hydraulically dredging material from a Mississippi River borrow source and utilizing in situ materials from Grand Bayou. Mr. Worley was responsible for assigning and analyzing laboratory test data and is currently performing engineering analyses such as consolidation settlement and stability analyses.

**State of Louisiana - Grande Chenier Ridge Marsh Creation Project, Mississippi River Miles 45 Through 48 and 49 Through 52, Plaquemines Parish, Louisiana (24272):** The objective of this project was to identify sand material that could be dredged from the Mississippi River to create 600 acres of marsh and 10,820 linear feet of forested coastal ridge habitat. Mr. Worley served as the geotechnical project engineer on this project. His duties included coordination with Eustis Engineering's drilling and laboratory departments as well as our subcontractor, T. Baker Smith. Upon completion of the services, Mr. Worley issued a geotechnical data report for submission to CPRA so the project could continue to move forward to its next phase.



**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 align="center"> <b>U.S. Department of Agriculture                      Natural Resources Conservation Service                      Bayou DuLarge Ridge, Marsh, and                      Hydrologic Restoration Project                      Terrebonne Parish, Louisiana                      Eustis Engineering Project No. 23970                      Contact Information:</b> </p> <p align="center">                     USDA – NRCS Through                      Sigma Consulting Group, Inc.                      10305 Airline Highway                      Baton Rouge, Louisiana 70816                      Robert Lear, P.E. @ 225-298-0800  <a href="mailto:rlear@sigmacg.com">rlear@sigmacg.com</a> </p>	<p>This restoration project in Terrebonne Parish is located on the lower end of Bayou DuLarge between Lake Merchant and Caillou Lake. The project will use borrow material from Lake Merchant to create and nourish marsh on the southern side of Bayou DuLarge, restore the ridge along the southern bank line of Bayou DuLarge, and reestablish historic hydrologic and salinity conditions by installing a structure that reduces the cross-section of Grand Pass and the intrusion of Gulf marine waters into the project area.</p> <p>Eustis Engineering's role in this project included obtaining 45 undisturbed soil borings and cone penetration tests (CPTs) using airboat mounted equipment and truck mounted equipment positioned on a jackup barge. The borings and CPTs extended to depths of 40 to 50 feet below the mudline for the marsh and ridge locations and 120 to 150 feet below the mudline for the Grand Pass structure. The airboat was used whenever possible to minimize detrimental impacts to the marsh environment. Samples obtained from the soil borings were subjected to soil mechanics laboratory tests in accordance with ASTM standards. Testing consisted primarily of classification tests. Beyond these tests, bulk samples of soil dredged from the borrow source were used to conduct settling column tests and self-weight consolidation tests. Eustis Engineering published a geotechnical data report (GDR). Based on the GDR, Eustis Engineering performed engineering design and analyses, published two geotechnical engineering reports, and contributed to the 30% design considering the following project features.</p> <p><b>Grand Pass Closure:</b> Eustis Engineering performed slope stability and settlement analyses to evaluate rock embankment closure concepts and evaluate alternatives using sheetpiles and driven piles for the closure.</p> <p><b>Earth Containment Dikes:</b> Eustis Engineering's team performed stability analyses for three marsh fill elevations to evaluate the geometry required for a stable dike configuration. This included estimates of dike fill consolidation during and after construction, recommendations for setup time required for the newly placed material before dredged fill slurry was placed, sequencing recommendations, and bearing capacity recommendations.</p> <p><b>Marsh Creation Fill Area Design:</b> Settlement analyses were performed for five marsh fill elevations projecting settlement over the 25-year project life. Eustis Engineering's analyses considered settlement</p>

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<b>PROJECT NO. 1</b>		
<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
	<p>during and after construction for scenarios of single-stage, two-stage, and three-stage dredging.</p> <p><b>Earthen Ridge Design:</b> Eustis Engineering performed slope stability and settlement analyses for the ridge configuration. Engineering analyses also included consolidation estimates during construction. Their analyses included two configurations for a gap closure along the ridge alignments.</p>	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
12/2020	Unknown	\$748,350



**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. 2**

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p align="center"> <b>State of Louisiana</b>  <b>Bayou Grande Chenier Marsh and Ridge Restoration (BA-173)</b>  <b>Plaquemines Parish, Louisiana</b>  <b>Eustis Engineering Project No. 22641</b>  <b>Contact Information:</b> </p> <p align="center">           State of Louisiana – CPRA            Post Office Box 44027            Baton Rouge, Louisiana 70804            Julia Wall @ 225-342-7308  <a href="mailto:julia.wall@la.gov">julia.wall@la.gov</a> </p>	<p>The Bayou Grande Chenier Marsh and Ridge Restoration project planned to create 342 acres of marsh and 10,820 linear feet of forested coastal ridge habitat. Both the marsh and forest will be created and nourished by hydraulically dredging material from the Mississippi River. For the marsh, material will be pumped to the designated fill sites. The fill sites will be formed by constructing earthen containment dikes around the boundaries of each marsh creation area, and 8,020 linear feet of tidal creeks will be dredged after construction. The forested coastal ridge will be constructed along Bayou Grande Chenier and will be planted with various trees and plants to reestablish the forest. A final portion of the project site will include an expanded area to the east for potential future marsh creation and/or terracing.</p> <p>Eustis Engineering provided professional services for this project through an IDIQ contract with the Coastal Protection and Restoration Authority (CPRA). We coordinated with CPRA staff and submitted letters to landowners to access the boring locations. The field investigation consisted of a magnetometer survey performed by T. Baker Smith, LLC, where the soil borings and cone penetration tests (CPTs) were planned. Eustis Engineering then obtained eight soil borings with two being made in the marsh fill area, three in the proposed ridge location, and three in the potential marsh creation area. Sixteen CPTs were made for the project with ten in the marsh fill area, two in the proposed ridge area, and four in the potential marsh creation area. Global Positioning System data were collected at all sample locations using a handheld GPS unit identifying geodetic coordinates in latitude and longitude. The boring and CPT locations were accessed using marsh buggy equipment.</p> <p>Samples obtained in the field were classified using the Unified Soil Classification System. Classification tests included Atterberg limits determinations and grain size analyses (sieve and hydrometer). Strength tests included miniature vane shear, unconfined compression shear, and unconsolidated undrained triaxial compression shear. Consolidation testing was also performed. In an effort to save time and money, Eustis Engineering also sampled freshly placed dredged material from the Mississippi River that was being pumped to an adjacent cell (Lake Hermitage project). This sampling took place while on site performing the borings and CPTs. Eustis Engineering performed all laboratory testing in-house, which included self-weight consolidation testing and settling column testing. We were able to expedite testing and ensure the highest quality of testing because we</p>

