



COASTAL ENGINEERING

CONSULTING SERVICES AS NEEDED PARISH WIDE
SOQ 24-020 | RESOLUTION NO. 144205

ALL SOUTH CONSULTING ENGINEERS, LLC
652 PAPWORTH AVENUE, METAIRIE, LOUISIANA 70005
OFFICE: (504) 322-2783 | FAX: (504) 322-2787

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ 24-020 to provide **Coastal Engineering** Consulting Services – Res. No. 144205

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



652 Papworth Avenue,
Metairie, Louisiana 70005

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:

Timothy P. Bonura, P.E.
Managing Partner
504-322-2783
tim@ascellc.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.

Timothy P. Bonura, P.E.
Managing Partner
504-322-2783
tim@ascellc.com

John Teegarden, P.L.S.
Vice President, Survey Division Manager
504-322-2783
jteegarden@ascellc.com

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

<u>7</u> Administrative	<u>0</u> Estimators	<u>1</u> Specification Writers
<u>1</u> Architects (Licensed)	<u>0</u> Geologists	<u>2</u> Structural Engineers
<u>0</u> Chemical Engineers	<u>0</u> Geotechnical Engineers	<u>2</u> Graduate Engineers
<u>12</u> Civil Engineers	<u>0</u> Interior Designers	<u>4</u> Project Managers
<u>13</u> Construction Inspectors	<u>0</u> Landscape Architects	<u>3</u> Clerical
<u>0</u> Ecologists	<u>0</u> Land Surveyor	<u>10</u> Grant/Funding Specialist
<u>0</u> Electrical Engineers	<u>0</u> Mechanical Engineers	<u>0</u> Sanitary Engineers
<u>8</u> Engineer Intern	<u>0</u> Environmental Engineers	
<u>2</u> Professional Land Surveyor		<u>77</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.

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.		
2.		
3.		

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

All South Consulting Engineers, LLC will provide **15** key personnel to this project. With a total of **77** staff members, All South has ample additional resources to allocate as necessary.

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:

Timothy P. Bonura, P.E.
Partner/ Principal in Charge

Project Assignment:

Principal in Charge

Name of Firm with which associated:

All South Consulting Engineers, LLC



Years' experience with this Firm:

20

Education: Degree(s)/Year/Specialization:

Bachelor of Science, 1994, Civil Engineering

Active registration: Year first registered/discipline:

2001, Civil, Louisiana License No. 29351; 2009, Civil, Mississippi License No. 18974
2009, Civil, Alabama License No. 30479; 2010, Civil, Georgia License No. 34769

Other experience and qualifications relevant to the proposed Project:

Timothy Bonura, P.E. began his career in 1994 after receiving his Bachelor of Science in Civil Engineering from the University of New Orleans. Having worked in the Civil Engineering business for 10 years, establishing a strong and solid reputation in the metro New Orleans area, Mr. Bonura decided to start his own engineering firm.

In 2004, Mr. Bonura co-founded All South Consulting Engineers, LLC. As Principal, Mr. Bonura is involved in every aspect of the daily operations, which includes designs, project management, business development, client relations, and personally ensures all contractual obligations are fulfilled timely. He is the point of contact for the project owners and ensures that adequate resources are available to all team members.

Over the course of his career, Mr. Bonura has worked with many local, state and federal agencies and provided professional engineering and project management services on more than \$1 billion worth of projects throughout Southeast Louisiana. Mr. Bonura is providing guidance, direction and staffing for current projects. As point of contact between the owner and staff engineers, he ensures the project design and results are compatible with the owners' requested service.

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Mr. Bonura has ample experience with coastal infrastructure projects throughout South Louisiana. He has managed these projects from inception through construction. He has lobbied local, state and Federal agencies to help create legislation utilized today on both the funding of our coastal programs and in the development of many of the guidelines followed today. Mr. Bonura was involved in the development of Parishes Against Coastal Erosion (PACE) in early 2003 and is still involved today. Mr. Bonura supported lobbying efforts in the establishment of the Gulf of Mexico Energy Security Act (GOMESA) in 2006 along with attending meetings with congressional delegation representatives to assist in the passing of this legislation.

Mid Barataria Sediment Diversion *Plaquemines Parish, Louisiana*

Mr. Bonura provides project management and administrative oversight for a team of engineers and surveyors on the civil design, structural design and surveying of this diversion project. This project included design of the reservation area, all site buildings (safe house, operations and maintenance building, administration building and a boat storage facility) and topographic/hydrographic project surveying.

Lower East Dularge Levee Enlargement *Terrebonne Parish, Louisiana*

Mr. Bonura worked with a team charged with developing a plan to improve a 2.5-mile-long reach of the Dularge levee in a short period of time. This work included taking the preliminary analysis of this levee section, which had been performed earlier, to full plans and specifications for the construction of this levee section. The Terrebonne Levee and Conservation District asked the team to move quickly on this effort on an emergency basis. The team analyzed geotechnical data and survey data to develop a levee cross section and quantities.

Des Allemands Bulkhead *Lafourche Parish, Louisiana*

Hurricane Ike severely damaged a timber bulkhead and its associated levee system, which was already weakened from natural age and weather deterioration in the community of Des Allemands. Mr. Bonura worked with a team that completed the initial assessment of the area; prepared grant application package based needed improvements. This project included installation of over 1800' of a braced sheet pile wall system which provides flood protection to an elevation of 6'.

East St. John High School Hazard Mitigation – Pump Station/Flood Protection *St. John the Baptist Parish, Louisiana*

This project consists of implementing flood mitigation measures to East John High School to prevent flooding of the 28-acre campus due to area flooding and/or storm surge for the 100-yr design event. The campus was flooded in 2012 due to Hurricane Isaac and FEMA funds were provided to the owner for flood damage repairs and additional flood mitigation measures. Mr. Bonura supervised staff engineers in the design of this project which consisted of the initial flood mitigation conceptual design, including a perimeter floodwall and levee system, driveway ramps for student, faculty and bus access, layout for a new drainage system complete with an interior drainage pump station with back-up generator, bypass sluice gate structure and onsite retention area for storm water.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Jens J. Nielsen, Jr., P.E. <i>Partner/ Principal in Charge</i>
Project Assignment:
Principal in Charge
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
18
Education: Degree(s)/Year/Specialization:
Bachelor of Science, 1992, Civil Engineering
Active registration: Year first registered/discipline:
1996, Civil, LA License No. 27096 1999, Civil, Mississippi License No. 19001
Other experience and qualifications relevant to the proposed Project:
<p>Jens J. Nielsen Jr., P.E. began his career in 1992 after receiving his Bachelor of Science in Civil Engineering from Louisiana State University. Upon graduating, he worked for 12 years with three multi-disciplinary civil engineering firms. During his tenure with these firms, Mr. Nielsen worked as design engineer and construction manager on engineering projects for municipal, private and state projects. After establishing his reputation as an experienced and trusted civil engineer in Southeast Louisiana, Mr. Nielsen was prompted to enhance his career even further. In 2004, Mr. Nielsen co-founded All South Consulting Engineers, LLC. As Principal, he manages the daily operations of the firm, overseeing designs and project management, ensuring time and budgetary commitments are upheld, and maintaining key client relations. Mr. Nielsen has provided QA/QC over the projects that All South Consulting Engineers, LLC has designed. He has additionally provided QA/QC services for the designs of other consultants as project manager of FEMA related projects after Hurricane Katrina for various municipalities.</p> <p>Mid Barataria Sediment Diversion <i>Plaquemines Parish, Louisiana</i> Mr. Nielsen provides project management and design oversight for a team of engineers and surveyors on the civil design, structural design and surveying of this diversion project. This project included design of the reservation area, all site buildings (safe house, operations and maintenance building, administration building and a boat storage facility) and topographic/hydrographic project surveying. Mr. Nielsen provides QA/QC of this design.</p> <p>Morganza to the Gulf Reach K Marsh Creation Mitigation <i>Lafourche Parish, Louisiana</i> Mr. Nielsen is the supervising principal for this project. This project included geotechnical analysis, as well as topographic and bathymetric survey information. The team will use this information to determine if the project is</p>

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feasible, and the required borrow and fill quantities to achieve the required elevation.

Lake Lery Marsh Creation and Rim Restoration *St. Bernard Parish, Louisiana*

Lake Lery Marsh Creation and Rim Restoration project includes 390 acres of intermediate marsh creation and nourishment and 2.4 miles of lake rim embankment stabilization in St. Bernard Parish. Jens Nielsen is the Senior Project Manager in charge of overall managing the permitting, surveying, and design components of the Lake Lery Marsh Creation and Rim Restoration Project. Mr. Nielsen is working with in-house staff and the sub consultant on the permitting process, to make sure required permits are received. This includes the survey, geotechnical, and schematic design information from the other team members. Mr. Nielsen is performing all QA/QC reviews for each submittal. The progress of this project is being scheduled through our Team Gantt software. Mr. Nielsen is making sure the schedule is up to date and all critical path milestones are reached. This project has four team members all with technical tasks dependent on each other's data. Mr. Nielsen also works closely with the Owner to ensure they are aware of all critical decisions and schedules.

Bayou Black Levee Improvements *Terrebonne Parish, Louisiana*

Mr. Nielsen led a team in the emergency levee flood fighting efforts along Bayou Black. The community was threatened by floodwaters from the Atchafalaya River in the spring of 2016. The team was responsible for assessing the existing levees and developing a plan to improve those levees to prevent overtopping by imminent flood waters. Mr. Nielsen's team developed a plan to improve the levees with on site and hauled in material and implemented that program in a matter of days. The work included the improvement of over 5 miles of levee.

Terrebonne Port Industrial Blvd. North Soil Improvements & Bulkhead *Terrebonne Parish, Louisiana*

This project included site soil improvements via Deep Mass Mixed Soil Columns to stabilize a site to construct a 6,000 metric ton fishing vessel. Project also included construction of 850 linear feet of steel sheet pile bulkhead with tie back system at the adjacent shipyard slip in order to construct and launch the ocean-going vessel. Mr. Nielsen was the principle in charge of making sure all team members were working to fulfill the requirements of this complex project. Mr. Nielsen worked closely with all agencies and stakeholders to develop a successful project that met the required goals to build a unique facility. As a result of his work, Thoma-Sea corporation can now compete in a market to build these unique fishing vessels worldwide.

Violet Canal Dredging *St. Bernard Parish, Louisiana*

The Violet Canal Dredging project included maintenance dredging of the Violet Canal in St. Bernard Parish. This project included permit and plan preparation for hydraulic dredging of the Violet Canal to the design cross section to allow for commercial marine traffic and allow for a safe harbor for commercial vessels during tropical events. Mr. Nielsen was the lead project engineer and prepared plans and specifications, calculated dredge volumes and designed the disposal area for capturing the dredge material. Mr. Nielsen also performed construction administration for the project.

Alternative Shoreline Planning and Design Manual, Phase 1 Miss. Department of Marine Resources *MS Gulf Coast*

Alternative Shoreline Planning and Design Manual Phase 1 included creating an inventory of all shoreline protection structures located within the Mississippi Coastal Zone, evaluating performance of the different types of structures, and preparing permitting guidance for alternative shoreline protection measures to be used by the public in permitting new shoreline protection. Mr. Nielsen was the lead project engineer and coordinated the development of a draft Planning and Design Manual for MS DNR which consisted of several alternative shoreline stabilization techniques. He also assisted in the compilation of an inventory of over 450 existing shoreline stabilization structures along the Mississippi Gulf Coast, including locations, lengths, and construction type. He assessed permit systems across coast for alternative shoreline incentives and requirements.

Marsh Club Wetland Re-Development *Calcasieu Parish, Louisiana*

The project consisted of developing a watershed analysis and plant inventory in order to develop a wildlife management program in Calcasieu Parish. Analysis and recommendations included soils profiles, hydraulic analysis and recommendations to control water levels in order to change the vegetation profile and maximize growth of new plantings to establish a thriving management area for wildlife management. Mr. Nielsen was the lead project engineer and performed watershed analysis, and development of the water control structures for maintaining the recommended water levels within the project area.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Stephen Bourg, P.E. <i>Senior Vice President</i>
Project Assignment:
Senior Project Manager/ Senior Engineer
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
19
Education: Degree(s)/Year/Specialization:
Bachelor of Science, Civil Engineering, 1994 Post-Graduate Studies – Structural Engineering, 1994-1996
Active registration: Year first registered/discipline:
1998, Civil, Louisiana License No. 28240
Other experience and qualifications relevant to the proposed Project:
<p>Stephen Bourg, P.E. joined All South Consulting Engineers in 2005, and is currently Senior Vice President managing both the Design and Disaster Management Divisions. His responsibilities include oversight of all design projects and grant programs. Mr. Bourg manages a staff of over 70 individuals which include Professional Engineers, Program/Construction Managers and other design/ supporting professionals. Mr. Bourg has over 28 years of civil structural design experience and over 16 years of PA, HMGP, Debris & PDA experience on federally declared disasters. He has overseen Design, Program and Construction Management of over 2 billion dollars of projects which include: schools, theme parks, roads, bridges, locks, drainage infrastructure, public utilities, pump stations, levees, floodwalls, hotels, fire houses, high rise condos, community centers, and numerous commercial buildings.</p> <p>Morganza to Gulf Levee Reach K South Lafourche Parish, Louisiana This project consists of constructing multiple levee reaches in a number of phases between Pointe Aux Chenes and Larose which extend approximately 7 miles in length. The first reach consists of realigning and raising approximately 1,800 feet of an existing levee with trucked in borrow. The first phase of the second reach of levee which is approximately 6.8 miles in length utilized side cast dredged borrow to construct the base / initial levee lift through marsh and open water along a LAWLF mitigation levee. The levee design consisted of building temporary containment dikes and floatation channels to construct this reach. The second and third phases of the second reach which are underway include reshaping of the dredged material after the required settlement period. Mr. Bourg performed and supervised staff engineers on the design of this levee system. The spencer method for stability was utilized to design</p>

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these levee reaches. The design process included close coordination with permitting with the LAWL&F, DNR, CPRA and adjacent pipeline companies.

Morganza to Gulf Reach K Marsh Creation Mitigation *Point Aux Chenes, Lafourche Parish, Louisiana*

Mr. Bourg led a team conducting engineering and design services for a 40-acre marsh mitigation site in Lafourche Parish for the South Lafourche Levee District. This project included civil design, geotechnical analysis, as well as topographic and bathymetric survey information and project construction administration.

Mid-Barataria Sediment Diversion *Plaquemines Parish, Louisiana*

Mr. Bourg supervised a team of engineers and surveyors on the civil design, structural design and surveying of this diversion project. This project included design of the reservation area, all site buildings (safe house, operations and maintenance building, administration building and a boat storage facility) and topographic / hydrographic project surveying. Additionally, Mr. Bourg provided project QA/QC of this design.

Atchafalaya Delta WMA Boat Access Project (AT-19) *St. Mary Parish, Louisiana*

Mr. Bourg supervised staff engineers and surveyors in the design and bidding of this bucket dredging boat access project for CPRA and LDWF. Mr. Bourg also provided QA/QC reviews of the final design.

