



STATEMENT OF QUALIFICATIONS

To Provide Routine Engineering Services for Drainage
Projects (RFQ NO. 23-032)

PRESENTED TO
Jefferson Parish

SUBMITTED BY
Royal Engineers and Consultants, LLC

DATE
December 8, 2023



December 8, 2023

**Jefferson Parish
SOQ No. 23-032,
Resolution No. 142993**

**Statements of Qualifications
Jefferson Parish Technical
Evaluation Committee (TEC)
Professional Services
Questionnaire for Routine
Engineering Services for Drainage
Projects**

COVER SHEET

Royal Engineers and Consultants, LLC
1501 Religious Street, Suite C
New Orleans, Louisiana 70130
504.283.9400 (O) 504.283.9001 (F)

Primary Contact
Michael Pugh, P.E.
President
mpugh@royalengineering.net

Technical Evaluation Committee (TEC) Questionnaire
Instructions

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

A. Project Name and Advertisement Resolution Number:

SOQ 23-032 Resolution No. 142993
To Provide Routine Engineering Services for Drainage Projects

B. Firm Name & Address:

Royal Engineers and Consultants, L.L.C. 1501 Religious Street, Suite C
New Orleans, Louisiana 70130 Phone: 504-283-9400
Fax: 504-283-9001

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:

Michael L. Pugh, PE, President
1501 Religious St., New Orleans, LA 70130
O (504) 283-9400 | F (504) 283-9001 | mpugh@royalengineering.net

PE Civil 30911, LA Expires 3-31-2024

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.

Katherine Foreman, PE
1501 Religious St., New Orleans, LA 70130
O (504) 283-9400 | F (504) 283-9001 | KForeman@royalengineering.net
PE Civil 46031, LA, Expires 3-31-2024

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

| | | |
|--------------------------------------|----------------------------------|-----------------------------------|
| <u>11</u> Administrative | <u>0</u> Estimators | <u>0</u> Specification Writers |
| <u>3</u> Architects (Licensed) | <u>0</u> Geologists | <u>2</u> Structural Engineers |
| <u>0</u> Chemical Engineers | <u>0</u> Geotechnical Engineers | <u>0</u> Graduate Engineers |
| <u>3</u> Civil Engineers | <u> </u> Interior Designers | <u>14</u> Project Managers |
| <u>11</u> Construction Inspectors | <u>0</u> Landscape Architects | <u>10</u> Clerical |
| <u>5</u> Ecologists | <u>0</u> Land Surveyor | <u>3</u> Grant/Funding Specialist |
| <u>0</u> Electrical Engineers | <u>0</u> Mechanical Engineers | <u>0</u> Sanitary Engineers |
| <u>5</u> Engineer Intern | <u>1</u> Environmental Engineers | |
| <u>0</u> Professional Land Surveyors | | <u>68</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.

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

1.
N/A

2.
N/A

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

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

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

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

49 _____

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:

Katherine Foreman, PE

Project Assignment:

Project Manager

Name of Firm with which associated:

Royal Engineers and Consultants, L.L.C.

Years' experience with this Firm:

8

Education: Degree(s)/Year/Specialization:

BS / 2017 / Civil Engineering

Active registration: Year first registered/discipline:

PE 46031, LA Expires 3-31-2024
First Registered 2021

Other experience and qualifications relevant to the proposed Project:

Ms. Foreman has 8 years of experience in civil engineering design and construction management on project types including storm drainage systems, asphalt and concrete road design, sidewalks, potable water distribution systems, gravity sewer systems, flood control structures, commercial and residential site design, foundation design, and retaining walls. Her expertise includes familiarity with DOTD design manuals and specifications, ADA requirements, and AASHTO standards and the use of various software packages for H and H design and analysis such as HEC-HMS, HEC-RAS, DOTD HYDR programs, HY8, and Autodesk Storm and Sanitary Analysis. Ms. Foreman has significant experience preparing plans and specifications to LADOTD and local standards.

Other experience and qualifications relevant to the proposed Project (Cont.):

Polly Lane Extension – Lafayette, LA

Civil/Hydraulic Engineer responsible for performing engineering design services and construction management for the extension and connection of both existing dead-end streets of Polly Lane, inclusive of roadway reconstruction and widening to its existing section at Verot School Road. Ms. Foreman was responsible for performing engineering analyses for design of the storm drainage system, preparation of and revisions to construction documents, performing routine site visits, providing construction management/administration, and engineering support during construction, and overseeing resident inspection services throughout construction. As Project Manager, Ms. Foreman was responsible for invoicing, deliverables, scheduling, resourcing, and client coordination.