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<b>PROJECT NO. 2</b>		
<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
	<p>used our own resources for these tasks and did not subcontract these testing services to a third party.</p> <p>Our engineering analyses encompassed the three areas of exploration including earthen containment dike and terrace design, marsh creation fill area design, and earthen ridge design. These analyses included maximum construction elevation, slope stability analyses, time-rate of consolidation, settlement curves, long term settlement analyses, dewatering and shrinkage recommendations, and construction sequencing recommendations.</p>	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
03/2016 (A)	Unknown	\$235,300



**TEC Professional Services Questionnaire**

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

**PROJECT NO. 3**

<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>
<p align="center"> <b>State of Louisiana</b>  <b>Mid-Barataria Sediment Diversion Project</b>  <b>Mississippi River Mile 60.7 AHP</b>  <b>Plaquemines and Jefferson Parishes,</b>  <b>Louisiana</b>  <b>CPRA Contract No. 4400013603</b>  <b>CPRA Project No. BA-153</b>  <b>Eustis Engineering Project No. 23325</b> </p> <p align="center"> <b>Contact Information:</b>                      State of Louisiana – CPRA                      Through AECOM                      1515 Poydras Street, Suite 2700                      New Orleans, Louisiana 70112                      Mark Gonski @ 504-799-1332  <a href="mailto:Mark.gonski@aecom.com">Mark.gonski@aecom.com</a> </p>	<p>The Mid-Barataria Sediment Diversion (MBSD) project is being designed to strategically reintroduce sediment and nutrients from the Mississippi River into the Barataria Basin. MBSD is an estimated \$1.3 billion project and the Coastal Protection and Restoration Authority's (CPRA) signature project of the 2017 Coastal Master Plan. It is a Construction-Manager-At-Risk (CMAR) project delivery method where the engineering and design (E&amp;D) team is co-located with the CMAR and CPRA throughout the E&amp;D process. Eustis Engineering is the lead geotechnical engineer for the E&amp;D team. The MBSD project will sustainably create approximately 15,000 acres of land in the Barataria Basin over the long term. The CPRA proposes to construct the diversion intake and control structure through the Mississippi River levee on the western side of the Mississippi River at approximate River Mile 60.7 AHP in Plaquemines Parish, Louisiana. The diversion outfall will be constructed through the future NOV levee into The Barataria Basin, allowing sediment-laden water from the Mississippi River to flow into the Barataria Basin. Key project features include a river inlet and diversion control structure; a conveyance channel; an outfall transition feature; site forced drainage including siphon and sluice gate structures; LA Highway 23 Bridge and Approaches; and the New Orleans and Gulf Coast Railroad Bridge and approaches.</p> <p>The 15% Basis of Design phase began in December 2017 and was completed in October 2018. The 30% Design phase was completed in November 2019 and included issuing a Design Documentation Report and a Geotechnical Engineering Report. After the 30% submittal, the CPRA initiated a Value Engineering phase that began in January 2020. Eustis Engineering's activities throughout these phases have included: serving as the permitting agent for the CPRA and obtaining a Coastal Use Permit and Section 10/404 Permits from the U.S. Army Corps of Engineers (USACE) for performing soil borings and cone penetration tests (CPTs); developing a detailed project design criteria document; participating in a semi-quantitative risk analysis (SQRA) and workshop with the design team, CMAR, CPRA, and USACE; writing a SQRA Risk Report; helping develop and update the project risk register; obtaining CPTs and borings (3-in. and 5-in. diameter) on land and in the Barataria Basin between July and November 2018; soil laboratory testing including advanced shear strength testing (direct simple shear); and engineering analyses/design of the various project features. Eustis Engineering obtained 162 borings (3-in and 5-in diameter) and 98 CPTs for the three exploration phases (15%, 30% and 60%).</p>

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<b>PROJECT NO. 3</b>		
<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
	<p>Eustis Engineering has taken a lead role in developing geotechnical testing and instrumentation plans and specifications for two full-scale levee wick drain test sections. These test sections are necessary to improve the understanding of levee settlement, gain-in-foundation shear strength, and levee staged-construction schedule. These test levees and the associated instrumentation and monitoring began in 2019 and will be complete by May 2021. The 60% design phase, including issuing the request for the 408 Permit to the USACE, will be complete by the fall of 2021. The 100% design will be complete by year end 2022 with an early works construction package beginning in the summer of 2022.</p>	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
09/2021 (A)	Unknown	\$67,300