Atchafalaya Delta WMA Campground Improvement Project (AT-20) *St. Mary Parish, Louisiana*

Mr. Bourg supervised staff engineers and surveyors in the design and bidding of this 1200' steel sheet pile tie-back bulkhead project which provided protection to the existing Atchafalaya Delta WMA Campground for CPRA and LDWF. This project also included the installation of a timber protection jetty and 2 timber access piers. Mr. Bourg also provided QA/QC reviews of the final plans and specifications.

Brady Canal Hydrologic Restoration Maintenance Project (TE-28) *Terrebonne Parish, Louisiana*

Mr. Bourg supervised staff engineers and surveyors in the design, bidding and construction administration of the Jug Lake and Bayou Carencro embankment and repair project. The embankment/ repair along Jug Lake and Bayou Carencro bank lines was installed utilizing a bucket dredging operation. Mr. Bourg also provided QA/QC reviews of final design.

Lower East Dularge Levee Enlargement *Terrebonne Parish, Louisiana*

Mr. Bourg provided design oversight to a team of professionals tasked with developing an improvement plan for over 7 miles of levee along Bayou Dularge in Terrebonne Parish. The Terrebonne Levee District asked the team to develop a plan to improve this section of levee, which had suffered from subsidence and erosion of the protective wave berm. Mr. Bourg performed numerous design templet iterations to determine the optimum levee height and levee setbacks to achieve the highest-level flood protection for the budget while maintaining levee stability. The team developed a final plan and levee templet, which was based on the spencer method for stability, to improve the levee by widening by a flood side levee shift the footprint and re-establishing the wave berm. Mr. Bourg also assisted in construction administration of the levee design.

Natural Gas Levee Improvements (South) *Gheens, Lafourche Parish, Louisiana*

Mr. Bourg supervised staff engineers and surveyors in the design of Natural Gas Levee Improvements which ties into the Jesse Dufrene Levee and protects the Gheens community. The existing 5-mile levee was constructed over multiple years from an adjacent borrow canal and was not a uniform height or section. The project also required coordination with multiple landowners and numerous pipeline crossings. The design goal was to develop the levee section to a uniform elevation 7.0 throughout. The spencer method for stability was utilized to design this levee reach. Mr. Bourg also provided QA/QC reviews of the final plans and specifications.

Des Allemands Bulkhead *Lafourche Parish, Louisiana*

Hurricane Katrina severely damaged a timber bulkhead and its associated levee system, which was already weakened from natural age and weather deterioration in the community of Des Allemands. Mr. Bourg completed the initial assessment of the area and prepared a grant application package based on needed improvements. This project included demolition of the existing wooden bulkhead to accommodate a new tie-back system; install 2,000 feet of steel and vinyl sheet pile walls with a tie-back and dead-man system; addition of stone rip-rap to shore up the existing levee system.

Alexis Bay Terraces *Plaquemines Parish, Louisiana*

Mr. Bourg led a team of professionals providing program management, construction management, and related inspection services for the Alexis Bay Terracing project. This project consisted of the creation of over 111 acres of marsh terraces in Alexis Bay in Plaquemines Parish.

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title: Jarret Bauer, P.E. <i>Civil Engineer</i>
Project Assignment: Project Engineer
Name of Firm with which associated: All South Consulting Engineers, LLC 
Years' experience with this Firm: 17
Education: Degree(s)/Year/Specialization: Master of Science, Ongoing, Coastal and Ecological Engineering Bachelor of Science, 2007, Civil Engineering Bachelor of Science, 2005, Business Management
Active registration: Year first registered/discipline: 2011, Civil, Louisiana License No. 36720
Other experience and qualifications relevant to the proposed Project: Jarret Bauer is a graduate of Loyola University in New Orleans and Louisiana State University, achieving a B.S. in Civil Engineering and a B.A. in Business Administration from Loyola University in May 2005. Mr. Bauer has a distinguished career that spans over sixteen years of infrastructure design, construction administration, and project management experience primarily in the fields of transportation and facilities (residential and commercial). A majority of his experience has been hands-on management of large-scale construction projects for government municipalities along with a vast experience in disaster management assistance. His current expertise includes hazard mitigation projects involving hydraulic modeling using the latest software, Benefit-Cost Analysis using FEMA approved methodologies and tools to demonstrate the cost effectiveness of projects. His current and previous projects include: TE-0165 Terrebonne Houma Navigation Canal (HNC) Bird Island Restoration <i>Terrebonne Parish, Louisiana</i> Mr. Bauer leads a team of professionals for the design of the HNC Bird Island Restoration project. Responsibilities include coordination with all sub-consultants, including detailed coordination of geotechnical and environmental analyses. Mr. Bauer is responsible for day-to-day design responsibilities, including cost estimating and project scheduling. The project consists of over 40,000 tons of large rip-rap to protect from wave forces, as well as over 500,000 CY of dredging sand fill that will be dredged from a remote location approx. 10 miles from project site. Lake Lery Marsh Creation and Rim Restoration <i>St. Bernard Parish, Louisiana</i> Mr. Bauer is lead engineer in charge of this project. His design responsibilities include coastal wave modeling and runup design, hydraulic and mechanical dredge planning and quantity design, water level analysis, marsh creation and nourishment design, and rim restoration and armoring all in accordance with current CPRA Marsh Creation Design Guidelines. Mr. Bauer modeled the Lake Lery basin to analyze wind and tidal effects on wave generation, as well as

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wave runup, along the lake rim. He was responsible to oversee a data gap analysis research and reporting effort. Mr. Bauer analyzed all data, including geotechnical stability and settlement data, to design 390 acres of marsh creation and an armored lake rim using concrete-mattresses. He oversaw project schedules and assisted coordinating with project consultants for geotechnical and environmental engineering services.

Morganza to Gulf Reach K Marsh Creation Mitigation *Point Aux Chenes, Lafourche Parish, Louisiana*

As lead engineer in charge of the project, Mr. Bauer's responsibilities included coastal engineering and design of 42.9 acres of marsh creation and marsh nourishment. Mr. Bauer performed quantity calculations for 290,000 CY of hydraulically dredged material to be pumped from an adjacent 10,000 LF borrow area. All engineering and design conformed with current CPRA Marsh Creation Design Guidelines. He coordinated survey and magnetometer data to delineate approved borrow area, access channel, and marsh creation area work requirements. He coordinated with all landowner and permitting agencies and completed all scheduling and cost estimating. Mr. Bauer worked with project consultants to develop and account for short and long-term settlement curves, as well as hydraulic dredge and natural material losses. He developed detailed work plans and monitoring requirements for the Contractor to assist with oversight and project productivity. Mr. Bauer performed all design in accordance with the CPRA guidelines, as well as all construction administration oversight duties.

Brady Canal Hydrologic Restoration Maintenance Project *Terrebonne Parish*

Mr. Bauer acted as lead engineer in charge of the project. Mr. Bauer responsibilities included coastal engineering and design to maintain the Brady Canal Restoration, which includes Jug Lake, Bayou Decade, and Carencro Bayou within Terrebonne Parish, LA. Project scope includes re-establishing earthen embankments along the rim of Jug Lake and Bayou Decade, as well as repairing several breaches along Carencro Bayou. Mr. Bauer utilized survey data from NRCS to design a new earthen section and borrow area for the breaches and embankments. Mr. Bauer performed all calculations, as well as completed all plans, specifications, and cost estimates.

Alternative Shoreline Planning and Design Manual, Miss. Department of Marine Resources *Mississippi Gulf Coast*

Mr. Bauer assisted with developing a draft Planning and Design Manual for MS DMR which consisted of several alternative shoreline stabilization techniques. He also conducted inventory of over 450 shoreline stabilization structures along MS Coast, including location, length, and construction type. He assessed permit systems across coast for alternative shoreline incentives and requirements.

Atchafalaya Delta WMA Boat Access Project (AT-19) *St. Mary Parish, Louisiana*

Mr. Bauer provided lead project management, acting as direct liaison with the CPRA, and coastal and mechanical dredge engineering services for CPRA and LDWF. He coordinated all project sub-consultants; including in-house bathymetric, topographic, and magnetometer surveying services, and 3rd party geotechnical analyses. Mr. Bauer analyzed existing bathymetry and identified potential gaps in the existing and proposed bottom profiles, which were amended into the project via permit modifications for the CPRA and LDWF. He provided all permit drawing revisions and assistance as required. Mr. Bauer analyzed borrow placement profiles in conjunction with potential subsurface utilities.

Atchafalaya Delta WMA Campground Improvement Project (AT-20) *St. Mary Parish, Louisiana*

Mr. Bauer provided lead project management, acting as direct liaison with the CPRA, and assisted with in-house engineering design for the CPRA and LDWF. He coordinated the team of project consultants; including in-house civil and structural engineering, bathymetric, topographic, and magnetometer surveying services, and 3rd party geotechnical analyses. Geotechnical analysis consisted of in-depth stability analyses for a proposed rock dike system which was value engineered into a wooden jetty to achieve LDWF requirements while satisfying stability concerns. Mr. Bauer performed QA/QC oversight of design and assisted with specification development. He performed permit documentation reviews for the CPRA to maintain compliance during design. He provided administration services for the CPRA during bidding, which included addressing contractor Q&A and a bidding opening that consisted of 12 eligible bidders and a low bid under budget.

Allen Bayou Bank Stabilization and Drainage Improvements *Livingston Parish*

Mr. Bauer provided engineering design and oversight on the design of erosion protection mats, rip rap sizing and placement, natural slope restoration and grading, and H&H modeling. Mr. Bauer developed a feasible design alternative to protection Allen Bayou during high water events and backwater flooding from the Amite River.

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title: Michael Slovensky, P.E. <i>Civil Engineer</i>
Project Assignment: Project Engineer
Name of Firm with which associated: All South Consulting Engineers, LLC 
Years' experience with this Firm: 12
Education: Degree(s)/Year/Specialization: Bachelor of Science, Civil Engineering, 2007
Active registration: Year first registered/discipline: 2015, Civil, Louisiana License No. 40354
Other experience and qualifications relevant to the proposed Project: <p>Michael Slovensky has lived and worked in southeast Louisiana for over 30 years and has accumulated over 20 years' experience in land surveying and over 17 years' experience in civil engineering design and project management. Throughout his career he has accessed over 500 hurricane damaged structures and managed and designed hundreds of FEMA disaster recovery projects, for municipal facilities, ports, airports, water and sewer infrastructure, recreational facilities, and has managed sub consultant architect and engineers to achieve reconstruction of several parish school systems. Mr. Slovensky is the Senior Engineer for the All South Houma office, where he manages engineers, engineer interns, construction managers, drafters and clerical personnel.</p> <p>Mid-Barataria Sediment Diversion <i>Plaquemines Parish, Louisiana</i> Mr. Slovensky's responsibilities included the preliminary structural design of the timber supported concrete foundations and the structural main frame systems for the Pole Shed and Maintenance Buildings. He was responsible for review of the geotechnical report for determination of piling types and lengths to be utilized and performed STADD structural modeling and analysis to determine member internal forces and sizes, and performed secondary member analysis with Digital Canal software, all for preliminary design of the structural steel main frame systems. Mr. Slovensky was responsible for determination of wind loading and design pressures and was responsible for design of the sewer treatment pile supported foundation to achieve support and resistance to buoyant forces. Mr. Slovensky was also responsible for outlining the feasibility of flood hazard mitigation to elevate the MBSD area 3'-4' in elevation for mitigation of increased flood depths. He evaluated anticipated effects on sewer collection lines and the individual residential treatment systems and outlined recommendations for install of new residential sewer treatment systems.</p>

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Lower Dularge Levee East Improvements Phase 3 *Dularge, Terrebonne Parish, Louisiana*

Mr. Slovensky's responsibilities included the design of approx. 6 miles of an earthen levee, to be constructed to a +12.0 Elevation, utilizing approx. 225,000.00 CY of imported fill material. He was responsible for developing the levee template with consult from the geotechnical engineer, as well as development of the construction drawings and specifications for the outlined scope of work, and will be handling the public advertisement, bidding and contract development for the award of the construction project, flowed by construction admin and closeout of the levee construction project. The project is being developed with the base bid to include construction to +9.0' elevation, with 2 alternate items outlining construction of the remaining height, in 2 increments.

Lower Dularge Levee West Improvements Phase 3 *Dularge, Terrebonne Parish, Louisiana*

Mr. Slovensky's responsibilities included handling all construction administration and closeout of the levee construction project. He managed the project, reviewed all project submittals, processed all pay applications, developed all change orders and presented them at the district board meetings for acceptance. The project consisted of the construction of approximately 2.5 miles of an earthen levee, constructed to an elevation +8.0'

Terrebonne Port Industrial Blvd. North Soil Improvements & Bulkhead *Terrebonne Parish, Louisiana*

This project for the Terrebonne Port began design in February of 2019 and construction was completed in February of 2020 with a construction costs of \$12,956,448. The project consisted of application for grant funding through the LADOTD Port Priority Program and involved structural and civil design, project management (PM) and construction administration. The project required the existing earthen site to have extensive soil treatment with installation of a retaining wall systems for the development of a ship building pad, with marine slip, for the construction of a 6000 metric ton Alaskan fishing vessel. Mr. Slovensky worked with the geotechnical engineer to design approximately 900 linear feet of a 70' deep steel frontal sheet pile bulkhead with 35' deep steel tieback sheet pile wall. the ship building pad comprised an area of approximately 150,000 SF; existing soils were strengthened by installation of 435 - 8' diameter by 70' long Deep Mass Mixed (DMM) soil columns topped by a Load Transfer Platform, utilizing approximately 19,000 CY of Portland Cement. The project was a critical infrastructure project which required fast tracking to bid; overall permitting and bid set plans and specifications were completed and ready for bid within 6 months.

Alidore Levee and Pump Station improvements *Mathews/Lafourche Parish, Louisiana*

This project initially consisted of the design for a 3 drainage pump platform, access walkway, diesel fuel tank foundation, site fencing and improvements. Mr. Slovensky's responsibilities included: Evaluation of geotechnical information and structural design of the 3 drainage pump platform, access walkway, abandonment of existing discharge lines, install of new discharge piping within a railroad right of way. and trash screen assemblies. The project has had multiple redesigns, with current redesign focusing on reduction in size to accommodate 2 drainage pumps with single space for a temporary pump. Following completion of final design, Mr. Slovensky will be responsible for all construction administration, to include review of all product submittals, conducting progress meetings, processing all invoices, change orders, and development of closeout documentation and final as built drawings.

Des Allemands Levee Improvements *Lafourche Parish, Louisiana*

This project consisted of providing the Parish 3 possible design options to install Steel Sheet Pile Walls, earthen levees, and stop log structures to block off, and mitigate approximately 40 acres of rural residential and commercial properties. The designs connected existing SSP and levee systems, traversed several site features such as docks, boat launches, buildings, and concrete parking structures; crossed a state highway and tied into a railroad track/ROW. A navigation canal was fitted with SSP Wall & stop log assembly to allow shrimp boats to pass.