W. Metairie Avenue Over S. Suburban Canal Off System Bridge – Jefferson Parish, LA

Project Manager for DOTD Off-System Bridge (OSBR) replacement of an existing slab span bridge located in an urban area of Jefferson Parish. Ms. Foreman’s responsibilities include managing all aspects of design and client relations, overseeing plan production in accordance with the Off-System Highway Bridge Program Guidelines, leading the hydraulic analysis and design for all viable alternatives for the bridge replacement per the DOTD Hydraulics Manual, and coordinating survey efforts. Services provided by Royal include topographic and boundary survey, preliminary plan production, right-of-way agreements and sketches, and environmental services, including solicitation of views, categorical exclusion clearance, wetland studies, and other information needed for the Environmental Clearance process.

CNO Street Repair – Leontine, Valmont, Camp, and Chestnut Streets, New Orleans, LA

Ms Foreman was the Project Manager on team providing Engineering Design and Construction Administration Services for the City of New Orleans for roadway enhancement and full reconstruction of streets and utilities in a portion of the Uptown neighborhood of New Orleans, Louisiana. Royal provided main line drainage design, water line replacement design, and sewer line replacement design for portions of Camp Street, Leontine St., Valmont St., Coliseum St., and Chestnut St. in accordance with New Orleans Department of Public Works and New Orleans Sewerage and Water Board requirements. Ms. Foreman was responsible for performing drainage analyses to layout and size the proposed curb and gutter drainage system and coordinating preparation of AutoCAD drawings for Preliminary and Final Plans. Project Value: \$184,999

Iberia Parish Water Control Structures, Location: Iberia Parish, LA

Ms. Foreman coordinated the design of three flap-gated water control structures for the Iberia Parish Government, intended to improve gravity drainage of stormwater within the Parish. Project responsibilities include developing combined 1D/2D HEC-RAS models to analyze the existing capacities three main canal structures, incorporating culvert and flapgate structures into the HEC-RAS models to properly size the structures and analyze effects of the structures on the floodplain of each channel, and preparing detailed modeling reports.

Camellia - Settlers Trace Turn Lane, Lafayette, LA

Project Manager on team providing engineering services to the Lafayette Consolidated Government for the design of a dedicated right turn lane and second left turn lane at the intersection of Camellia Boulevard and Settlers Trace Boulevard. Services consist of preparing plans and specifications for construction of the project and performing engineering design and analyses for widening of the concrete roadway, evaluation of the existing drainage infrastructure, and identifying required modifications to the existing drainage system. Ms. Foreman was responsible for site layout, engineering calculations for evaluation of the storm drainage system, utilities coordination, and coordinating preparation of construction documents. Ms. Foreman is also responsible for invoicing, deliverables, scheduling, resourcing, and client coordination. Project Value: \$31,743

TEC Professional Services Questionnaire

| KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT: |
|--|
| Name & Title: |
| Robert Klare, PE |
| Project Assignment: |
| Deputy Project Manager |
| Name of Firm with which associated: |
| Royal Engineers and Consultants, L.L.C. |
| Years' experience with this Firm: |
| 1 |
| Education: Degree(s)/Year/Specialization: |
| Bachelor of Science Engineering/2013/Civil |
| Active registration: Year first registered/discipline: |
| PE 42991, LA, Expires 3-31-2025 First Registered 2018 |
| Other experience and qualifications relevant to the proposed Project: |
| Mr. Klare has extensive experience in sewer, drainage, road and sidewalk design for Louisiana projects. Technical skills include AutoCAD, EPA SWMM, and LADOTD Hydraulic Design Software. He has a Bachelor of Science in Civil Engineering from LSU and his related coursework included Intro to Surveying, Advanced Surveying, Hydrologic Design, Steel Design, Concrete Design, Deep Foundations. |

Other experience and qualifications relevant to the proposed Project (Cont.):

Jefferson Parish – Lemon / Lime Street Drainage

Mr. Klare assisted in design of the full reconstruction of Lemon and Lime streets from Veterans Highway to W. Esplanade Ave in Metairie, LA. The project included new sewer, water, and drainage design; full roadway vertical and horizontal design; striping and traffic control/detour plans.

Jefferson Parish – Crown Point Drainage and Levee

Mr. Klare worked as part of a design team for the creation of a new levee system in Crown Point, Jefferson Parish. The system included the improvements to the levee itself, redesign of protected side drainage, and design of new pump stations.

Jefferson Parish – Lafitte Drainage

Design for numerous roadside drainage improvements to the Town of Jean Lafitte and surrounding area.