**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. 4**

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p align="center"> <b>U.S. Department of Agriculture</b>  <b>North Catfish Lake Marsh Creation (TE-112)</b>  <b>Region 3: Terrebonne Basin</b>  <b>Lafourche Parish, Louisiana</b>  <b>Eustis Engineering Project No. 24000</b> </p> <p align="center"> <b>Contact Information:</b>                      Ducks Unlimited, Inc.                      806 Bayou Black                      Houma, Louisiana 70360                      Joe Fifer, P.E. @ 985-853-3005  <a href="mailto:jfifer@ducks.org">jfifer@ducks.org</a> </p>	<p>The objective of this restoration project is to use borrow material from Catfish Lake to create and nourish brackish marsh habitat along the northern half of Catfish Lake. Sediments will be hydraulically excavated from the lake and placed to create 411 acres of marsh habitat (currently open water) and nourish an additional 255 acres of marsh habitat (currently fragmented marsh). The marsh creation areas will utilize earthen containment dikes to contain hydraulically excavated material into the cells. This project is a cooperative endeavor between Ducks Unlimited and the Natural Resources and Conservation Service.</p> <p>Eustis Engineering's field investigation included 37 undisturbed soil borings using an airboat mounted drill rig. Fourteen borings were performed inside the marsh creation areas to depths of 40 feet below the mudline; nineteen borings were made along the centerline of the proposed earthen containment dike to 50 feet below the mudline. The four remaining borings extended to 30 feet below the mudline in the borrow area.</p> <p>Following the field investigation, soil mechanics laboratory tests were performed on samples in accordance with ASTM standards. Additional tests were performed on samples collected in the borrow areas. These tests included one column settling test and three self-weight consolidation tests to estimate the amount of marsh fill required to be pumped into the marsh creation areas.</p> <p>Engineering analyses of the marsh creation fill area included settlement estimates and settlement curves for up to five marsh fill elevations projecting settlement over the 20-year project life considering the combined effect of settlement of the subsurface soils and self-weight consolidation of the dredged fill material. Dewatering and shrinkage recommendations for the fill materials were also provided.</p> <p>Engineering analyses for the containment dikes design included slope stability analyses with and without marsh fill to evaluate the geometry required for stable dike configurations (construction elevation, acceptable side slopes, and acceptable crown width) and geotextile requirements (if any). Other analyses included estimates of dike fill consolidation during construction, development of settlement curves; recommendations related to setup time required for the newly placed material before dredged fill slurry was placed in the containment area; construction sequencing recommendations; and bearing capacity</p>

<b>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.</b>		
<b>PROJECT NO. 4</b>		
<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
	<p>recommendations. Eustis Engineering performed several iterations of settlement analyses and presentation of settlement during and after construction of the marsh creation areas. These results were shared with Ducks Unlimited and ultimately published in a geotechnical engineering report in December 2020.</p>	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
06/2021 (A)	Unknown	\$340,050



**TEC Professional Services Questionnaire**

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**PROJECT NO. 5**

<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>
<p align="center"> <b>State of Louisiana</b>  <b>Grande Chenier Ridge Marsh Creation</b>  <b>Plaquemines Parish, Louisiana</b>  <b>CPRA Contract No. 440001538</b>  <b>CPRA Project No. BA-0240</b>  <b>Eustis Engineering Project No. 24364</b> </p> <p align="center"> <b>Contact Information:</b>                      State of Louisiana – CPRA                      The Water Campus                      150 Terrace Avenue                      Baton Rouge, Louisiana 70802                      Tye Fitzgerald, P.E. @ 225-342-7308  <a href="mailto:Tye.fitzgerald@la.gov">Tye.fitzgerald@la.gov</a> </p>	<p>The purpose of the Grande Chenier Ridge Marsh Creation Project (BA-0240) is to create 600 acres of marsh and 10,820 linear feet of coastal ridge habitat by hydraulically dredging material from the Mississippi River borrow source. Significant marsh loss has occurred in this area due to construction of numerous oil and gas canals, subsidence, and sediment deprivation. The hope is marsh creation areas will be formed with the construction of earthen containment dikes around the boundaries of each proposed area using material excavated from adjacent borrow canals.</p> <p>Five undisturbed soil borings and twelve cone penetration tests were performed within the marsh creation area (MCA). The soil borings extended to depths of 20 and 40 feet below the mudline. The CPTs were performed to depths of 36 to 40 feet below the mudline. Before our field operations, Eustis Engineering subcontracted T. Baker Smith, LLC, to perform a magnetometer survey at each boring and CPT location to ensure no pipelines or obstructions existed at the exploration points. Access for the MCA was via marsh buggy and air boat. Eustis Engineering also completed marine borings from a jack-up-barge within the Mississippi River (under a separate task order) to evaluate the proposed borrow source to be hydraulically dredged and pumped to the MCA. Once the field operations were completed, soil mechanics laboratory tests were performed on select, representative samples from the MCA. Testing included natural water content, unit weight, one-point unconsolidated undrained triaxial compression shear, Atterberg limits determinations, organic content tests, specific gravity, grain size analysis, percent passing the U.S. Standard No. 200 sieve, and consolidation tests. These results were transmitted as a Geotechnical Data Report.</p> <p>Our engineering scope of work included evaluation of the marsh creation fill cells, earthen containment dikes design, ridge design, estimates of settlement, and slope stability analyses. Engineering analyses were performed using soil boring and laboratory test data from the current and previous explorations [October 2007 (BA-0042) and December 2015 (BA-0173)]. We also provide recommendations regarding site preparation and general construction recommendations relevant to our geotechnical design assumptions.</p> <p>More specifically, our engineering analyses of the MCA have included settlement estimates and settlement curves for furnished marsh fill elevations which project settlement over a 20-year project life. Engineering analyses for the earthen containment dikes and the</p>

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**PROJECT NO. 5**

<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
	<p>earthen ridge included slope stability analysis with and without marsh fill to evaluate the geometry required for stable configurations (construction elevation, acceptable side slopes, and acceptable crown width), geotextile requirements, estimates of dike fill consolidation during construction, construction sequencing recommendations, and bearing capacity assessments. These recommendations were issued in a draft Geotechnical Engineering Report (GER). Comments from CPRA will be incorporated in the final GER.</p>	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
07/2020 (A)	Unknown	\$110,650