Big Lake Pier Project *Cameron Parish, Louisiana*

This project consisted of the design of a timber pile supported pier with metal canopy fishing areas, approximately 300 feet in length. Mr. Slovensky's duties were to design of timber support piling, all appropriate bracing, and construction inspection. Design in accordance with APA Marine timber manual, AITC, and ASCE 24 for anticipated flood Loading. Design was modeled using STADD PRO & VERSA FRAME structural modeling software.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Steven Schorr, P.E. <i>Civil Engineer</i>
Project Assignment:
Project Engineer
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
11
Education: Degree(s)/Year/Specialization:
Bachelor of Science, Civil Engineering, 2009 Minor in Structures, 2009
Active registration: Year first registered/discipline:
2015, Civil, Louisiana License No. 39515
Other experience and qualifications relevant to the proposed Project:
<p>Steven Schorr, PE joined All South Consulting Engineers in 2013 and currently serves as Engineering Supervisor for the Metairie office. In this role, Mr. Schorr coordinates and manages staff engineers and inspectors on all ongoing engineering projects. He has managed numerous projects on time and within budget and has provided engineering design and construction administration. Mr. Schorr is an exceptional asset to the All South project team and utilizes new, innovative, and cutting edge engineering concepts to his project designs. His relevant experience includes:</p> <p>Morganza to Gulf Reach K Levee Improvements <i>Point Aux Chenes, Lafourche Parish, Louisiana</i> This project consists of constructing a 1,500 LF levee to EL +8, a flood control structure, and over 6 miles of dredging and side casting for material storage for future use. Mr. Schorr's duties include creating Right of Way drawings that detail the levee layout and project boundaries, assisting with creating all project documents, reviewing project surveys, creating typical sections, and creating a staged construction sequence to build the project.</p> <p>Alexis Bay Terraces <i>Plaquemines Parish, Louisiana</i> This project consists of marsh creation via construction of 111 earthen terraces that are 185'L x 45'W with material taken from adjacent borrow. During design for this project Mr. Schorr's duties as Program Manager included reviewing and commenting on the design engineer's submittal documents, attending meetings to discuss design progress, verifying that the Design Engineer's proposed terrace designs stayed within the parameters of the permit, and coordinating design items between the Owner and Design Engineer. Mr. Schorr's duties during construction included visiting the site to help oversee construction progress, reviewing project submittals/project daily reports/RFI's,</p>

TEC Professional Services Questionnaire

attending project meetings with the design team and Contractor and coordinating construction items between the Owner and the Design Engineer.

Des Allemands Levee Improvements *Des Allemands, Louisiana*

This project consists of clearing and removing trees within the proposed levee footprint, constructing a 600 LF levee to EL +6.5, placing over 300 tons of rip-rap embankment armor, and hydroseeding the new levee. Mr. Schorr's duties include reviewing project surveys, designing the layout of the levee, coordination with nearby homeowners, coordination with Entergy to have utilities relocated and design of the plans and specifications for the project. He was the Project Manager responsible for all Construction Administration. In his role, Mr. Schorr handled all project meetings, developed agendas, and issued meeting minutes. He coordinated construction items with sub designers, contractor, parish departments and inspectors. He reviewed and approved all product submittals and shop drawings and reviewed and recorded all materials testing reports. Mr. Schorr, additionally, performed inspections, issued updates to the Owner, reviewed and processed change orders, handled all construction/design/professional services invoicing, and reviewed/assembled/issued closeout documentation such as warranties, O&M manuals, with final development of as-build drawings and conformed specifications.

Southwest Pass Maintenance Dredging *Venice, Louisiana*

This dredging project was part of the yearly dredging maintenance near the mouth of the Mississippi river to maintain river sediment deposits to allow for safe passage for marine traffic. The dredging was performed utilizing a large capacity hopper dredge. Mr. Schorr performed field engineering duties for this project which included land support for the hopper dredging operations and collecting and reviewing hydrographic survey data of the fill and borrow locations.

Bush Canal Barge Gate Flood Control Structure *Chauvin, Louisiana*

The Bush Canal floodgate structure project was a flood protection project for the Terrebonne Parish Levee District and Coastal Protection and Restoration Authority, located in Chauvin, LA. Mr. Schorr performed field engineering for the project which consisted of the installation of 300-LF of sheet piling wall, 300-LF of vertical and battered piles, installation of a 56-LF steel barge gate structure, installation of two 75-FT tall Z-truss support structures, construction of 200-LF of timber guide walls, installation of roughly 300-tons of scour protection, installation of cathodic corrosion protection, and construction and grading of 200-LF of levee with concrete sloped pavement. Mr. Schorr assisted in the installation of the barge gate; a challenging task due to the bottle necked currents created by the newly constructed floodwall.

S. Lafourche Levee Project *Golden Meadow, Louisiana*

The project consisted of mechanically bucket dredging a 2.7-mile long borrow canal to supply an adjacent berm area with over 750,000 CY of material, including onsite hauling to fill the template in some areas where there was insufficient adjacent borrow material available. Mr. Schorr's duties included: performing hydrographic surveys of the dredged borrow material and land RTK surveys of the dredge fill material, processing and computing survey data for daily dredge cut and fill volumes, creating and maintaining project cost and quantity tracking spreadsheets, updating project schedules and timelines, and coordinating daily dredging and earthwork operations with the project team.

MRGO Storm Surge Protection Wall *New Orleans, Louisiana*

Mr. Schorr was involved with the construction of the foundation and abutment walls for the vertical lift *gate and swinging barge gate*. For the vertical lift gate, 200 2'-square x 135'-long concrete foundation piles were driven, a cofferdam structure was installed, and the slab and abutment walls were constructed. Mr. Schorr's field engineering duties for this project included coordinating labor and work for the night shift crews, overseeing the installation of 2,000-LF of UHMWPE barge deflectors on the abutment walls, purchasing and installing over 1,000-LF of concrete cooling pipe for mass concrete pours, coordinating the installation of the barge gate seal, and assisting with the installation of the pivot column for the swinging barge gate structure.

Mid Barataria Sediment Diversion *Plaquemines Parish, Louisiana*

This project involved mitigating public and private infrastructure in towns surrounding the Mid Barataria Sediment Diversion project to account for changes once the sediment diversion is in place. This work included designing lift stations to redirect sewer flow and mitigating the temporary increases in tide levels by the following: bulkheads, elevated roadways, elevated buildings, elevated walkways, elevated boat sheds, and elevated structures. Mr. Schorr's duties included overseeing all design and assuring that all work was included in the project plans. He assisted with plans, specifications, and cost estimations for the project.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Jack Hingle, P.E. Senior Civil Engineer
Project Assignment:
Senior Engineer
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
10
Education: Degree(s)/Year/Specialization:
Bachelor of Science, Civil Engineering, 1979, Louisiana State University
Active registration: Year first registered/discipline:
1987/ Civil PE Louisiana License No. 22622
Other experience and qualifications relevant to the proposed Project:
<p>Jack Hingle, P.E. joined All South Consulting Engineers in 2014. He has a distinguished career that spans over 40 years of infrastructure design, construction administration, and project management experience on a variety of projects. A majority of his experience has been hands-on management of large-scale projects for government municipalities including hydraulic and hydrologic modeling, wastewater collection and treatment, lift stations, water distribution systems, roadways, public utilities, drainage collection systems, pumping stations, levees, floodwalls, bulkheads, marsh creation, and other general engineering services. Mr. Hingle works closely with fellow engineers, project managers, CADD staff, contractors, inspectors, and residents to ensure all successful and timely completion of projects.</p> <p>Mid Barataria Sediment Diversion <i>Plaquemines Parish, Louisiana</i> The project involves the survey, planning, design and construction of a diversion channel/flume structure from inside and through the Mississippi River Levee (MRL) to the back Barataria Bay basin approximately 2 miles for coastal land accretion. The project also includes civil and structural design of the support facilities to the diversion. Mr. Hingle is responsible for the coordination and development of civil design plans and specifications for the Reservation which contains all operational support facilities. Plans include a concrete 24 ft-wide roadway, aggregate parking area, 24 ft-wide aggregate/asphalt access roads, along with 2 buildings and a safe house structure. Mr. Hingle is coordinating plans with All South structural personnel, as well as architectural and mechanical sub-consultants. All work is performed under the direction of CPRA and coordination with the lead engineers, AECOM. Mr. Hingle will also be coordinating with the contractor (under CMAR procedures) for the cofferdam excavation including necessary surcharge placement</p>

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location during the flume construction adjacent to the reservation area. The project will involve construction administration in conjunction with AECOM upon approval from CPRA and the permitting agencies.

Violet Canal Maintenance Dredging *St. Bernard Parish, Louisiana*

The project involved deepening the Violet Canal from EL -4 ft to EL -7 ft via hydraulic dredging operations from the existing siphon structure at E. St. Bernard Hwy. for 2,000 LF. The new profile includes a 40-ft. bottom width with 2:1 side slopes. All spoil material is disposed in a designated area adjacent to the canal. Mr. Hingle is responsible for developing construction documents, including typical sections, plan-profiles, and cross sections to estimate quantities and costs. Mr. Hingle coordinated all permitting documents and plans required by respective agencies (LA Dept Natural Resources/Coastal Protection Agency, Lake Borgne Levee District & USACE) for approval; under the direction of the St. Bernard Parish Recovery and Public Works Depts. Mr. Hingle performed all construction administration, including oversight and coordination with the resident inspector.

Allen Bayou Relief Erosion Control and Embankment Stabilization *Denham Springs, Livingston Parish, Louisiana*

The Allen Bayou project is a State Hazard Mitigation grant project for Livingston Parish, located in Denham Springs, LA which involves the hydraulic analysis of the Allen Bayou Relief Channel along with the design of hydraulic improvements and embankment stabilization measures to mitigate future damages. Mr. Hingle coordinates with All South survey crews, engineering staff personnel and CAD, geotechnical sub-consultant, environmental sub-consultant, and stabilization product vendors to develop plans/specifications which include typical sections, cross sections and details to implement the embankment stabilization, along with replacement of 2 (36" & 42") damaged culverts at the upper stream end. The current bank along the southern outfall stream is in critical potential failure with steep slopes of 1.5:1 or greater along the project section that will be stabilized on a possible 2.5:1 slope for stability along with designed stabilization products, and realignment of the meander channel bottom therein. Also, Mr. Hingle will oversee bidding and necessary construction administration.

Jesse Dufrene Levee Improvements (North) *Gheens, Lafourche Parish, Louisiana*

The project scope involved the improvement of an existing levee and/or ridge section that protects the low lying Gheens community on the north side of Lafourche Parish. Mr. Hingle was tasked with the implementation and design of the greatest elevation improvements possible while maintaining stability within the existing footprint. The footprint was bound by marsh on the flood side, a large ditch on the protected side, and a very weak soil area mid-project. Mr. Hingle coordinated with the geotechnical firm to analyze several iterations to determine the safest resulting elevation/levee section. The section included a ditch infill area for stability utilizing approximately 85,000 CY of clay material from an adjacent borrow pit. In conjunction with the All South field survey crews, Mr. Hingle developed bid plans, specifications, and cost estimation to fit within the NLLD budget. During construction, Mr. Hingle provided construction administration and field supervision with the All South resident inspector.

Natural Gas Levee Improvements (South) *Gheens, Lafourche Parish, Louisiana*

The Natural Gas Levee Improvement project involved improving an existing levee and/or ridge section that protects the low lying Gheens community on the south side of Lafourche Parish. Mr. Hingle was tasked with the design of the greatest elevation improvements possible while maintaining stability within the existing footprint. The footprint was bound with marsh on the flood side, a large ditch on the protected side, and several various oil/gas pipelines crossings the required coordinated construction agreements along the 5-mile project section. Mr. Hingle also coordinated the construction access routes, which are 4 separate routes to be utilized via a 3,000 CY aggregate and clay material access cut through private property, which is currently being negotiated. Mr. Hingle coordinated with the geotechnical firm to analyze several iterations to achieve the safest resulting elevation/levee section. The section includes adding 2 ft-3 ft of elevation and will require approximately 142,000 CY of clay material from an adjacent borrow pit. Mr. Hingle developed bid plans, specification, and cost estimates to fit within the NLLD budget. Mr. Hingle will provide construction administration and resident inspection oversight during construction.

LUMCON Houma Marine Campus *Houma, Louisiana*

Mr. Hingle was tasked with design, permitting and drainage analysis for this project. The project consists of a boat slip for LUMCON's marine training facility. The project is broken into multiple phases including site surcharge, test pile program for building and boat slip piles, bulkhead/tie back wall/pile supported slab and boat slip, and training facility building. He was also involved with the civil aspects of each phase of the project which included coordinating with multiple other consultants, permitting, and development of plans, specifications, and cost estimates for each phase.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Emily Newell, P.E. Civil Engineer
Project Assignment:
Project Engineer
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
2
Education: Degree(s)/Year/Specialization:
Bachelor of Science, Civil and Environmental Engineering, 2012
Active registration: Year first registered/discipline:
2015, Civil, Louisiana License No. 43646
Other experience and qualifications relevant to the proposed Project:
<p>Ms. Newell has been providing consulting engineering services for clients in Southeast Louisiana since 2007. Throughout her career, Ms. Newell has gained a broad range of experience in a variety of fields including land development; hydraulics; hydraulic modeling; wastewater collection and treatment; lift stations; water distribution systems; roadways; drainage collection systems; pumping stations; bulkheads; marsh creation; permitting; environmental assessments; construction administration; forensic engineering; grant assistance and other general engineering services. Since joining All South Consulting Engineers, Ms. Newell has been tasked with managing over \$16M in infrastructure improvements for clients in Lafourche, Livingston & Jefferson Parishes. Ms. Newell understands the importance of being readily available and responsive to clients, permitting agencies, team members and other involved personnel and strives to answer all calls and return messages promptly.</p> <p>Grand Bayou Marsh Creation and Vegetative Ridge Rehabilitation, Plaquemines Parish, Louisiana Ms. Newell assessed alternative sites for new marsh creation. Ms. Newell then undertook preliminary design for the work which included creation of over 300 acres of marsh from dredge material from the Mississippi River and four miles of natural ridge restoration in Grand Bayou. Ms. Newell also prepared the permit application for the work which included preparation of an Environmental Assessment and joint permit application drawings.</p> <p>Albany WWTP Flood Mitigation Albany, Louisiana The Albany WWTP is one of many important facilities subject to flooding during 2016 wet weather events. To reduce the risk of future flooding, Livingston Parish authorized the flood mitigation project. The All South Team was tasked with providing approximately 2,000 linear feet of flood protection around the perimeter of the plant with a \$1.1M</p>

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budget. Ms. Newell assessed and recommended alternatives for flood protection and prepared design, contract documents and bidding/construction administration services for the work, which included a combination of earthen levees and sheet pile flood protection. The project successfully bid in July 2024 with construction expected to be complete early 2024.