City of New Orleans Street Repair - Leontine, Valmont, Coliseum, and Chestnut Streets

While at a previous firm, Mr. Klare worked with Royal to provide Engineering Design and Construction Administration Services for the City of New Orleans for roadway enhancement and full reconstruction of streets and utilities in a portion of the Uptown neighborhood of New Orleans, Louisiana. Royal's Engineering Design services included performing drainage analyses in accordance with City of New Orleans and DOTD requirements, determining proposed alignments and elevations of proposed sewer and water lines in compliance with required clearances with other utilities.

Subdivision Design – Multiple

Mr. Klare completed design on multiple new subdivisions in the Greater New Orleans Area. Notable projects include The Parks of Plaquemines (Plaquemines Parish), The Colony Phase 2 (Jefferson Parish), River Road Estates (St. Charles Parish), and Hidden Creek (St. Tammany Parish). Design included roadway (vertical and horizontal), sewer gravity, sewer force main, water, environmental permitting.

Construction Management and Estimating Services for Nashville Wharf A Substructure Repairs, Phase, Port of New Orleans

Project Engineer responsible for assisting the project manager with construction management services including cost estimating, constructability reviews, document control, field representation, and supporting Port NOLA with project close out for the repair of the substructure of the Nashville Wharf "A" facility located on the Mississippi River in New Orleans, LA. The existing wharf was constructed in 1960 and 1961 and is approximately 2,400 linear feet long and 214 feet wide and supported by approximately 371 steel piles.

Roadway Restoration for Bayou St. John, Fairgrounds, and Seventh Ward Group B Roads – New Orleans, LA

Project Engineer responsible for providing construction administration, and construction management for the City of New Orleans Department of Public Works. Mr. Klare works with the project manager to provide field management of the contractor and all construction activities, including conducting progress meetings, dealing with resident complaints, review and recommending for approval of monthly pay estimates, assisting in field adjustments, and using knowledge and experience in civil construction to ensure the project remains on schedule and budget.

TEC Professional Services Questionnaire

| KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT: |
|---|
| Name & Title: |
| Michael Pugh, PE, President |
| Project Assignment: |
| Principal |
| Name of Firm with which associated: |
| Royal Engineers and Consultants, L.L.C. |
| Years' experience with this Firm: |
| 18 |
| Education: Degree(s)/Year/Specialization: |
| BS / 1997 / Civil Engineering |
| Active registration: Year first registered/discipline: |
| PE30911, LA Expires 3-31-202 First Registered 2003 |
| Other experience and qualifications relevant to the proposed Project: |
| Mr. Pugh has over 28 years of experience in the design of roadway plans and the construction management of roadway, drainage, and sewer systems. He managed the St. Bernard Parish Roadway Restoration Program which has included the design, bidding, and construction management of 178 roadways with a construction value of nearly \$60M. He has served as the Principal Engineer on a variety of sewer and drainage projects and is a Registered Professional Engineer in eight states, including Louisiana. |

Other experience and qualifications relevant to the proposed Project (Cont.):

Citywide Construction Administration and Resident Inspection Services for Sewerage and Water Board of New Orleans and City of New Orleans DPW Cooperative Agreement – New Orleans, LA

Principal in Charge of team contracted to provide construction management and inspection services for annual maintenance contractors in five (5) maintenance zones, performing repair and restoration of pavement and associated infrastructure, including utility repair and replacement (water, sewer & drainage), sidewalks, ADA-Compliant Ramps, as well as replacement and repair to associated infrastructure., with a monthly total of 30-35 sites per maintenance zone. Responsibilities included team mobilization, including serving as principal engineer and assignment of senior project manager, lead project manager, scheduler, lead technician to coordination construction and inspection who is always on-site, lead and associated inspectors, project engineers, and associate technicians for document control and QA/QC of documentation.

City of New Orleans Roadway Restoration Program CM and Inspection – New Orleans, LA

Principal Engineer on the Royal team contracted by the Department of Public Works (DPW) to provide construction management and resident inspection services for the City of New Orleans Roadway Restoration Program CM and Inspection. This project includes the restoration of parish concrete and asphalt roadways and associated infrastructure (i.e., sidewalks, driveways, drainage, sewer, and water) that suffered damage during Hurricane Katrina. Construction services are being performed by multiple contractors under contract by DPW and overseen by Royal. Royal is providing all construction management, data management, reporting, platform deployment, quality assurance, administration, pay applications, resident inspection, and closeout services.