**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. 6**

<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>
<p align="center"> <b>State of Louisiana</b>  <b>Grande Bayou Ridge and Marsh Restoration</b>  <b>Plaquemines Parish, Louisiana</b>  <b>CPRA Contract No. 4400015385</b>  <b>CPRA Project No. BA-0217</b>  <b>Eustis Engineering Project No. 24365</b> </p> <p align="center"> <b>Contact Information:</b>                      State of Louisiana – CPRA                      150 Terrace Avenue                      Baton Rouge, Louisiana 70802                      Tye Fitzgerald, P.E. @ 225-342-7308                      tye.fitzgerald@la.gov                 </p>	<p>The Grand Bayou Ridge and Marsh Restoration Project (BA-0217) will create approximately 344 acres of marsh; 25,000 linear feet of terraces; and 10,657 linear feet of coastal ridge habitat by hydraulically dredging material from a Mississippi River borrow source and utilizing in situ materials from Grand Bayou. The marsh creation areas will be formed by constructing earthen containment dikes around the boundaries of each proposed area using material excavated from adjacent borrow canals. The project will adhere to CPRA's Geotechnical Standards, Marsh Creation and Coastal Restoration Projects (Version 1.0) engineering and design standards.</p> <p>Thirty-one locations were identified for drilling and testing in the project area. Six of the locations were designated as co-located soil borings and cone penetration tests (CPTs). These locations also correspond to those identified in a Coastal Use Permit obtained by CPRA. The borings and CPTs varied between 20 and 40 feet in depth. The borings were made using drilling equipment mounted on a marsh buggy; the CPTs were made using an airboat. Mobilization for this task order was combined with the nearby BA-0240 project to provide economy. As part of our field investigation, Eustis Engineering's personnel coordinated with landowners, the U.S. Army Corps of Engineers, and appropriate levee boards. Eustis Engineering teamed with T. Baker Smith, LLC, to complete a hazard survey and provide locations and elevations for each boring/CPT. In the laboratory, samples were classified using the Unified Soil Classification System. Testing has included moisture content, unit weight, one-point unconsolidated undrained triaxial compression shear, Atterberg limits determinations, organic content, sieve and hydrometer analyses, and consolidation tests. Field and laboratory test results were summarized in a Geotechnical Data Report (GDR). Note that samples of the Mississippi River borrow source were obtained and tested under separate task order to provide soil characteristics for design.</p> <p>Our staff is currently performing engineering analyses for the earthen containment dikes, earthen ridge feature, earthen terrace design, and marsh creation fill area. These analyses will include stability analyses to evaluate the geometry required for stable configurations of the dike, ridge, and terrace designs; estimates of fill consolidation settlement during construction of these same features; settlement curves (including immediate and consolidation settlement) of the subsurface soils; and construction sequencing recommendations. Marsh creation fill area designs require engineering analyses associated with evaluation of both primary and secondary</p>

<b>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.</b>		
<b>PROJECT NO. 6</b>		
<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
	consolidation settlement of the subsurface soils due to placement of sand as well as the projected settlement during construction and up to 20 years after construction. All data will be presented in accordance with the Louisiana Sand Resource Database's Standard Operating Procedures for Geo-Scientific Data Management.	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
08/2020 (A)	Unknown	\$165,350



**TEC Professional Services Questionnaire**

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

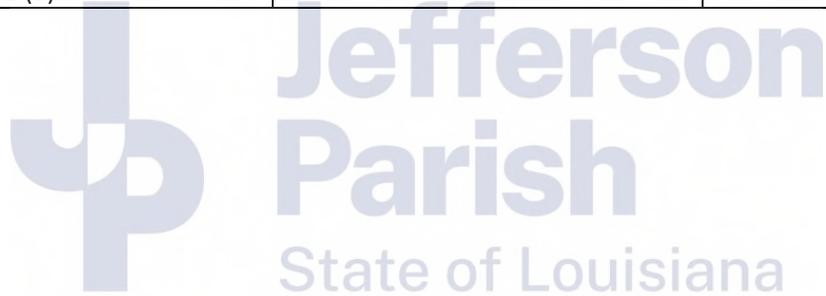
**PROJECT NO. 7**

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p align="center"> <b>State of Louisiana</b>  <b>15% Design Phase</b>  <b>Maurepas Diversion and</b>  <b>West Shore of Lake Pontchartrain</b>  <b>St. John the Baptist Parish, Louisiana</b>  <b>Eustis Engineering Project No. 24384</b> </p> <p align="center"> <b>Contact Information:</b>                      State of Louisiana – CPRA                      Through AECOM                      1515 Poydras Street, Suite 2700                      New Orleans, Louisiana 70112                      Clay Loyless, P.E. @ 504-799-1324  <a href="mailto:clay.loyless@aecom.com">clay.loyless@aecom.com</a> </p>	<p>Eustis Engineering's scope of service includes review of existing geotechnical data, development of a geotechnical data collection plan, collection of new geotechnical data, laboratory analyses, development of geotechnical soil design reaches, and preparation of geotechnical design recommendations for the future flood protection and freshwater diversion. Our services focus on the freshwater diversion and the flood protection features associated with the U.S. Army Corps of Engineers' (USACE's) West Shore of Lake Pontchartrain (WSLP) alignment. The WSLP geotechnical exploration and analyses need to meet requirements for a 1% storm. Thus, all designs will be performed in accordance with the interim Hurricane and Storm Damage Risk Reduction System Design Guidelines (HSDRRS). The geotechnical exploration work to date was completed to define soil and foundation conditions along the future WSLP levee alignment as well as information for the diversion beyond the area of the WSLP.</p> <p>AECOM furnished available historical data, analyses, and reports to Eustis Engineering for review. In addition to the furnished data, Eustis Engineering performed additional field exploration to provide current soil conditions at the site to achieve HSDRRS requirements for the future levee and structural foundations. The field exploration comprised twelve 5-in. diameter soil borings and eight cone penetration tests. The 4-ft undisturbed sample tubes were extruded in the laboratory, divided, and tested in general accordance with standards followed by the USACE for the other portions of the WSLP alignments. Our soil mechanics tests comprised unconfined compression shear; one and three-point unconsolidated undrained triaxial compression shear; direct simple shear; consolidation; Atterberg limits determinations; organic content determinations; and sieve and hydrometer analyses.</p> <p>Using these data, the Maurepas Diversion was separated into three soil design reaches by our engineering staff. Subsurface conditions and design parameters were included in the initial draft report. Ongoing efforts will comprise deep seated global stability analyses; unbalanced force determinations for T-walls; piping cutoff designs; uplift analyses; allowable pile load capacity estimates per the USACE-HSDRRS for T-wall structures; allowable pile load capacity estimates per LaDOTD for Airline Highway; development of lateral load soil design parameters for foundation piles (e.g., subgrade moduli, LPILE parameters, etc.) of foundations subject to unbalanced loading; preparation of Geotechnical Design Reports and supporting information for the Design Documentation Report; levee stability analyses with estimates</p>