Venice Port Complex Bulkhead Improvements *Plaquemines Parish, Louisiana*

The Venice Port Complex is located near the Mississippi River along Grand Pass and Tiger Pass in Venice and serves as a major hub for River navigation. Continual upkeep of the Complex is essential for maintaining the benefits incurred by smooth, uninterrupted operations of the facility. Ms. Newell was responsible for providing engineering services for the projects which included construction of approx. 1,270 LF of new bulkhead located within 3 sites. Work at Site 36 includes the construction of approx. 450 LF of new bulkhead with both a sheet pile wall tie-back and a pile supported concrete deadman tie-back, new mooring bits and a new dolphin. The Site 6 West Slip work includes construction of approx. 610 LF of new bulkhead with a sheet pile wall tie-back and new mooring bits. The Site 6 East Slip work includes filling-in the existing East Slip, new mooring bits and the construction of approx. 210 LF of new bulkhead. Ms. Newell provided the design, plans, specifications and coastal zone permit preparation for the work. Structural assessment, design, drafting, USACE/LDRN permitting and surveying services were all included. She undertook assessment of alternatives for varying dredge depths, tie-back types for the sites, and capacities of the existing adjacent bulkheads, developed cost estimates and provided recommendations for design. She also developed reports needed for permitting including a Beneficial Use of Dredge Material Plan and Level 2 Hydrologic Modification Impact Analysis for 2 of the sites.

Duncan Canal Box Culvert Assessment *Kenner, Louisiana (*Project from previous employer)*

The City of Kenner planned to replace an old, pile supported bridge over the Duncan Canal at West Esplanade Ave. with large concrete box culverts. The existing Duncan Canal is a major Canal serving as the primary outfall to Lake Pontchartrain for Kenner and Jefferson Parish residents. Additionally, Canal No. 2, another primary canal serving the residents of Jefferson Parish, ties into the Duncan Canal at the proposed project location. This would necessitate a tee-type box culvert structure for the replacement. The City of Kenner requested losses through the new system be kept at or below the existing system to reduce the risk of adverse consequences upstream. Ms. Newell undertook assessment of existing conditions using HEC-RAS modeling. She then developed a model using Excel and HEC-RAS to assess new conditions and provide recommendations. Findings and cost estimates were documented in a report. The \$12M project began construction in 2018 and was concluded in 2022.

Assessment of the Canal Street Canal *Jefferson Parish, Louisiana*

The Canal St. Canal includes about 3,100 linear feet of formerly open channel canal which flows into the 17th Street Canal in Jefferson Parish, Louisiana. Numerous side streets discharge directly to the Canal St. Canal. As part of ongoing beautification efforts, the Parish wanted to enclose the canal to provide pedestrian walkways and a biking path in the neutral ground. Ms. Newell was tasked with providing hydraulic assessment to estimate inflow and size the new culvert. Runoff computations were undertaken by Ms. Newell for approximately 150 acres of contributing area. Ms. Newell then used Parish GIS data of the existing collection system to estimate discharge at each outfall. Hydraulic profiles of existing conditions were then developed by Ms. Newell using HEC-RAS and existing pump station specifications. Proposed improvements were then developed and assessed with findings documented in a report. The beautification project has since been used as a primary route for pedestrians and cyclist in neighboring residences.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Gavin Gillen, P.E. <i>Civil Engineer</i>
Project Assignment:
Project Engineer
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
9
Education: Degree(s)/Year/Specialization:
Bachelor of Science, Civil Engineering, 2006
Active registration: Year first registered/discipline:
2011, Civil, Louisiana License No. 35969
Other experience and qualifications relevant to the proposed Project:
<p>Gavin Gillen, PE graduated from the University of New Orleans with a Bachelor of Science degree in Civil Engineering in 2006. He has over ten years of experience in civil engineering and design. Mr. Gillen has extensive experience in the local roadway systems.</p> <p>Morganza to the Gulf Reach K Access Road (Phase I) Haul-In Project <i>Lafourche Parish, Louisiana</i> Mr. Gillen was the design engineer for increasing the access road elevation for approximately 2,000 feet. The existing berm was at approximate elevation +4, and the new access road was built to Elevation +8 once completed. Mr. Gillen coordinated and conducted the pre-bid conference, issued required addenda, and opened the bids on behalf of the client. As contract administrator, he reviewed all pay requests and recommended payment when the requests were acceptable, created change orders for additional time or adjustment of quantities for the project, coordinated with the contractor for resolutions whenever issues occurred, and was responsible for processing all close out documents.</p> <p>Morganza to the Gulf Reach K Access Road (Phase II) On-Site Excavation <i>Lafourche Parish, Louisiana</i> Mr. Gillen was the design engineer for this project, which required removing earthen material from the bottom of adjacent bodies of water via dredge operations, then having the dredge spoil placed along the project. The dredge spoil generally increased the Reach K protection system with varying elevations for approximately 6 miles. The existing berm was at approximate elevation +4, and the spoil may have gotten as high Elevation +12 in some areas. The goal for this project was to place material in what is expected to be the future footprint of the final Morganza to the Gulf levee system, thus creating compaction and settlement prior to building the actual levee. The additional elevation and</p>

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protection provided by the dredge spoil is a secondary benefit of this project. Mr. Gillen coordinated and conducted the pre-bid conference, issued required addenda, and opened the bids on behalf of the client. As contract administrator, he reviewed all pay requests and recommended payment when the requests were acceptable, created change orders for additional time or adjustment of quantities for the project, coordinated with the contractor for resolutions whenever issues occurred, and was responsible for processing all close out documents.

Morganza to the Gulf Emergency Rehabilitation for Reach K Dredge Spoil (Phase 1) Lafourche Parish, Louisiana

Gavin Gillen was the design engineer for this project. The project consists of moving material from locations that have an abundance of material to locations that require material. The goal for this project is to move material into areas that will require compaction and settlement prior to the levee being built in this reach. The contractor is to use templates designed by All South to shape the material to create a uniform look. This project was considered emergency work as the 2020 hurricane season approaches, and portions of this project area did not have sufficient material to prevent flood issues for neighboring communities. Once the material is shaped to the design template, the communities should not have issues with flooding should the area suffer from hurricane tidal action. Construction Cost is estimated at \$1.4 Million.

Morganza to the Gulf Reach K Tie-In Enlargement Lafourche Parish, Louisiana

Gavin Gillen was the design engineer for this project. The project consists of elevating a portion of levee by approximately 2.5 feet that ties the flood gate structure in Point-Aux-Chenes to Reach K. Construction Cost is estimated at \$350,000.

Morganza to the Gulf Reach K Levee Improvements Lafourche Parish, Louisiana

Mr. Gillen provided construction administration services for three projects located throughout the Reach K portion of the South Lafourche Levee protection system. The projects had a total construction value of \$3.7 Million with a combined construction time of 2.9 years. Mr. Gillen's construction administration responsibilities included reviewing pay requests, coordinating with the resident inspectors, providing support and/or guidance to the contractor, coordinating meetings/site visits, and generating contract documents (e.g., Notice-To-Proceed, Certificate of Substantial Completion, Change Orders, etc.). Due to Mr. Gillen's involvement as the design engineer for the projects, he was also responsible for the review and approval of the contractor's submittals and shop drawings.

Lower East Dularge Levee Enlargement Terrebonne Parish, Louisiana

Mr. Gillen was the design engineer for increasing the levee elevation for approximately 10,000 feet. The existing levee's minimum elevation was at approximate elevation +6 in some areas; the new levee was built to Elevation +12. Mr. Gillen coordinated and conducted the pre-bid conference, issued required addenda, and opened the bids on behalf of the client. As contract administrator, he reviewed all pay requests and recommended payment when the requests were acceptable, created change orders for additional time or adjustment of quantities for the project, coordinated with the contractor for resolutions whenever issues occurred, and was responsible for processing all close out documents. The construction cost for the project was \$7.4 Million and was completed in approximately 20 months.

Westbank Roadway Improvements Jefferson Parish, Louisiana

Mr. Gillen serves on the program management team, providing technical review of construction documents, correspondence and coordination with design firms for Parish supplied documents, and assisting contract administration during construction. Mr. Gillen currently has 15 projects assigned to him that currently span between just starting (preliminary design phase) to almost finishing (construction phase). The contract administration work requires coordination of site meetings, review of pay requests, and review of contract documents (e.g., change orders, Certificate of Substantial Completion, etc.). Mr. Gillen began working on the program management team in 2018, resulting in approximately 3 years of experience for this position. Due to the varying projects in different phases, it is estimated that this program will be completed in 2022 with a total cost of \$42 Million.

TEC Professional Services Questionnaire

PROFESSIONAL IN CHARGE OF PROJECT:
Name & Title:
<p>Scott Wetzel, P.E. Civil Engineer</p>
Project Assignment:
<p>Project Engineer</p>
Name of Firm with which associated:
<p>All South Consulting Engineers, LLC</p> 
Years' experience with this Firm:
<p>5</p>
Education: Degree(s)/Year/Specialization:
<p>Bachelor of Science, Civil Engineering, 2019</p>
Active registration: Year first registered/discipline:
<p>2022, Civil Engineer, Louisiana License No. 48298</p>
Other experience and qualifications relevant to the proposed Project:
<p>Scott Wetzel joined All South in July of 2019 after graduating from LSU in May of 2019. He recently received his license as a Professional Civil Engineer. During his time with All South, Mr. Wetzel has assisted different Engineers with a variety of projects performing various tasks. He has assisted in roadway and drainage projects providing help with design and construction administration for multiple Slidell FEMA projects. Mr. Wetzel has worked closely with contractors, inspectors, and residents to ensure all complaints and issues are addressed. His experience includes the following:</p> <p>Mid-Barataria Sediment Diversion <i>Plaquemines Parish, Louisiana</i> The project involves the survey, planning, design, and construction of a diversion channel/flume structure from inside and through the Mississippi River Levee (MRL) to the back Barataria Bay basin approximately 2 miles for coastal land accretion. The project also includes civil and structural design of the support facilities to the diversion. Mr. Wetzel is assisting with the coordination and development of civil design plans and specifications for the Reservation which contains all operational support facilities. Plans include a concrete 24 ft-wide roadway, aggregate parking area, 24 ft-wide aggregate/asphalt access roads, along with 2 buildings and a safe house structure. Mr. Wetzel is coordinating plans with All South structural personnel, as well as architectural and mechanical sub-consultants. All work is performed under the direction of CPRA and coordination with the lead engineers, AECOM. The project will involve construction administration in conjunction with AECOM upon approval from CPRA and the permitting agencies.</p> <p>St. Charles Des Allemands Emergency Bulkhead <i>St. Charles Parish, Louisiana</i> The project consists of a steel sheet pile bulkhead protecting the shore where it meets Bayou Des Allemands. The project also involves drainage design, levee reshaping, utility penetrations through the bulkhead, and stop log structure</p>

TEC Professional Services Questionnaire

design. The project consists of three phases: emergency phase (825 ft), phase 1 (from emergency phase to Old US90; +/- 1500 ft), and phase 2 (from Old US90 to a pump station down the road; +/- 6,000 ft). Mr. Wetzel is involved with all aspects of these phases including design and development of plans, specs, and cost estimates; coordination with geotechnical engineers; coordination with Parish personnel; and construction administration involving invoice reviews, scheduling, and budgeting.

LUMCON Houma Marine Campus *Houma, Louisiana*

Mr. Wetzel was tasked with design, permitting, and drainage analysis for this project. The project is broken into multiple phases including site surcharge, test pile program for building and boat slip piles, bulkhead/tie-back wall/pile supported slab and boat slip, and training facility building. Mr. Wetzel was involved with the civil aspects of each phase of the project which included coordinating with multiple other consultants, permitting, and design and development of plans, specs & cost estimates for each phase. Mr. Wetzel assisted with the design and development of the surcharge plans, specs, and cost analysis including setting elevations of the surcharge and placement of monitoring devices. Mr. Wetzel also put together plans and specifications required to complete the pile load test. For the Bulkhead and Boat Slip project, Mr. Wetzel assisted with the design of the bulkhead tie-back system, demolition and disassembling of existing features, pile supported concrete slab, dredging requirements, temporary access roadways, temporary and permanent drainage structures, sizing and placement of a sewer lift station, and coordinating placement of utilities designed by others.

Beaver Creek Bank Stabilization *Livingston Parish, Louisiana*

This project consists of providing bank stabilization along privately owned property, including an active oxidation pond, consisting of riprap as well as a cantilever steel sheet pile. The project also involved the design of an earthen access road, excavation and embankment as required along the creek slopes, and drainage design. Mr. Wetzel was involved in the design of the construction plans, specifications, and cost estimates for this project as well as the bidding phase. Mr. Wetzel is assisting with construction administration.

Albany Wastewater Treatment Plant Flood Mitigation: *Albany, Louisiana*

This project consists of a flood protection system around a wastewater treatment plant facility including an earthen levee, new cantilever steel sheet pile, new stop log system, riprap, and ancillary drainage work. Mr. Wetzel has worked on the design of the construction plans, the development of the specifications, and the development of the cost estimates for this project. Mr. Wetzel is expected to provide bid phase and construction administration services for this project as well.

Ph. I Angela St. Drainage Improvements *Arabi, Louisiana*

This project consists of removal and replacement of drain lines and other drainage structures, including catch basins, manholes, and conflict boxes, removal and replacement of roadway, ditch reshaping, and utility coordination. Mr. Wetzel provided design of the project, designing layout of the new drainage structures and ditch. Mr. Wetzel developed project plans and specifications for this project and coordinated with utility companies to work through conflict. Mr. Wetzel also performed cost analysis for the project scope. He will be involved with the Construction Administration for this project as well.

TEC Professional Services Questionnaire

PROFESSIONAL IN CHARGE OF PROJECT:
Name & Title:
Melanie Caillouet, P.E. <i>Civil/Environmental Engineer</i>
Project Assignment:
Project Engineer
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
1
Education: Degree(s)/Year/Specialization:
Bachelor of Science, Environmental Engineering, 2002
Active registration: Year first registered/discipline:
2007, Civil Engineer Intern, Louisiana License No. 32936
Other experience and qualifications relevant to the proposed Project:
<p>Ms. Caillouet joined All South Consulting Engineers, LLC in April of 2023. She has over 21 years experience providing consulting engineering services for clients in Southeast Louisiana. Throughout her career, she has provided project management, permitting, environmental engineering, design, construction administration and grant management services for a wide variety of project scopes and disciplines including: architecture, bank stabilization, boat slips, bridges, drainage, electrical, gas distribution, levees, paving, pump stations, sewer collection, sewer lift stations, sewer treatment, ports, water distribution, and water treatment.</p> <p>Modifications to Southdown/Summerfield Watershed, Terrebonne Parish, LA Mr. Caillouet handles the permitting for this project. The project was for the construction of a steel sheetpile backwater structure with 3 - 48" square flap gates, installation of 2 - 48" diameter flap gates adjacent to Valhi Boulevard, installation of 1 - 36" diameter sluice gate, ditch sweeping, earthen berm and associated items of work. Responsibilities: Acquired Coastal Use Permit, Local Coastal Impact Certificate, Water Quality Certification, and US Army Corps of Engineers permit</p> <p>Suzie Canal (North) Levee Extension, Terrebonne Parish, LA Mr. Caillouet provided permitting and right of way acquisition for this project. The project involved construction of approximately 4,700 LF of levee including refurbishing the Cane Break forced drainage levee and the new construction of a levee to provide forced drainage and flood protection. Responsibilities: Acquired Coastal Use Permit, Local Coastal Impact Certificate, Water Quality Certification, and US Army Corps of Engineers permit and real estate instrument.</p>

TEC Professional Services Questionnaire

Assisted the Owner in acquiring servitudes through appropriations.

Six-Foot Ditch Levee Repair, Terrebonne Parish, LA

Mr. Caillouet provided permitting for this project. This work consisted of relocation of approximately 5,400 linear feet of levee along the 6' ditch from St. Louis Canal to near New Orleans Blvd. This work was based upon offsetting the existing levee away from the 6' ditch approximately 30', degrading the existing levee and hauling in additional borrow material. This work required clearing and grubbing, wetland determination, wetland mitigation, permit approvals, additional geotechnical analysis, servitude acquisition and associated items of work. Responsibilities: Acquired Coastal Use Permit, Local Coastal Impact Certificate, Water Quality Certification, State Historic Preservation Office No Objection, and US Army Corps of Engineers jurisdictional determination and permit.

Morganza to the Gulf, Reach G – Segments A, B, and C, Terrebonne Parish, LA

Ms. Caillouet was the environmental engineer for this project. The work consisted of professional services for design and construction levee Reach G - Segment 2, part "a" follows the Mayfield Levee from Reach G - Segment 1, south to Four Point Road (approximate length 7,000 lft.) Reach G - Segment 2, part "b" begins at the intersection of Reach G - Segment 2, part "a" and Four Point Road and ends in a southeast direction with its intersection with LA Hwy. 57, length 9,000 lft. Reach G - Segment 2, part "c" begins at the termination of Reach G - Segment 2, part "b", and parallels LA Hwy. 57 with its termination at the beginning of Reach H - Segment 1 (side borrow), length 7,000 lft. Responsibilities: Project management assistance, submittal review.

New Shrimper's Row Drainage Pump Station (D-11), Lower Grand Caillou (CDBG), Terrebonne Parish, LA.

Mr. Caillouet provided permitting, right of way acquisition, and grant management for this project. This work included design and construction oversight for a new 4-bay pre-cast concrete pump station substructure and access bridge together with excavation and embankment, steel sheetpile bulkhead, steel discharge piping, discharge support bents, pre-engineered metal building, two new 36-inch diameter pumps and engines, by-pass pipes and motorized control gates, one 4,000 gallon double-wall fuel tank, concrete sump, fencing, back-up generator power, telemetry/SCADA system, and demolition of old pump station. This project included wetlands delineation, environmental documentation, permitting and jurisdictional determination. Responsibilities: Prepared LCDBG-DR grant application, right-of-way services, headed grant administration services including DBA compliance, obtained all permits, coordinated wetlands delineation, determination, and mitigation.

Ashland Major Sewer Force Main Construction, Task 3, Project No. 06-SEW-14, Houma, Terrebonne Parish, LA

Mr. Caillouet provided environmental engineering and permitting services for this project. The project included design and construction administration of new 16,200 LF sewer force main tying into the newly constructed Ashland Major Sewer Lift Station which discharges into the South Terrebonne Wastewater Treatment Plant south of St. Louis Canal. Pipeline installed by both open cut and horizontal directional bore methods. 30-inch diameter polyethylene (PE) used for horizontal directional bores.

TEC Professional Services Questionnaire

PROFESSIONAL IN CHARGE OF PROJECT:
Name & Title:
Jack Godbery, E.I. <i>Engineering Intern</i>
Project Assignment:
Engineer Intern
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
4
Education: Degree(s)/Year/Specialization:
Bachelor of Science, Civil Engineering, 2020
Active registration: Year first registered/discipline:
2020, Civil Engineer Intern, Louisiana License No. 34612
Other experience and qualifications relevant to the proposed Project:
<p>Jack Godbery is a graduate of Louisiana Tech University, achieving a B.S. in Civil Engineering. While earning his undergraduate degree, Mr. Godbery performed an internship where he gained experience in transportation design and drafting. Since joining All South in July of 2020, Mr. Godbery has been involved in a variety of projects as well as quickly earning his licensure as an Engineering Intern. Mr. Godbery has assisted in design and construction administration of drainage, marsh creation, and dredging projects. His experience includes the following:</p> <p>Terrebonne Houma Navigation Canal Island Restoration: <i>Terrebonne Parish, Louisiana</i> This project consists of restoring a 26-acre island to a footprint of 40+ acres through the utilization of hydraulically dredged material and rock dike containment. Mr. Godbery has been involved in the ongoing design of the project including assisting on the project's Data Gap Analysis, Alternatives Analysis, and Basis of Design Reports. Mr. Godbery has also assisted in coordination with survey, geotechnical, and environmental sub-consultants during data collection and has reviewed various reports and analyses from these sub-consultants. Mr. Godbery will be involved in the development of plans and specifications of the project.</p> <p>Atchafalaya Delta Wildlife Management Area Boat Access <i>St. Mary Parish, Louisiana</i> This project consists of dredging an area in the Atchafalaya River, South of the city of Berwick, LA. Mr. Godbery was named the construction administrator on this project. With this responsibility, he remained in close contact with the contractor, construction inspector, Coastal Protection and Restoration Authority, and Louisiana Department of Wildlife and Fisheries.</p>

TEC Professional Services Questionnaire

Atchafalaya Delta Wildlife Management Area Campground Improvements *St. Mary Parish, Louisiana*

This project consists of building a sheet pile wall and pier an area in the Atchafalaya River, South of the city of Morgan City, LA. Mr. Godbery was named the construction administrator on this project. With this responsibility, he remained in close contact with the contractor, Coastal Protection and Restoration Authority, and Louisiana Department of Wildlife and Fisheries. Mr. Godbery has monitored and reviewed submittals from the contractor to insure compliance with the specifications. He will also oversee construction when the project begins.

Allen Bayou Relief Erosion Control and Embankment Stabilization *Denham Springs, Livingston Parish, Louisiana*

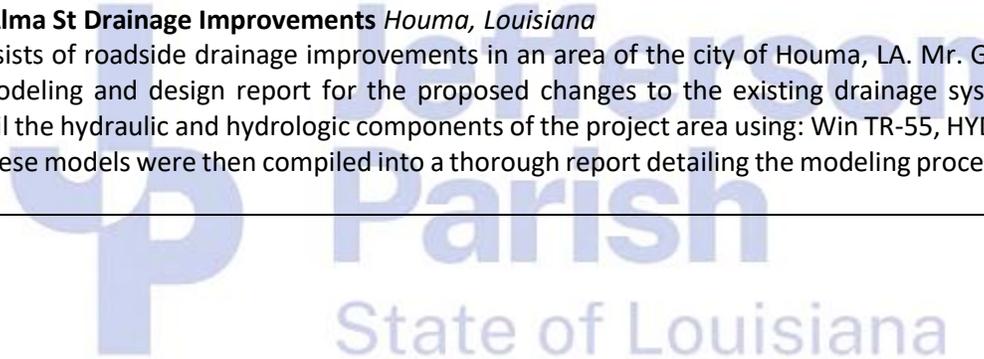
The Allen Bayou project is a State Hazard Mitigation grant project for Livingston Parish, located in Denham Springs, LA which involves the hydraulic analysis of the Allen Bayou Relief Channel along with the design of hydraulic improvements and embankment stabilization measures to mitigate future damages. Mr. Godbery assisted in designing and developing of plans/specifications which include typical sections, cross sections and details to implement the embankment stabilization, along with replacement of 2 (36" & 42") damaged culverts at the upper stream end. The current bank along the southern outfall stream is in critical potential failure with steep slopes of 1.5:1 or greater along the project section that will be stabilized on a possible 2.5:1 slope for stability along with designed stabilization products, and realignment of the meander channel bottom therein.

Beaver Creek Bank Stabilization: *Livingston Parish, Louisiana*

Mr. Godbery will be performing assisting in the engineering design for bank stabilization and hazard mitigation grant projects. The site is experiencing severe erosion. Mr. Godbery will be providing design for erosion protection features, H&H modeling, and will also be responsible for the construction administration.

Westside Blvd-Alma St Drainage Improvements *Houma, Louisiana*

This project consists of roadside drainage improvements in an area of the city of Houma, LA. Mr. Godbery assisted in the hydraulic modeling and design report for the proposed changes to the existing drainage system. Mr. Godbery modeled in detail the hydraulic and hydrologic components of the project area using: Win TR-55, HYDR1130, HEC-HMS, and HEC-RAS. These models were then compiled into a thorough report detailing the modeling process as well as a cost-benefit analysis.



TEC Professional Services Questionnaire

PROFESSIONAL IN CHARGE OF PROJECT:
Name & Title:
<p>John Teegarden, P.L.S. <i>Vice President/ Survey Division Manager</i></p>
Project Assignment:
<p>Senior Professional Land Surveyor/ Survey Project Manager</p>
Name of Firm with which associated:
<p>All South Consulting Engineers, LLC</p> 
Years' experience with this Firm:
<p>10</p>
Education: Degree(s)/Year/Specialization:
<p>International Correspondence School, Surveying and Mapping Course (2-year course completed)</p>
Active registration: Year first registered/discipline:
<p>1990/ Professional Land Surveyor/ Louisiana License No. 4635 1999/ Professional Land Surveyor/ Mississippi License No. 2782</p>
Other experience and qualifications relevant to the proposed Project:
<p>John S. Teegarden, PLS joined All South Consulting Engineers, LLC in 2014 as Vice President and Survey Division Manager. Mr. Teegarden has extensive experience in all aspects of land surveying including boundary, elevation, topographic, hydrographic, industrial, and construction projects. Over his 38-year career, he has participated in or directed surveys for a wide variety of clientele including local municipal and governmental agencies, state agencies, and federal agencies (including the U.S. Army Corps of Engineers). In his career, he has served as a Field Party Chief, Field Supervisor, CAD Technician, Project Manager, and Division Manager. Mr. Teegarden's varied project experience includes high precision survey control, single and multibeam hydrographic surveys, large boundary surveys, surveys for public right-of-way taking, topographic route surveys, mapping of subsurface utilities based on the markings provided by a subsurface utility engineering firm, coastal restoration projects, laser scanning surveys and GPS project surveys, to name just a few. This experience includes over 20 years' experience in directing and performing hydrographic surveys. He has executed and/or supervised numerous hydrographic surveying projects throughout Coastal Louisiana.</p> <p>Morganza to Gulf Reach K and L Levee Lafourche and Terrebonne Parishes, Louisiana Mr. Teegarden conducted a survey of over 11 miles of levee alignment in Lafourche and Terrebonne Parishes. This survey was the basis for a permit application, as well as plans and specifications for the construction of a new levee. This survey also required the location of pipelines located by a magnetometer survey. Mr. Teegarden established GPS control, began completed the required levee cross sections of haul-in section, and completed the hydrographic survey of the adjacent bayou/canal to determine the borrow quantities for the levee lift.</p>

TEC Professional Services Questionnaire

Morganza to Gulf Reach K Marsh Creation Mitigation *Lafourche Parish, Louisiana*

Mr. Teegarden conducted both bathymetric and topographic survey of the Reach K Mitigation area. This 40-acre marsh creation area consists of a network of oilfield canals and shallow ponds. This survey also required the location of various underground utilities and pipelines. Mr. Teegarden and his team collected this survey information using standard GPS technology, as well as a remote operated Z boat for the shallow ponds.

Atchafalaya Delta WMA Campground Improvement Project (AT-20) *CPRA, St. Mary Parish, Louisiana*

Mr. Teegarden and his team conducted topographic, bathymetric and magnetometer services for three sites in Atchafalaya Delta Wildlife Management area. The campground site required a full topographic survey of existing improvements, bathymetric survey and magnetometer survey for the design of a new bulkhead to protect the shoreline from erosion. The other two sites required bathymetric and magnetometer surveys for preparation of proposed dredging to ensure the channels stayed open for boat access.

Lower East Dularge Levee Enlargement *Terrebonne Parish, Louisiana*

Mr. Teegarden and his team conducted topographic and bathymetric survey for the improvements to the Lower Dularge East Levee. This hurricane protection levee in southern Terrebonne Parish required substantial improvements, and Mr. Teegarden conducted this work for the Terrebonne Levee and Conservation District. The work included standard GPS RTK survey work and bathymetric survey using the remotely operated Z-Boat in coastal and marsh environments. All South has also provided post-storm and pre-construction surveys for this levee section.

Mid-Barataria Sediment Diversion *Plaquemines Parish, Louisiana*

Mr. Teegarden and his team conducted topographic and bathymetric surveys for the design of the Mid-Barataria Sediment Diversion Project in the Myrtle Grove area of Plaquemines Parish. This survey required a bathymetric survey of 12,000 feet of the Mississippi River, topographic surveys of the existing Mississippi River Levee and the adjacent woodlands and pasture to the Barataria basin. This project when completed will provide much needed sediment to rebuild the marshlands.

Lake Lery Marsh Creation and Rim Restoration *St. Bernard Parish, Louisiana*

Mr. Teegarden and his team conducted topographic and bathymetric surveys for the design of shoreline armoring and the creation and nourishment of the surrounding marshland. The work included standard GPS RTK survey work in coastal and marsh environments, a bathymetric survey of a large portion of Lake Lery and a magnetometer survey of the proposed borrow area and access routes.

Upper LA 45 Basin Tidal Surge Protection *Lafitte, Louisiana*

Mr. Teegarden and his team conducted topographic, magnetometer and bathymetric surveys for the design of a tidal surge protection system for the Upper LA 45 basin in the Lafitte Levee District. The team surveyed three routes, one along Bayou Barataria for the design of a floodwall and two possible routes for a rear protection levee through swamp and marsh areas. RTK GPS, Robotic Total stations, remotely operated Z-Boat and a Marine Magnetics Sea-Spy magnetometer were used for this project. A drainage map and existing utility map were created for the improvement of drainage flow along LA 45.

Allen Bayou Bank Stabilization Project *Livingston Parish, Louisiana*

Mr. Teegarden and his survey staff prepared a topographic survey of the Allen Bayou Relief Canal in the Denham Springs Area of Livingston Parish. This survey was taken to provide the needed information to prevent erosion along the banks of the Allen Bayou Relief Canal during high water events. Cross sections were taken along the route with additional topographic collected at road intersections and culverts crossings. Plan and profile sheets were created, and the data was also delivered in the USACE. EM format for input into a hydraulic modeling program to aid in the design.

Gheens Natural Gas Levee *Lafourche Parish, Louisiana*

Mr. Teegarden and his staff conducted a topographic survey using RTK GPS and Robotic Total Stations to design levee improvements in the Gheens area. This survey was prepared for the North Lafourche Levee District.