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

**PROJECT NO. 7**

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	<p>of strength gain during and after construction; reinforcing geotextile strength and width based on the 2070 design elevations; settlement curves to year 2070; estimates of Settlement Induced Bending Moments (SIBM) at multiple future tie-in locations along with recommendations for mitigating such effects; ground improvement programs by use of wick drain fields and preload/surcharge embankments at multiple sites; conceptual TRS designs at each future structure location; utility relocation design recommendations pertaining to geotechnical requirements; Maurepas Diversion Channel stability designs; LaDOTD standard pavement designs; and development and coordination of submittals for 35%, 65%, 95%, and 100% design stages including comment review and resolution.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
12/2022 (E)	Unknown	\$410,300



**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. 8**

<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>
<p align="center"> <b>State of Louisiana</b>  <b>East Delacroix Marsh Creation Project</b>  <b>St. Bernard Parish, Louisiana</b>  <b>CPRA Contract No. 4400015385</b>  <b>CPRA Project No. BS-0037</b>  <b>Eustis Engineering Project No. 24431</b> </p> <p align="center"> <b>Contact Information:</b>                      State of Louisiana – CPRA                      150 Terrace Avenue                      Baton Rouge, Louisiana 70802                      Jessica Diez @ 225-342-1477  <a href="mailto:jessica.diez@la.gov">jessica.diez@la.gov</a> </p>	<p>The BS-0037 project will create 406 acres of confined marsh by hydraulically dredging material from a borrow source in nearby Lake Lery. The marsh creation areas will be formed by constructing earthen containment dikes around the open perimeter. The existing tidal levee will be utilized to provide approximately 12,950 feet of terraces. The project will adhere to the geotechnical standards in CPRA's Marsh Creation and Coastal Restoration Projects Design Guidelines.</p> <p>Prior to beginning any field work, Eustis Engineering's personnel contacted landowners; coordinated with them for site access; coordinated with the St. Bernard Parish's Public Works Department; contacted Louisiana One Call to clear underground utilities; had our subcontractor, T. Baker Smith, LLC, perform magnetometer and hazard surveys; and notified the CPRA, USACE, and U.S. Coast Guard of our start date. Once in the field, Eustis Engineering drilled soil borings to depths of 15 feet in the Lake Lery borrow area; one boring and six cone penetration tests (CPTs) to 40 feet at the Delacroix Tidal Levee; and six soil borings and twelve CPTs to depths of 30 feet in the marsh creation area and terrace field. The borrow borings were made using a drill rig mounted onto pontoons. The marsh creation and terrace field borings and CPTs were made using airboat mounted equipment. Finally, our track mounted equipment was utilized for borings and CPTs along the existing tidal levee. Soil mechanics laboratory tests have been initiated on this project and include natural water content, visual classification, unit weight, unconfined compression shear, one-point unconsolidated undrained triaxial compression shear, Atterberg limits determinations, organic content, sieve and hydrometer analyses, and consolidation tests. A composite sample of the borrow borings will be developed for the performance of low stress consolidation and settling column tests.</p> <p>Engineering analyses include:</p> <ul style="list-style-type: none"> <li>• marsh fill settlement (fill and foundation settlement analyses on the composite slurry and subsurface soil profiles);</li> <li>• design of the earthen containment dikes (settlement analyses of the foundation material as well as slope stability analyses of the containment dikes);</li> <li>• tidal levee (design services to ensure the tidal levee will contain the dredged slurry material, an assessment of the materials, an assessment of the suitability of raising the levee, and slope stability analyses to evaluate the levee's stability with dredged fill material); and</li> <li>• earthen terrace (settlement analyses of foundation material as well as slope stability analyses of the earth terrace design).</li> </ul>

**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. 8**

<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
	Eustis Engineering has coordinated extensively with the CPRA engineers on various parametric analyses affecting the constructed marsh fill elevations (CMFEs) of the proposed marsh creation and marsh nourishment areas.	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
01/2021 (A)	Unknown	\$138,850