Terrebonne Port Industrial Blvd. North Soil Improvements & Bulkhead *Terrebonne Parish, Louisiana*

Mr. Teegarden and his team prepared a topographic survey and bathymetric survey for the Terrebonne Parish Port Commission of the Thoma-Sea lease area for the design of a new sheet pile bulkhead and soil cement to accommodate a large shipbuilding contract.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
<p>Taylor Casteigne, PLS Professional Land Surveyor, Survey Supervisor</p>
Project Assignment:
Professional Land Surveyor
Name of Firm with which associated:
<p>All South Consulting Engineers, LLC</p> 
Years' experience with this Firm:
4
Education: Degree(s)/Year/Specialization:
Bachelor of Science / 2019 / Geomatics
Active registration: Year first registered/discipline:
2022/ Professional Land Surveyor / Louisiana License No. 5291
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Casteigne graduated from Nicholls State University with a B.S. in Geomatics and has served as surveyor, party chief and draftsman on a variety of surveys. He is well versed in the latest surveying equipment technology to ensure fast and accurate surveys. Mr. Casteigne performs/oversees necessary field work for the survey, manages field crews, and coordinates data processing. He tracks project budgets daily, ensuring that the surveys are completed on time and under budget.</p> <p>Des Allemands Bulkhead Improvements <i>St. Charles Parish, Louisiana</i> Mr. Casteigne performed full topographic and hydrographic services including data collection, data processing, data management, research, CAD, and project budget oversight. This included managing field crews during the data collection process ensuring that everything within the project scope was captured during the fieldwork. Oversight over the drafting process was another key responsibility for this project.</p> <p>Mid Barataria Sediment Diversion <i>Barataria, Louisiana</i> Mr. Casteigne performed full survey services including data collection, data processing, data management, CAD, and project budget oversight. This includes performing the necessary field work for the survey, then processing the data into a fieldbook file. Once the data was in a fieldbook file it is imported into Auto CAD, where the data is used to build a TIN surface. With this surface cross sections are generated over the required areas based on the scope. Contours are then generated showing lines of constant elevation. The budget for the project was tracked daily ensuring that the</p>

TEC Professional Services Questionnaire

survey was completed on time and under budget. This project was done at the request of AECOM for a sediment diversion project spanning for the Mississippi River to the Barataria basin.

Lower East Dularge Levee Enlargement *Terrebonne Parish, Louisiana*

Mr. Casteigne performed full topographic survey and CAD services for the inspection of a levee's elevation along the top to identify if there were any areas in need of material before an impending hurricane. This included performing the necessary field work for the survey, then processing the data into a useable format and imported into Auto CAD.

TE-0165 Houma Navigation Canal (HNC) Bird Island Restoration *Terrebonne Parish, Louisiana*

Mr. Casteigne performed full topographic and hydrographic survey services including data collection, data processing, data management, CAD, and project budget oversight. This project required a variety of hydrographic surveying methods including, single beam sonar, side scan sonar, and magnetometer surveys. This work was done both in the proposed borrow area and around the island itself. Topographic surveying was performed on the island itself. Establishing two deep rod monuments was necessary as well to serve as project control. The purpose of this survey was to assist the rebuild of a migratory bird habitat that had been deteriorated over time.

Beaver Creek Topographic Survey *Livingston Parish, Louisiana*

Mr. Casteigne performed full topographic and boundary services including data collection, data processing, data management, research, CAD, and project budget oversight. This included managing field crews during the data collection process ensuring that everything within the project scope was captured during the fieldwork. Oversight over the drafting process was another key responsibility for this project. This survey was used in the design of a new bulkhead along Beaver Creek to stabilize the banks of the creek.

Northshore Living Shoreline at Goose Point *St. Tammany Parish, Louisiana*

Mr. Casteigne performed full topographic and hydrographic services including data collection, data processing, data management, research, CAD, and project budget oversight. This included managing field crews during the data collection process ensuring that everything within the project scope was captured during the fieldwork. Oversight over the drafting process was another key responsibility for this project. This survey involved using single beam sonar to run cross sections extending out 1200ft into Lake Pontchartrain.

Bayou Terre Aux Bouefs and Bayou La Loutre Obstruction Identification Survey *St. Bernard Parish, Louisiana*

Mr. Casteigne performed full hydrographic services including data collection, data processing, data management, research, CAD, and project budget oversight. This included managing field crews during the data collection process ensuring that everything within the project scope was captured during the fieldwork. Oversight over the drafting process was another key responsibility for this project. This survey was performed using side scan sonar, which allowed for underwater obstructions to be identified in the bayou.

Avoca Island Topographic Survey *St. Mary Parish, Louisiana*

Mr. Casteigne performed full survey services including data collection, data processing, data management, CAD, and project budget oversight. This includes performing the necessary field work for the survey, then processing the data into a fieldbook file. Once the data was in a fieldbook it is imported into Auto CAD, where the data is used to build a TIN surface. With this surface cross sections are generated over the required areas based on the scope. This project was done at the request of Avoca Island for drainage improvements to be made on the island.

Reach K Post Construction *Pointe Aux Chene, Louisiana*

Mr. Casteigne performed full topographic survey and CAD services for post construction inspection of a stretch of levee in order to raise the Levee so that it may serve as a barrier from storm surge located in Pointe Aux Chene, Louisiana. This includes performing the necessary field work for the survey, then processing the data into a useable format. Once the data was in a useable format it is imported into Auto CAD, where the data is used to build a TIN surface. With this surface cross sections are generated over the required areas based on the scope. Contours are then generated showing lines of constant elevation. The budget for the project was tracked daily ensuring that the survey was completed on time and under budget. This included placing LA One Call tickets, giving field crews the list of tasks needed to complete the project, and ensuring the project was completed in an orderly fashion.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Scott Breidenstein CADD Technician
Project Assignment:
CADD Technician / Draftsman
Name of Firm with which associated:
All South Consulting Engineers, LLC 
Years' experience with this Firm:
5
Education: Degree(s)/Year/Specialization:
Technical Diploma, 2020, L. E. Fletcher Technical Community College
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Breidenstein joined the All South team in 2019. His experience includes AutoCAD C3D which he utilizes in survey and design projects that include topographic, boundary, route corridor surveys, hydrographic surveys, ALTAs, field data input, plan and profile sheets, import/export of survey points, proposed design corridors, and volume calculations. Mr. Breidenstein coordinates with field crews, drafters, engineers, and clients to generate AutoCAD C3D drawings and plan sheet sets from the beginning of a project to final stamped plans.</p> <p>TE-0165 Houma Navigation Canal (HNC) Island Restoration Terrebonne Parish, Louisiana Mr. Breidenstein prepared the topographic and hydrographic surveys for the restoration of HNC Island. The goal of this project was to restore the current 27 acres to its original size of approximately 50 acres. Mr. Breidenstein also prepared the permit drawings for the design of this project. Mr. Breidenstein calculated the dredged material and new rock dike containment area using AutoCAD Civil 3D. This project is currently in design and Mr. Breidenstein is coordinating with the project engineers to complete the drawings.</p> <p>Allen Bayou Relief Erosion Control and Bank Stabilization Livingston Parish, Louisiana The project consisted of replacing two locations of existing drainage culvert crossings and bank stabilization along Allen Bayou. Mr. Breidenstein developed the topographic survey plans for this project. Mr. Breidenstein and the project engineers developed the design plans for this project, which included typical sections, cross sections and details. Mr. Breidenstein is currently coordinating with project engineers and geotechnical sub consultants to further develop the project plans and specifications.</p>

TEC Professional Services Questionnaire

Lower Bayou Dularge East Levee Expansion *Terrebonne Parish, Louisiana*

Mr. Breidenstein prepared the existing topographic survey as well as the proposed levee corridor. These plans included existing/proposed profiles and cross sections. The cross sections provided a cut and fill volume report to help determine cost estimates. This project improves the elevations of a levee along the east side of the flood protection levee system for Dularge, LA. The project includes building a new levee to Elevation 12, and grading the existing levee, which currently ranges between Elevation 6-8, into the footprint of the new levee. Mr. Breidenstein is the CAD Technician of this project.

Des Allemands Levee Improvements *Terrebonne Parish, Louisiana*

Mr. Breidenstein prepared the existing topographic & Hydrographic survey as well as the proposed levee corridor. The project was approximately 600 LF. The cross sections provided a cut and fill volume report to help determine cost estimates. This project improves the elevations of an existing berm along Bayou Des Allemands. Mr. Breidenstein is the CAD Technician of this project

Jessie Dufrene Levee Improvements *Lafourche Parish, Louisiana*

Mr. Breidenstein prepared survey maps along the existing Jessie Dufrene Levee, approx. 21,000 LF. The project includes building a new levee to Elevation 7. Also, we had to stabilize a portion of an existing ditch, to do that Mr. Breidenstein calculated the approximate fill and the required cut to obtain the proper safety factor. Baseline maps, plan, profile and cross sections were provided to show the existing levee. Multiple proposed corridors at different elevations were shown on the cross sections to help determine which scenario fit this project. Mr. Breidenstein is the CAD Technician for this project.

Reach K Marsh Mitigation *Lafourche Parish*

Mr. Breidenstein prepared the topographic maps and proposed borrow area plans for this project. The project included defining borrow/dredging areas and marsh creation area. Also, cross sections were created showing the proposed canal elevation and a volume report was created to help determine the cost estimate. In this project were multiple underground utilities that were shown in the provided cross sections. Mr. Breidenstein is the CAD Technician of this project.

Atchafalaya Delta Wildlife Management Area Access Canals *St. Mary Parish, LA 06/19*

Mr. Breidenstein prepared the proposed access canal improvement plans for this project. The project included multiple proposed borrow areas and spoil placement areas along Breaux Pass and Cul De Sac Pass. Using the hydrographic survey Mr. Breidenstein was able to determine the borrow area volumes required to accomplish the desired elevations on the shores of this project. Mr. Breidenstein coordinated with the engineers to produce proposed improvements to this project.

TEC Professional Services Questionnaire

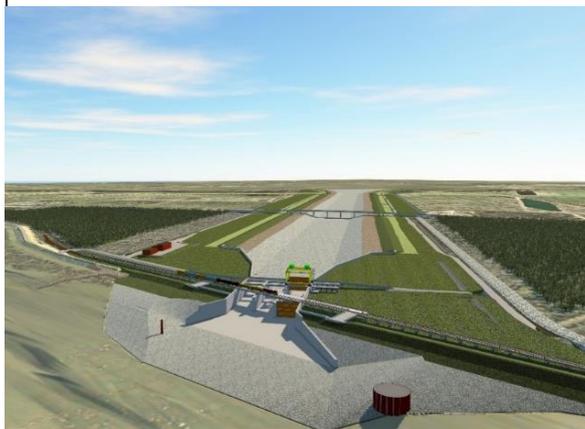
L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 1

<p>Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>	
<p>Terrebonne Houma Navigation Canal Island Restoration <i>Plaquemines Parish, Louisiana</i></p> <p>Coastal Protection Restoration Authority Renee Bennett, PMP, Project Manager 150 Terrace Ave. Baton Rouge, LA 70802 (225) 342-4525</p>	<p>All South is leading a team of professionals for the design of the TE-0165 Bird Island restoration project. <i>This project involves the rehabilitation of an existing island several miles south of Cocodrie, along the Houma Navigation Canal.</i> The island was heavily damaged over time due to wind and waves forces, as well as numerous Hurricanes over time. Prior to restoration, the island totals approximately 27 acres in size, and the proposed restoration will restore a significant percentage of the island, result in an approximately 42-acre site.</p>	
	<p>This island is being designed to counteract the erosion wind and wave energy through the use of a perimeter rock dike and strategically placed offshore breakwaters. Internally, the island is being designed with several bird species in mind. In order to restore the natural habitats of these species, several habitat types are being designed, each with its own set of parameters.</p>	
	<p>The island will include wetland marsh habitats with direct connections to open water to allow for tidal exchange through a rock weir structure. This design will afford protection to the area while allowing positive tidal exchange to nourish the marsh. The marsh is generally surround by a shrub nesting habitat, design to support bird species that prefer higher elevations and nesting off the ground within the shrub vegetation. The island also contains a ground nesting feature that is designed at the highest elevation with a limestone bedding to support ground nesting species.</p> <p>The project takes into account water elevations through local gauge data and uses marsh creation and geotechnical design techniques and procedures guided by the CPRA marsh creation guidelines and geotechnical engineering guidelines. The All South team modeled the wave characteristics using STWave and predicted wave runup heights using the methods contained within the Coastal Engineering Manual. <i>The project includes nearly 500,000 CY of hydraulically dredged sand material from approximately 10 miles south of the project. This operation contains multiple booster pumps and will take over two months to complete. The project contains over 40,000 tons of 400-lb rip rap to construct external containment.</i> Construction will be planned in detail to work around winter water levels and bird nesting habitat periods.</p>	
<p>Completion Date (Actual or estimated):</p>	<p align="center">Estimated Cost:</p>	
<p>Ongoing (02/2025 est.)</p>	<p align="center">Entire Project:</p> <p align="center">\$22,000,000,000 est.</p>	<p align="center">Work for which Firm was Responsible:</p> <p align="center">\$2,100,000</p>

TEC Professional Services Questionnaire

PROJECT NO. 2				
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:			
<p>Mid Barataria Sediment Diversion <i>Plaquemines Parish, Louisiana</i></p> <p>Coastal Protection Restoration Authority Brad Barth, P.E., CPRA Project Manager 150 Terrace Ave. Baton Rouge, LA 70802 (225) 342-4525</p>	<p>The Mid-Barataria Sediment Diversion is part of CPRA's Mid-Basin Sediment Diversion Program. It is a river sediment diversion project designed to reintroduce sediment into the Barataria Basin. As subconsultant to AECOM, All South's project responsibilities include the development of the project's civil site plans, secondary project features, structural design of all facility buildings and survey lead.</p> <p>Mitigation: Responsible for the survey, photo documentation, and development of preliminary mitigation plans and cost estimates for areas to be impacted by the diversion outfall including: Myrtle Grove, a water fronting subdivision with a marina; Happy Jack, a one road water fronting subdivision with a marina; several fishing villages, a 7-mile asphalt highway stretch with 2 slab span bridges. Responsibilities include:</p> <ul style="list-style-type: none"> • Elevated roadways (asphalt and gravel) to above projected flood level for access to the property and dwellings, as well as upgrading all associated utilities including drainage, water, sewer (including lift stations), power, structures, parking lots, etc. • Replacing bulkhead structures as needed to minimize impact from diversion outfall along subdivision and some villages including walkways, boathouses with piers, steps, boardwalks, etc. <p>Civil Site Design: All South is responsible for:</p> <ul style="list-style-type: none"> • 150' x 500' Reservation/ building layout built on a surcharged embankment to final El. +10.0 ft on 3:1 slope out to existing ground with sewer (including treatment plant), water, drainage, & fire water systems layout and 24' aggregate/asphalt access roads • 22 bay parking areas with handicapped access & perimeter fencing • Boat launch & dock in the river and back bay area with aggregate/asphalt access. <p>Structural Design: Responsible for the foundation and structural building design for:</p> <ul style="list-style-type: none"> • 6,500 SF operations/maintenance and administration building on 65' long, 12" diameter timber pile footings supporting 2'-6" depth grade beams and 6"-10" thick slab to Final BFE El +11.0 ft • 3,220 SF boat storage building with 2-pile 65' long, 12 inch diameter timber pile footings supporting 2'-6" grade beams with 10" thick slab to Final BFE El. +11.0 ft. <p>Surveying: Lead survey consultant tasked with establishing and verifying the GPS survey control, as well as:</p> <ul style="list-style-type: none"> • Hydrographic surveys of the Mississippi River which will include multi-beam and single beam survey data • Cross sections and topography of the proposed conveyance channel route from the Mississippi River to the rear non-federal levee • Topographic survey of LA Hwy 23 done in accordance with the LADOTD survey requirements, as well as cross sections of the Mississippi River levee • Wick drain settlement monitoring, inundation risk surveys, benchmark installations & staff gage installations 			
Completion Date (Actual or estimated):	Estimated Cost:			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%; text-align: center;">Entire Project:</th> <th style="width: 50%; text-align: center;">Work for which Firm was Responsible:</th> </tr> <tr> <td style="text-align: center;">\$2,000,000,000 est.</td> <td style="text-align: center;">\$2,200,000</td> </tr> </table>	Entire Project:	Work for which Firm was Responsible:	\$2,000,000,000 est.
Entire Project:	Work for which Firm was Responsible:			
\$2,000,000,000 est.	\$2,200,000			
Ongoing- various phases				