**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.**

<b>PROJECT NO. 9</b>		
<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p align="center"> <b>State of Louisiana</b>  <b>Grand Isle State Park</b>  <b>Phase II Improvements</b>  <b>Jefferson Parish, Louisiana</b>  <b>Eustis Engineering Project No. 24093</b> </p> <p align="center"> <b>Contact Information:</b>                      State of Louisiana – CPRA                      Through GIS Engineering, L.L.C.                      197 Elysian Fields                      Houma, Louisiana 70363                      Jacob Loeske, P.E. @ 985-219-1000  <a href="mailto:jloeske@gisy.com">jloeske@gisy.com</a> </p>	<p>Phase II of the project comprises repairs and upgrades stemming from damages due to repeated flooding.</p> <p>Our geotechnical exploration and engineering recommendations focus on reconstruction of a rock jetty and deep foundation design for extension of a fishing pier at the Grand Isle Park. Eustis Engineering's field exploration included the performance of two marine-based soil borings to obtain samples of the various strata encountered at the rock jetty and at the fishing pier. The borings extended to depths of 50 and 100 feet below the mudline.</p> <p>Laboratory testing services included visual classification and natural water content determinations to aid in the classification of the soil samples along with soil mechanics laboratory tests including natural water content, unit weight, unconfined compression shear, unconsolidated undrained triaxial compression shear, Atterberg limits determinations, and grain size distributions.</p> <p>Fishing pier upgrades comprise an extension of the existing pier into the Gulf of Mexico by approximately 400 feet. Eustis Engineering will develop estimates of allowable axial and lateral pile load capacity to support the new pier foundations. We will provide estimates of allowable soil bearing capacity, deep-seated stability assessments, and general construction recommendations for the reconstruction of a rock jetty at the site as well.</p>	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
05/2019 (A)	Unknown	\$6,700

**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. 10**

<b>Project Name, Location, and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Ducks Unlimited, Inc.</b>  <b>Marsh Island Refuge</b>  <b>Water Control Structure Replacements</b>  <b>Belly Dam, Joe Aucoin, and</b>  <b>Northeast Bird Island</b>  <b>Iberia Parish, Louisiana</b>  <b>Eustis Engineering Project No. 24170</b></p> <p><b>Contact Information:</b>                      State of Louisiana Through                      Ducks Unlimited, Inc.                      915 Front Street                      Richmond, Texas 77469                      John Hetherwick @ 832-595-0063  <a href="mailto:jhetherwick@ducks.org">jhetherwick@ducks.org</a></p>	<p>Three flood control structures were planned for construction. The Joe Aucoin West Weir and the Belly Dam Weir replaced existing structures, while the NE Unit Structure was a new flood control structure. The Joe Aucoin West Weir comprised a 156-ft long sheetpile wall with varying height. The Belly Dam Wier comprised a 122-ft long sheetpile wall with varying height. The NE Structure comprised a 126-ft long sheetpile wall with uniform height. Each of three weirs were planned with three 48-in diameter openings with variable crest weir boxes and flap gates. Each weir box would be 21 feet long and supported by piles.</p> <p>Our drill rig, mounted on a pontoon boat, mobilized to each site to drill one soil boring to a depth of 50 feet below the mudline. Representative samples collected in the field were sealed in moisture proof containers for transportation to our laboratory. Once in our lab, soil mechanics laboratory tests were performed on these samples to classify the soils and determine their characteristics.</p> <p>Engineering analyses and recommendations, based on our field and laboratory data, included site preparation, foundation recommendations associated with proposed sheetpile walls for each structure, flood control analyses and recommendations, local stability of the proposed replacement water control structures, global stability of the proposed channel at the NE Unit Structure, and allowable load capacities for timber piles to support the weir boxes.</p>	
<b>Completion Date (Actual or Estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for Which Firm Was Responsible:</b>
11/2019 (A)	Unknown	\$33,500

**TEC Professional Services Questionnaire**

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

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. None at this time.		
2.		
3.		
4.		

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

When Eustis Engineering opened its first office in Vicksburg, Mississippi, in 1946, it housed its entire operation in less than 500 square feet of space. *Seventy-five 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 two-man office to approximately 100 individuals, 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 Lafayette and Baton Rouge, Louisiana; in Gulfport, Mississippi; and in 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:

- exploration (drilling of soil borings and cone penetration testing),
- soil mechanics laboratory tests,
- field instrumentation and monitoring,
- laboratory and field testing of California Bearing Ratio (CBR)
- dynamic pile testing and non-destructive testing of piles/shafts,
- geotechnical engineering design, and
- construction quality control and materials testing services.

Eustis Engineering has worked on over 800 geotechnical and construction materials testing projects for Jefferson Parish Government over the past 70 years, many of which have involved marsh and ridge restoration, shoreline stabilization and protection, and analysis of dredge material for various uses. This work history gives our engineering staff unparalleled familiarity with the unique soft soil conditions not only of coastal southern Louisiana, but Jefferson Parish specifically.

**ENGINEERING SERVICES**

Eustis Engineering's staff has extensive experience in a wide range of projects including coastal protection (e.g., levees, floodwalls, and gates), marsh creation, sediment delivery systems, riverine sand mining, terracing, vegetative ridges, shoreline protection, island restoration, bulkheads, weirs, roads, bridges, docks, and drainage structures. We are

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

experienced in working in marsh areas, evaluating disposal sites, and designing retention dikes and support of weirs necessary for the retention of dredged materials. We have designed rock jetties developing methodologies to estimate sinkage during construction to quantify materials and adequately size the width necessary for subgrade conditions.

Our detailed engineering reports for these types of projects contain analyses and recommendations for temporary retaining structures, dewatering, and pressure relief for construction. Temporary retaining structure recommendations, as well as recommendations for floodwalls, include analyses for cantilever, anchored, and multi-braced sheetpile structures.

Eustis Engineering has engineering capabilities to fulfill the requirements of nearly any project. We routinely process and support permit applications; perform technical evaluations; and provided cost estimates, design analysis, and reports. We can also provide supporting documentation for coastal grants and assist in outreach and educational efforts.

We evaluate requirements for shoring during construction. We have developed pile capacity and bearing capacity analyses for projects throughout the coastal areas of the United States. We have evaluated base preparation of excavations including bridge lifts and bedding stone, including material and compaction requirements. 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.

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.

Our capabilities extend to performance of deep-seated global stability analyses for structures (T-walls and I-walls) according to the standards of the Hurricane and Storm Damage Risk Reduction System Design Guidelines, Louisiana Flood Protection Design Guidelines, and the CPRA's Marsh Creation Design Guidelines, using Spencer's Method as coded in SLOPE/W and the LMVD Method of Planes as coded in UPLIFT. These programs are also used for the design and verification of levees, reinforced embankments, revetments, channel slopes, and open excavations.

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

Finally, Eustis Engineering has performed seepage analyses for evaluation of heave, uplift, and piping. We use EM 1110-2-1913, EM 1110-2-1901, and DNR 1110-1-400 for manual calculations that consider blanket theory. We also use SEEP/W for a computer model and typically compare the results of manual calculations to the SEEP/W model as a quality assurance procedure.

**Engineering Staffing**

Eustis Engineering's staff has extensive experience in a wide range of geotechnical engineering projects directly relevant to the RFQ including marsh creation and other coastal restoration projects. Our engineering staff has 15 Master's degrees in Civil Engineering, Engineering, Engineering Management, and Business Administration. Participation in post Bachelor of Science curricula, as well as continuing education and professional registration that emphasizes engineering

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

management and technical issues, are very important to Eustis Engineering. Our engineers also regularly present in technical conferences. We fund our staff for these activities and programs.

Employee	Education	Experience	
		Years with Eustis Engineering	Total Years
<b>Professional Engineers (P.E.)</b>			
Benjamin M. Cody	M.S. / Civil Engineering	20	24
Brian A. Deschamp	B.S. / Civil & Environmental Engineering	10	10
	B.A. / Business Administration		
Lars A. Erickson	B.S. / Civil & Environmental Engineering	5	5
	Coastal Engineering Certificate		
James J. Hance	M.S. / Civil Engineering	18	22
	M.B.A. / Business Administration		
Chad L. Held	M.S. / Civil Engineering	30	30
David J. Indest	M.S. / Civil Engineering	20	20
Matthew K. Morales	B.S. / Civil Engineering	13	13
Travis R. Richards	M.S. / Engineering	16	23
	M.S. / Engineering Management		
	Coastal Engineering Certificate		
Gwendolyn P. Sanders	M.S. / Engineering	29	29
Shaun R. Simon	M.S. / Civil Engineering	21	21
Patrick A. Thurmond	M.S. Engineering Management	6	6
	M.S. / Civil Engineering		
	Coastal Engineering Certificate		
Sean G. Walsh	M.S. / Civil Engineering	9	14
Benjamin G. Weinberg <sup>(1)</sup>	B.S. / Civil & Environmental Engineering	2	9
	M.B.A. / Business Administration		
James M. Williams	M.S. / Civil Engineering	3	4
Henry C. Worley	B.S. / Civil Engineering	4	5.5
	Coastal Engineering Certificate		
<b>Engineering Interns (E.I.)</b>			
Scot J. Breaux, Jr.	B.S. / Civil and Environmental Engineering	0	0
Patrick T. Duckworth	M.S. / Civil Engineering	1	1
Tomas K. Morales <sup>(2)</sup>	B.S. / Civil Engineering	8	8
Joel R. Smith	B.S. / Civil Engineering	1	5

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

Employee	Education	Experience	
		Years with Eustis Engineering	Total Years
<b>Engineering Graduates</b>			
Lesley L. Reitmeyer	B.S. / Civil Engineering	12	12
Sean T. Smith	B.S. / Civil Engineering	5	5
<b>Geologists</b>			
Matthew J. Blasini, G.I.T.	B.S. / Geology	1	2
Nathan A. Quick, P.G.	B.S. / Geology	0	5.5
	M.S. / Geology		
<b>Total Years of Experience</b>		<b>234</b>	<b>274</b>

- (1) P.E. in additional states beyond those being applied for in this submittal.
- (2) Long Term Subcontractor

*Reviewing our table, the majority of Eustis Engineering's professional engineers have at least ten years of experience in geotechnical engineering. All but one of our professional engineers are licensed in the State of Louisiana.*

**Cone Penetration Testing Capabilities**

Eustis Engineering owns two dedicated track mounted CPT rigs and operates four other multi-purpose rigs that can perform CPTs. Operators are either specifically trained engineering technicians or engineers who perform the 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 and using CPT technology since the early 2000s.

A CPT can be accomplished rapidly with four or five being made in the same time frame as a standard geotechnical boring. Therefore, the CPT is 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 and closed end steel pipe piles; and steel H-piles.

We often upgrade our data collectors and operate four Pile Driving Analyzers® (PDAs) - two PAX units and two 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 have used underwater gauges to monitor pile driving in marine environments when the pile head descends below the water surface.

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

To support our four PDA units, Eustis Engineering maintains an extensive inventory of calibrated gauges and accessories. To provide quality assurance and rapid response 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 SPT hammers on our drill rigs.

**Other Non-Destructive Testing Capabilities**

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

**INSTRUMENTATION**

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

Eustis Engineering provides the following instrumentation services:

- Vibrating wire devices including piezometers, extensometers, settlement gauges, and strain gauges
- Data loggers to enable periodic collection of data for vibrating wire devices
- Data links for remote web access to 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**

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.

**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 on land, and in water and marsh environments as indicated in the following table.

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

Capabilities of Eustis Engineering's Drill Staff	Scott Bombard	Jordon Brightwell	James Cordes	Rene Davidson	Robert Dupuy	Eric Held	James Lubben	George Reitmeyer	Lawrence Rome	Michael Whipkey
Hand Auger Borings	X	X	X	X	X	X	X	X	X	X
General Type (3-in. Diameter Borings)	X	X	X	X	X	X	X		X	X
General Type (3-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)	X	X	X	X		X	X		X	
Undisturbed Type (5-in. Diameter Borings)	X	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	
Location Information ( Latitude, Longitude)	x	X	X	X	X	X	X	x	X	X
Set Permanent Benchmarks		X	X	X		X	X		X	
Install Instrumentation		X	X	X		X	X		X	
Cone Penetration Tests						X		X		
Geoprobe® Sampling	X		X		X	X	X		X	X

**Drilling Equipment**

Eustis Engineering owns and operates six wet rotary drill rigs, both truck 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 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 Equipment**

We 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 penetrometer (DCPT) to assess the in situ strength of undisturbed soils and compacted materials in accordance with ASTM D6951.