TEC Professional Services Questionnaire

PROJECT NO. 3										
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:									
<p>Lake Lery Marsh Creation and Rim Restoration <i>St. Bernard Parish, Louisiana</i> St. Bernard Parish Government John Lane, SBPG Coastal Manager 8201 W. Judge Perez Dr. Chalmette, LA 70043 (504) 278-4227</p>	<p>All South is lead coastal engineer and surveying consultant for the Lake Lery Marsh Creation and Rim Restoration project. The project includes 401.2 acres of intermediate marsh creation and nourishment and 2.4-miles of embankment stabilization, improvement, and armoring. This project will re-establish a defined bank line along the northwestern Lake Lery rim and improve protection of the proposed marsh creation and nourishment project behind the rim. Lake Lery has been the site of prior CPRA projects along the south rim (BS-16) and in eastern portions of the lake (BS-17). This project will form Phase III of the lake restoration along the northwestern rim.</p> <p>Marsh settlement curves and armored protection embankment designs were developed using CPRA Marsh Creation Design Guidelines for a 20-yr project life. Feature heights were analyzed against predicted wave runup, sea level rise, and subsidence over this period to ensure the project remains protected.</p> <p>All South is working with St. Bernard Parish Government in conjunction with CPRA to share and relay information on all phases. All South's scope includes all coastal engineering, coastal wave modeling, surveying services, design, and construction services.</p> <p>All South is responsible for the following deliverables:</p> <ul style="list-style-type: none"> Historical Data Gap Analysis Protection Alternatives Report, including 7 alternative designs featuring enlarged earthen sections, reduced earthen sections incorporating armoring products, and LWA breakwaters Establishing Design Water Levels, corrected for the 19-year tidal epoch STWAVE Numerical Wave Modeling and Runup Analysis Preliminary and Final Engineering Plans, Specifications, and Cost Estimates Construction Engineering and Inspection (during construction) 									
										
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Completion Date (Actual or estimated):</th> <th colspan="2" style="text-align: center;">Estimated Cost:</th> </tr> <tr> <td></td> <th style="width: 30%;">Entire Project:</th> <th style="width: 30%;">Work for which Firm was Responsible:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">02/2024</td> <td style="text-align: center;">\$19,793,231</td> <td style="text-align: center;">\$1,371,776</td> </tr> </tbody> </table>		Completion Date (Actual or estimated):	Estimated Cost:			Entire Project:	Work for which Firm was Responsible:	02/2024	\$19,793,231
Completion Date (Actual or estimated):	Estimated Cost:									
	Entire Project:	Work for which Firm was Responsible:								
02/2024	\$19,793,231	\$1,371,776								

TEC Professional Services Questionnaire

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Morganza to Gulf Reaches K & L Levee Improvements <i>Plaquemines Parish, Louisiana</i></p> <p>South Lafourche Levee District Windell Curole, General Manager 17904 Highway 3235 Galliano, LA 70354 (985) 632-7554</p>	<p>The community of Point Aux Chenes sits on the border of Lafourche and Terrebonne Parishes; and as such, work in this area requires coordination between the two Parish Governments, North and South Lafourche Levee Districts, and Terrebonne Levee District. All South has provided permit and right of way acquisition, surveying, engineering design, construction management and inspection on several projects in this area spanning the last 10 years including:</p> <p>Permit Acquisition: All South provided necessary services to apply for and acquire a Coastal Use and 404 Permit for 11 miles of levee improvements, including 2 floodgates, and associated features. Services included a topographic and bathymetric survey and a wetland delineation to identify the extent and types of wetlands that could be impacted. The project area included over 300 acres of brackish and fresh wetlands, shallow open water, and existing canals. All South prepared the necessary permit application and drawings and navigated the process through USACE and LaDNR.</p> <p>On-Site Excavation: This project consisted of the design and construction of approx. 6 miles of earthen levee. This levee was constructed using dredge spoil from Grand Bayou. This construction option significantly reduced costs, while avoiding impacts to wetlands and other coastal resources in the area. All South performed topographic and bathymetric surveys and supervised the geotechnical work by a subcontractor. The design was complicated by the close proximity of Grand Bayou to the new levee, as well as several pipelines in the area. All South provided construction management and inspection services during construction. 1.66M CY of dredged material is currently being shaped over the 6 mile stretch to raise the level of protection to an EL +9.5 ft.</p> <p>Haul-In Levee Section: This project consisted of the construction of approx. 2000 LF of earthen levee between the Point Aux Chenes Floodgate and Grand Bayou. Due to unique soil conditions, this levee was constructed of material hauled in from an offsite location, which reduced the footprint of the project ROW and mitigation costs. All South performed topographic and bathymetric surveying and supervised the geotechnical work by a subcontractor. We developed a cost-effective design which achieved the project goals and met the requirements of the CPRA. All South provided construction management and resident inspection services during construction. Approximately 10,000 CY of hauled in material was utilized in raising this +/-2,000 LF section by 2.5 ft to establish an EL +10.0 ft level of protection elevation.</p>	
	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Ongoing – various phases	\$10,390,645	\$3,265,918

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Morganza to Gulf Reach K Marsh Creation Mitigation <i>Lafourche and Terrebonne Parishes, Louisiana</i></p> <p style="text-align: center;">South Lafourche Levee District Windell Curole, General Manager 17904 Hwy 3235 Galliano, LA 70354 (985) 632-7554</p>	<p>The Morganza to the Gulf Reach K Marsh Creation Mitigation Project forms part of the required mitigation effort necessary due to the Reach K and L levee construction projects. All South developed the mitigation plan as part of the Reach K and L levee permitting scope. This plan included the construction of 42.9-acres of fresh and brackish marsh in southern Lafourche Parish.</p> <p>The 42.9-acre project site consists of broken marsh that will be nourished with 287,770 CY of hydraulically dredged material that will be pumped from an adjacent 10,000 LF borrow area. The material is contained by two existing levees to the north and east, and by two proposed earthen containment dikes to the west and south.</p> <p>All South coordinated a team of professionals on the project. As prime, All South performed all design, surveying, and construction administration and inspection on the project. All South analyzed the geotechnical stability analysis results to prepare design marsh elevations and stable containment dike parameters. Marsh settlement curves and containment dike heights were developed using current CPRA Marsh Creation Design Guidelines.</p> <p>All South had extensive coordination with CPRA throughout construction. This project shares a project site with the Reach L Levee system, which was concurrently under construction through CPRA, for which All South also provided intermittent survey and inspection services as requested by CPRA.</p> <p>Deliverables include:</p> <ul style="list-style-type: none"> • Topographic, bathymetric, and magnetometer surveys performed by All South survey crew • Borrow Area and Marsh Creation Area analysis and design • Coordination with pipelines and temporary containment design through these features • Construction Administration and Inspection 	
	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
06/2020	\$2,205,990	\$355,990

TEC Professional Services Questionnaire

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Atchafalaya Delta WMA Boat Access and Campground Improvements <i>St. Mary Parish, Louisiana</i></p> <p>Coastal Protection Restoration Authority Renee Bennett, PMP, Project Manager 150 Terrace Ave. Baton Rouge, LA 70802 (225) 342-4525</p>	<p>All South is performing coastal engineering and hydrographic services for the Atchafalaya Delta WMA Boat Access and Campground Improvements project for the Coastal Protection and Restoration Authority. As team lead, All South is coordinating a team of professionals to provide all geotechnical, survey, and design related services. All South staff is providing all coastal and structural engineering design services; all topographic, hydrographic, and magnetometer survey services; and all construction administration and inspection services.</p> <p>AT-19 includes <i>mechanically dredging 56,000 CY of material from Breaux Pass and Cul-de-Sac Pass in the lower Atchafalaya Delta WMA and placement in the permitting placement area along the existing bank line.</i> All South designed all features to conform to existing permitted conditions.</p> <p>AT-20 includes scope at a nearby location in the WMA to <i>design a 1,200 LF steel sheet pile bulkhead using 45-ft steel sheets tied-back to proposed timber piles. The project includes 2 proposed wooden boat access piers and an 80-ft. timber jetty utilizing a Wakefield sheet arrangement for water application. The project also includes incidental dredging as backfill behind the sheet pile bulkhead.</i> All South value engineered the timber jetty to meet the needs of CPRA and LDWF. This system was originally proposed as a rock dike by LDWF; however, geotechnical stability issues made this system infeasible. To meet LDWF's need to divert flow in lieu of erosion protection, All South designed the lightweight timber jetty to satisfy stability concerns and LDWF's project intent.</p>	
		
		
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
10/2019	\$2,897,505	\$655,000

TEC Professional Services Questionnaire

PROJECT NO. 7	
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
<p>Des Allemands Flood Control Improvements <i>Lafourche Parish, Louisiana</i></p> <p>North Lafourche Levee District Dwayne Bourgeois, Executive Director 3862 Hwy 1, Raceland, LA 70394 (985) 537-2244</p>	<p>The Des Allemands Community has suffered severe flooding issues for several years. All South has completed several Flood Control Improvement projects to improve flood protection and drainage in this area. These improvements include the design of a new sheet pile Bulkhead, levee design, and design of a new drainage pump station.</p> <p><u>Des Allemands Bulkhead</u> This \$3.6 million disaster CDBG recovery project includes 2,000 LF of steel and vinyl sheet pile walls, fill between the existing and new bulkhead, and 650 tons of stone rip-rap to shore up the existing levee system for flood mitigation purposes. As the design engineer, All South managed the collection of field data by our Land Surveyors and Geotechnical consultants and developed a plan for a steel bulkhead that will increase protection by over 2 feet. The plan replaces drains that allow water from Bayou Des Allemands to back flow in to the neighborhood. New drains have been constructed that prevent this back flow in the future. Most notably, All South had to design these improvements around various private docks, wharves, and an active seafood wholesaler without daily activity interruptions. All South's responsibilities for this project include: Preparation of cost estimates, scope narratives, maps, and exhibits for preparation of a CDBG-Disaster Recovery Program application; Preparation of design documents for Bidding and Contract Administration; Acquiring 404/Section 10 permits; Support of Right of Way Acquisition; Construction Admin and Inspection.</p> <p><u>Des Allemands Levee Improvements</u> This project consists of clearing and removing trees within the proposed levee footprint, constructing a 600 LF levee to EL +6.5, placing over 300 tons of rip-rap embankment armor, and hydroseeding the new levee. All South reviewed project surveys, designed the layout of the levee, coordinated with nearby homeowners, coordinated with Entergy to have utilities relocated and designed the plans and specifications for the project. ASCE was responsible for all Construction Admin and Inspection.</p> <p><u>Des Allemands Pump Station</u> All South also completed the design of a new drainage pump station, facilitated the public bid process, and provided construction administration and inspection for this project. Our firm was responsible for the structural analysis and design of a new Steel Sheet Pile wall system to stabilize the project area. We also designed a cantilevered SSP wall system to protect against seepage at the location where the stations discharge pipes cross over the protection levee. This project included the installation of 55 LF of steel sheet pile; 820 LF of treated timber piles; pre-cast concrete deck structure, 2-20" axial flow drainage pumps with natural gas fired engines, extension of the natural gas distribution system; 270 LF of 24" steel discharge pipe; rip-rap protection at suction and discharge locations; galvanized trash screens; pre-engineered metal building pump house; new electrical components including automation controls. The new pump station has the capacity to pump over 8,000 PGM as well as have a draw down capacity of 1.5' lower than the existing pump station. Additional measures have been taken for the future needs.</p>
	
	
Completion Date (Actual or estimated):	Estimated Cost:
	Entire Project:
	Work for which Firm was Responsible:
05/2020	\$4,454,249
	\$561,964

TEC Professional Services Questionnaire

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Lower East Dularge Levee Enlargement <i>Terrebonne Parish, Louisiana</i> Terrebonne Levee and Conservation District Reggie Dupre, Executive Director 220-A Clendenning Rd. Houma, LA 70363 (985) 868-8523</p>	<p><i>All South completed topographic survey and civil design of 37,000 LF of earthen levee section.</i> All South provided design analysis and drawings for the Terrebonne Levee and Conservation District to consider options to increase the existing levee crown from an average crown elevation of +8.0 ft to a revised elevation of EL. +11.0 ft – EL. +12.0 ft. Each option included an in-depth review of permitting limits, ROW acquisitions, mitigation, wave overtopping, wave scour, and system stability.</p> <p>All South provided multiple design recommendations based on the Owner's need, including a phased construction plan for the most economical and cost feasible process possible. To date, approximately 640,000 CY of borrow material have been hauled and installed on 17,000 LF of levee in order to raise the levee +/- 5 ft to an EL +12.0' level of protection. It is anticipated that another 500,000 CY of borrow is required to lift the remaining 20,000 LF.</p> <p>Topographic survey was performed at 250-ft intervals on both the flood and protected sides of the levee. All South is currently providing construction administration and resident inspection services for this project</p>	
		
		
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Ongoing	\$12,027,331	\$1,517,331

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Allen Bayou Bank Stabilization and Drainage Improvement <i>Livingston Parish, Louisiana</i></p> <p>Livingston Parish Government Heather Crain, Grant Coordinator 0355 Government Boulevard, Livingston, Louisiana 70754 (225) 686-4415</p>	<p>The Allen Bayou Bank Stabilization and Drainage Improvement project is located in Livingston Parish and involves the hydraulic analysis of the Allen Bayou Relief Channel, along with the design of hydraulic improvements and embankment stabilization measures to mitigate future damages.</p> <p>The Allen Bayou Relief Channel is designed to relieve Allen Bayou during high flow conditions and divert flow directly into the Amite River. The existing channel morphology includes significant cut banks due to a highly irregular natural flow path. The channel measures approximately 50 ft. bank-to-bank with 35 ft. slope faces with between 1:1 – 2:1 slopes (H:V). Multiple culvert crossings are included and utilized as flow control mechanisms.</p> <p>All South is prime consultant and coordinating a team of professionals to perform H&H modeling for the existing channel and backwater flooding from the Amite River, environmental permitting and agency reviews, and geotechnical engineering. All South performed all surveying services and embankment stabilization design on the project, as well as all project management, construction administration, and inspection services.</p> <p><i>The project deliverables include:</i></p> <ul style="list-style-type: none"> • <i>Detailed H&H analysis to demonstrate pre- vs. post-improvement flow capacities and develop parameters for stabilization product selection</i> • <i>Embankment Re-alignment, shaping, and stabilization to reduce erosive conditions and stabilize the improved bank line</i> • <i>Erosion protection block mattresses to provide adequate protection from velocity and shear forces, while encouraging vegetative growth</i> 	
		
		
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
08/2024 est.	\$765,000	\$165,000

TEC Professional Services Questionnaire

PROJECT NO. 10								
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:							
<p>Beaver Creek Bank Stabilization and Drainage Improvements <i>Livingston Parish, Louisiana</i></p> <p>Livingston Parish Government Heather Crain, Grant Coordinator 0355 Government Boulevard, Livingston, Louisiana 70754 (225) 686-4415</p>	<p>Beaver Creek is part of the NRCS Emergency Watershed Protection Program currently underway in Livingston Parish. Beaver Creek consists of approximately 1,100 linear feet of eroded bank face. The creek bed is approximately 25 ft. below the top of the adjacent bank. Over time, flows in the area have increased significantly to the point that the bank has eroded to a near vertical position, creating a very unstable condition. Further, because the vertical erosion is located approximately 20 ft. from existing residential structures, there is minimal ability to naturally grade the site. At the far downstream end of the project, Beaver Creek runs adjacent to multiple, large oxidation ponds. These ponds will also require stability analyses for protection as related to construction.</p> <p><i>All South was tasked to protect the bank. The channel measures approximately 60 ft. bank-to-bank, with minimal room to cut a more stable bank slope.</i> All South coordinated a team of professionals to perform environmental permitting and agency reviews, as well as geotechnical engineering for stability. Our team performed all surveying services and engineering design on the project, as well as project management, construction administration, and inspection services.</p> <p>The project involves vertical sheet pile protection. A cantilever system is preferred to minimize residential impacts, but due to the vertical height involved, a tie-back system may be required. All South is working with the geotechnical consultants to verify feasibility. All South is reviewing options of "stepping" the existing grade down to minimize the vertical protection face, which will reduce the required length of sheets, and overall project costs.</p> <p><i>The project deliverables include:</i></p> <ul style="list-style-type: none"> • <i>Embankment Re-alignment, shaping, and stabilization</i> • <i>Steel sheet pile installation on cantilever to provide adequate protection from velocity and shear forces</i> 							
								
	<p>Completion Date (Actual or estimated):</p> <p style="text-align: center;">09/2023</p>	<p style="text-align: center;">Estimated Cost:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Entire Project:</th> <th colspan="2">Work for which Firm was Responsible:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">\$2,722,481</td> <td style="width: 35%;"></td> <td style="text-align: center;">\$222,481</td> </tr> </tbody> </table>		Entire Project:	Work for which Firm was Responsible:		\$2,722,481	
Entire Project:	Work for which Firm was Responsible:							
\$2,722,481		\$222,481						

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. IMC Construction	Jefferson Parish	Jefferson Parish filed 3 rd party demand to All South Consulting Engineers, LLC. Status is pending
2.		
3.		
4.		

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

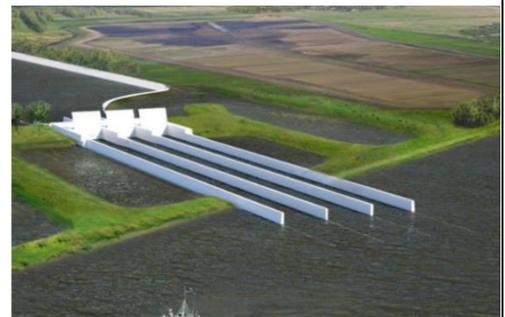


All South Consulting Engineers, LLC is a Limited Liability Company owned by Timothy Bonura, Jens J. Nielsen Jr., and Stephen Smith. Established in May 2004, All South is a multi-disciplinary firm that provides Civil and Structural Engineering, Land and Hydrographic Surveying, Program and Grant Management, Construction Administration and Inspection, and Disaster Management to federal, state, and municipal agencies, as well as, private clients throughout the Gulf Coast.

» SPECIALIZED EXPERIENCE «

All South has substantial experience in the Civil Engineering, Project Management, Land Surveying, and Resident Inspection services pertinent to the scope of work outlined in the request for this proposal. ***We offer a plethora of knowledge and experience related to Coastal Restoration Projects.*** All South has worked on coastal projects 2005, which started with building and repairing levees and flood protection structures, and now encompasses a wide range of coastal projects including:

- Building /repairing levees / flood protection structures
- Earthwork and Site Development
- Earthen Levee Construction and Enhancement
- Erosion Control Structures
- Hydraulic and Mechanical Dredging
- Drainage Pumping Station Design
- Structural Analysis and Design of Floodgates
- Floodwalls and Platform
- Bulkhead Design
- Marsh Nourishment and Marsh Creation Design



TEC Professional Services Questionnaire

All South's Coastal experience includes the following:

WORK SCOPE SPECIALTY	HIGHLIGHTED FEATURE
<i>Earthen Levee Construction and Enhancement</i>	➡ <i>over 150 miles in Design and Construction</i>
<i>Hydraulic and Mechanical Dredging</i>	➡ <i>over \$122,000,000 in Construction</i>
<i>Drainage Pumping Station Design</i>	➡ <i>over 20 stations, over \$60,000,000 in Construction</i>
<i>Bulkhead Design</i>	➡ <i>over 10,000 LF</i>
<i>Marsh Nourishment & Marsh Creation Design</i>	➡ <i>over 500 acres</i>
<i>Embankment and Shoreline Restoration</i>	➡ <i>over 10 miles</i>
<i>Construction Administration and Inspection</i>	➡ <i>over \$500,000,000 in Construction, including: over \$100,000,000 in Coastal Flood Protection</i>
<i>Owner's Representation</i>	➡ <i>over \$1,500,000,000 in Construction & Project Mgmt</i>

» FIRM CAPABILITIES AND FIELD EQUIPMENT «

Our staff performs a wide variety of design and administrative services for our clients. These services span multiple design specialties, and we rely on this versatility to offer a more complete service. All South's specialties span from design, to construction and project management, to onsite resident inspection, to a variety of surveying applications. More specifically, a list of our applicable specialties for this proposal is included below.

ENGINEERING DESIGN		
Water <ul style="list-style-type: none"> • Water Modeling • Water Treatment • Water Distribution Systems Drainage <ul style="list-style-type: none"> • Hydraulic/Hydrologic Studies • Collection Systems • Open Channels (Structural/Earthen) • Retention Ponds • Detention Ponds • Pump Stations Sewer <ul style="list-style-type: none"> • Computer Modeling • Treatment Plants • Collection Systems • Lift Stations • Force Mains 	Coastal <ul style="list-style-type: none"> • Land Development • Levees • Wetland Development • Marsh Re-creation • Mitigation • Dredging Flood Control <ul style="list-style-type: none"> • Locks • Flood Gates • T-Walls • I-Walls • Earthen Levees • Structural Levees • Sheet Pile Structures Land Development <ul style="list-style-type: none"> • Civil Site Services 	Transportation <ul style="list-style-type: none"> • Traffic Counts • Traffic Impact Analysis • 3D Modeling • Concrete Roadway • Asphalt Roadway • Bridge Design Recreational <ul style="list-style-type: none"> • Recreational Fields • Bicycle/ Pedestrian Paths • Master Plans Public Utilities Structural <ul style="list-style-type: none"> • Buildings • Retaining Walls • Shallow and Deep Foundations • Existing Facility Structural Analysis
SURVEYING	PROGRAM/ GRANT MANAGEMENT	CONSTRUCTION MANAGEMENT
<ul style="list-style-type: none"> • Boundary/ALTA-NSPS Survey • Construction Survey • Control Survey • Data Processing • Elevation Survey • GIS Data Acquisition • HDS (High Definition) Laser Scanning • Hydrographic Survey • Pipeline Survey • Topographic Survey • Right of Way 	<ul style="list-style-type: none"> • Grant Writing and Management • Public Assistance • Application Development • Planning • Cost Estimating • Reimbursements • Scheduling • Plan Review • Document Control • Program Database Development • Problem Solving 	<ul style="list-style-type: none"> • Bidding and Advertising • Resident Project Representative • Document Control • Cost Control • Safety Review • Field Engineering • Close Out Documentation • As Built Drawing Development

TEC Professional Services Questionnaire

Our survey crews use the latest of field equipment to deliver for our clients, including:

• Leica GS-14 GPS Receivers	• G-882 Magnetometer
• AutoCAD Stations Civil 3D, Microstation, InRoads, CadConform	• Four wheel off road vehicles / marsh buggies
• 26' Scully Aluminum Boat with Dual 150 h.p. motors	• 14' Aluminum Flat Boat
• DJI Inspire 2 Aircraft with Zenmuse X4S Payload	• DJI Phantom 4 Advanced Aircraft
• 6' Z-boat, remotely operated hydrographic survey boat	• DJI Mavic Pro Aircraft
• Odom Hydrographic CV100 dual frequency Echosounder	• Hypack – Hydrographic software

» PROFESSIONAL TRAINING AND EXPERIENCE «

All South's licensed engineers have a total of 296 combined years of experience performing civil works projects in South Louisiana. Our licensed professionals all obtain over 15 hours annually of continuing education along with several in house seminars. These courses are all designed to make sure our staff is up to date with all the latest construction materials and methods. All South maintains annual agreements with AutoCAD and Civil 3D to keep us up to date with the latest computer software's. Each design professional researches the proper continuing education courses to help further their experience in the proper fields.

Our team of Professional Engineers, Project Managers, Construction Managers, and Resident Inspectors obtain professional qualifications that allow for satisfactory work, which cumulatively include:

- | | |
|---|--|
| • ATSSA Traffic Control Supervisor/ Technician/ Flagger | • USACE Certified in Construction Quality Management for Contractors |
| • LaDOTD Asphalt Paving Inspector/Technician | • Veriforce Certified OQ in Excavating, Trenching, and Shoring |
| • LaDOTD Density Testing for Embankment | • Veriforce Certified in CCT |
| • LaDOTD Base Course & Base Course Inspection | |
| • USACE Resident Inspector/Disaster Recovery Monitor | |

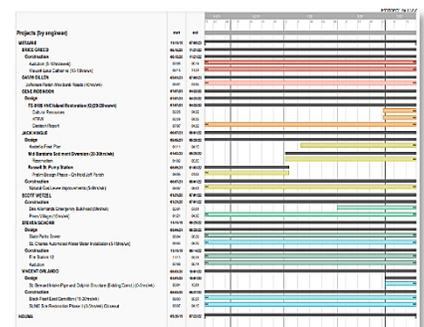
» SIZE OF FIRM «

The All South staff includes 77 professionals driven to excellence and focused on our clients' needs. We are made up of 15 Louisiana Licensed Professional Engineers, 8 Engineering Interns, 2 Professional Land Surveyors, and 14 program and grant management personnel. Our staff also includes program managers, CADD technicians/draftsmen, grant specialist, field monitors and administrative support staff, all of which provide years of experience to help ensure that our work is exceptional.

» CAPACITY FOR TIMELY COMPLETION «

With 77 employees and ample resources, All South has more than enough capacity to meet any deadlines that the Parish requests. Our team is committed to and capable of meeting all schedules and deadlines that the Parish requests to ensure timely completion of all projects.

Additionally, we will utilize Team Gantt software for this project as a means of communication and accountability between consultants and Parish personnel. Team Gantt is an excellent project management tool designed to help create, manage, and finish projects on time and on budget. This software allows us to change start and end dates, reorder tasks, and adjust timelines seamlessly. It allows us to see every project update and document on a single page and quickly share them with both internal and external stakeholders. Team Gantt allows us to effectively manage resources, stay on budget, and ensure everyone is working but not overloaded. We can compare the original timeline projection with the actual timeline of the project with a baseline report. Parish personnel will be issued access to Team Gantt, so they can remain updated on the progress of the project at their own convenience.



TEC Professional Services Questionnaire

All South takes pride in the quality control taken to ensure our design and management practices account for accuracy, schedule, and costs for every project. If selected, All South will implement our quality control and assurance principles to the Jefferson Parish Government projects through our qualified staff, innovative scheduling software, and innovative design practices to control cost.

» PAST PERFORMANCE «

Over the past 20 years, All South has developed an outstanding reputation as one of the Gulf South's leading Engineering and Surveying firms. Aside from our technical experience, All South stands out amongst competitors because of our unrivaled devotion to our clients and ability to meet their needs. Our past performance within Jefferson Parish has given us a keen and nuanced understanding of the inner working of the various Parish departments, as well as the likings and needs of the Parish as a whole.

Our background has bred a sense of commitment, comradery, and the willingness to fight for our clients through every phase of a project. The satisfaction expressed by our clients can be directly accredited to not only our ability to deliver exceptional work that meets all contractual, time, and budgetary obligations, but also the genuine and lasting relationships we build throughout the process. As a direct result, our clients continue to choose All South. We believe this trend speaks very highly to our staff, our commitment, and our results. The staff members included in this proposal will employ these same levels of client devotion and satisfaction to Jefferson Parish.

Since its inception in 2004, All South has reached innumerable professional accomplishments within each aspect of our wide variety of disciplines. Some of our notable accomplishments include:

- ✓ **American Council of Engineering Companies of Louisiana 2020 Engineering Excellence Awards**
 - Structural Systems Grand Award Winner: Terrebonne Port Industrial Blvd N. Soil Improvements & Bulkhead
- ✓ **American Concrete Institute Louisiana Chapter's 22nd annual Excellence in Concrete Construction Awards in recognition of outstanding and innovative use of concrete products:**
 - 2019 Infrastructure Award of Merit: Terrebonne Port Industrial Blvd N. Soil Improvements & Bulkhead
- ✓ **American Concrete Institute Louisiana Chapter's 22nd annual Excellence in Concrete Construction Awards in recognition of outstanding and innovative use of concrete products:**
 - 2019 Repairs and Restoration Project Award of Merit: West End – Breakwater Drive Boat Launch Project

» LOCATION OF THE PRINCIPAL OFFICE «

All South's home office is located at 652 Papworth Avenue, Metairie, Louisiana 70005.

» ADVERSARIAL LEGAL PROCEEDINGS «

Please refer to section M of this TEC Questionnaire.

» PRIOR SUCCESSFUL COMPLETION «

Please refer to the project descriptions listed above to see All South's prior successful completion of similar projects, as well as their respective verifiable references. All South has maintained a strong and successful working relationship with Jefferson Parish since 2004 and has continuously received positive feedback from Parish officials and personnel. We have completed millions of dollars in construction of Jefferson Parish infrastructure and look forward to continuing this great relationship.

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

Signature: _____

Print Name: Timothy P. Bonura, P.E.

Title: Managing Partner

Date: July 16, 2024