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

**LABORATORY SERVICES**

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

Eustis Engineering has also recently 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 will provide Eustis Engineering's team members access to a data source via connected applications or a web portal, increasing collaboration and efficiency. The 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 easily customized worksheets and reports.

Technical testing common to our laboratories includes ASTM, ACI, LaDOTD, AASHTO, FAA, and USACE. Our laboratories hold accreditations from AASHTO, LaDOTD, and the USACE.

Laboratory Staffing

Eustis Engineering currently has more than a dozen technicians to 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 U.S. Army Corps of Engineers, 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
Asphalt	Aggregate	Asphalt
Concrete	Soil	Concrete
Masonry	Spray Fire-Resistive Material	Soil
Soil		Spray Fire-Resistive Material

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

To show further that 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, and we also have a Quality Control Manager who oversees the calibration of our equipment. The biggest reward of our quality measures is knowing that our clients are confident that our testing laboratory produces the highest quality results and conforms to national and international standards.

**EVALUATION CRITERIA**

**Professional Training and Experience.** Our staff includes eight project managers and senior project managers with a supporting staff of project engineers, engineering interns, engineering technicians, and geologists. The majority of our engineering staff has worked on government-related Jefferson Parish projects during their tenure with Eustis Engineering. Eustis Engineering currently has 15 professional engineers, 14 of whom are registered in the State of Louisiana.

**Capacity for Timely Completion.** Our engineering staff has extensive experience in a wide range of projects to meet the needs of Jefferson Parish. Our staff size allows diversification and appointment of teams to meet our commitments on projects in a timely and professional manner. We believe Eustis Engineering has demonstrated that we have sufficient capability and capacity to provide geotechnical services under this SOQ.

**Location of the Principal Office Where Work will be Performed.** Work under this advertisement will be performed by Eustis Engineering's main office located just off the I-10 Service Road and Causeway Boulevard in the heart of Jefferson Parish.

**Adversarial Legal Proceedings with the Parish.** At this time, Jefferson Parish and Eustis Engineering have no ongoing adversarial legal proceeding between our entities.

**Prior Successful Completion of Projects Requiring Soils Investigation Services for Which Firm has Provided Verifiable References.** Eustis Engineering has provided geotechnical services for more than 2,600 projects in Jefferson Parish during our 75 years in business. Some of these projects include:

- Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Plaquemines and Jefferson Parishes, Louisiana;
- Lafitte Area Independent Levee District, Lafitte Tidal Protection, Rosethorn Basin – Phase I Frontal Levee Along Bayou Barataria;
- Lafitte Area Independent Levee District, Fisher School Basin – Tidal Protection Along Bayou Barataria;
- National Park Service, Jean Lafitte National Historical Park and Preserve, Barataria Preserve Unit;
- Coalition to Restore Coastal Louisiana and Pontchartrain Levee District – Salinity Barrier, Interstate 10 at Interstate 310, Jefferson Parish – St. Charles Parish line;
- Veterans Boulevard Drainage Pump Stations;
- Hoey's Canal Drainage Improvements;
- 17<sup>th</sup> Street Canal Drainage Improvements, Airline Highway to Hoey's Canal;
- Instrumentation Installation and Monitoring, Lapalco Boulevard Overpass at Bayou Segnette; and
- Grand Isle State Park, Phase I and II Improvements.

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

**Our References for these Projects Include:**

Laura L. Barnes, P.E. GIS Engineering, L.L.C. 197 Elysian Drive Houma, Louisiana PN 985-219-1048	Randy M. Perrin, E.I. U.S. Army Corps of Engineers Post Office Box 60267 New Orleans, Louisiana 70160 PN 504-862-1121
Anthony Goodgion, P.E. Linfield, Hunter & Junius, Inc. 3608 18 <sup>th</sup> Street Metairie, Louisiana 70002 PN 504-833-5300	Mark Gonski, P.E. AECOM 1515 Poydras Street Suite 2700 New Orleans, Louisiana 70112 PN 504-799-1332
Joe Fifer, P.E. Ducks Unlimited, Inc. 806 Bayou Black Houma, Louisiana 70360 PN 985-853-3005	Bruce Adams, P.E. Volkert Inc. 3801 Canal Street Suite 210 New Orleans, Louisiana 701189 PN 504-865-0456

**Size of Firm.** This table represents all full time and part time employees of Eustis Engineering as well as our subcontract employees.

POSITION	Metairie	Baton Rouge	Lafayette	Louisiana	Gulfport	Houston	Total Personnel by Position
Professional Engineers (P.E.)	11	1	1	13	2	1	16
Engineering Intern (E.I.)	3			3			3
Engineering Students/Graduates	2			2			2
Geologist	1	1		2			2
AutoCAD Technician	1			1			1
Accounting/Clerical/HR/Marketing	14	1	1	16	1		17
Drilling Personnel	17			17		2	19
Laboratory Personnel	6			6	1		7
CMT Personnel	23	4		27	2	2	31
Safety Manager	1			1			1
Operations Manager	1			1			1
<b>Totals</b>	<b>80</b>	<b>7</b>	<b>2</b>	<b>89</b>	<b>6</b>	<b>5</b>	<b>100</b>

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

**Past Performance by Firm on Parish Contracts.** Eustis Engineering has worked on more than 800 projects for Jefferson Parish (since 1951). This work includes roadways, drainage, levees, canals, pump stations, government buildings, and more. Eustis Engineering has held several contracts with Jefferson Parish to perform a various of geotechnical, environmental, and CMT services over the years.

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

Signature:   
Title: President

Print Name: Gwendolyn P. Sanders, P.E.  
Date: 28 July 2022