St. Bernard Parish Government Pre-Cast Con-Span Canal Crossings Engineering and CM Services – St. Bernard, LA

Principal Engineer on team contracted for civil engineering, design, surveying, geotechnical, field layout, bidding, construction administration, resident inspection, technical/engineering project close-out, construction management (CM) services. Responsibilities included project governance, subject matter expert for design input, and team mobilization for replacing 6 culverts with precast Con-Span structures and increasing the existing hydraulic capacity of the canal.

Bloski Avenue Extension – Belle Chasse, LA

Principal Engineer for this road construction project. Royal worked directly for the Naval Facilities Engineering Command Southeast as the prime contractor. This project consisted of constructing a 1,300-foot asphalt roadway and included the construction of stormwater drainage, sidewalks, concrete driveways, and solar street lighting. Through value engineering efforts, Mr. Pugh reduced NAVFAC's cost by \$800K and reduced the project schedule by 50 days. Royal was also responsible for the development and maintenance of the Stormwater Pollution Prevention Plan (SWPPP), Environmental Protection Plan (EPP), Health & Safety Plan (HASP), and Accident Prevention Plan (APP).

TEC Professional Services Questionnaire

| KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT: |
|--|
| Name & Title: |
| Carter O'Brien, PE |
| Project Assignment: |
| Civil Engineer |
| Name of Firm with which associated: |
| Royal Engineers and Consultants, L.L.C. |
| Years' experience with this Firm: |
| 5 |
| Education: Degree(s)/Year/Specialization: |
| BS / 2013 / Civil Engineering |
| Active registration: Year first registered/discipline: |
| PE43647. LA Expires 3-31-2024 First Registered 2019 |
| Other experience and qualifications relevant to the proposed Project: |
| Mr. O'Brien is an Engineer with over 10 years of heavy civil, roadway, drainage, and bridge construction experience. Mr. O'Brien has managed field operations, inspectors, project documentation, and closeout on numerous projects. He has completed road restoration and reconstruction projects for DOTD, FEMA, and other local agencies. He has extensively worked in asphalt paving, PCCP, catch basins, drainage, and sidewalk projects. Mr. O'Brien has significant experience preparing plans and specifications in accordance with DOTD and local standards |

Other experience and qualifications relevant to the proposed Project (Cont.):

FEMA Roadway Restoration Program | Location: New Orleans, LA

Project Manager on the Royal team contracted by the City of New Orleans Department of Public Works (DPW) to provide construction management services for the Federal Emergency Management Agency (FEMA) Roadway Restoration Program. This project includes restoration of parish concrete and asphalt roadways and associated infrastructure (i.e., sidewalks, driveways, drainage, sewer, and water) that suffered damage during Hurricane Katrina. Construction services are being performed by multiple contractors under contract by DPW and overseen by Royal. Royal is providing all construction management, data management, reporting, platform deployment, quality assurance, administration, pay applications, and closeout services. Mr. O'Brien performs quality control on the contractor's monthly invoices, management of resident inspectors, and project funding quality control.

South Shore Design Basin |Location: New Orleans, Louisiana

Project Engineer for the Royal team contracted to manage the design of the South Shore Area Sewer System restoration in Eastern New Orleans. The system is comprised of approximately 4500 acres and has a sewer system that contains approximately 2200 manholes and over 546,000 linear feet of gravity sewers. As Project Engineer, Mr. O'Brien evaluated defect coding, generated associated work order plots, and assisted with contract packaging. He also performed reviews of project specifications and drawings.

Emergency Catch Basin Cleaning and Repairs |Location: New Orleans, LA

Project Manager on the Royal team for the City of New Orleans Department of Public Works (DPW) Emergency Catch Basin Cleaning and Repair Program. Royal provided over 50 inspectors with supporting construction administration personnel for the cleaning of more than 15,000 catch basins in 120 calendar days within the City of New Orleans. Mr. O'Brien performed quality control on the contractor's monthly invoices, management of resident inspectors, and project funding quality control.

Nashville Wharf A Substructure Repairs, Phase 2| Location: New Orleans, LA

Project manager responsible for providing construction management services including cost estimating, constructability reviews, document control, field representation, and supporting Port NOLA with project close out for the repair of the substructure of the Nashville Wharf "A" facility located on the Mississippi River in New Orleans, LA. The existing wharf was constructed in 1960 and 1961 and is approximately 2,400 linear feet long and 214 feet wide and supported by approximately 5,371 steel piles. The steel pile type varies throughout the structure. The delivery method for the project is Construction Management at Risk (CMAR).

Jourdan Rd Wharf Terminal Substructure Repairs| Location: New Orleans, LA

Project Manager responsible for providing construction management services, including constructability reviews, document control, field representation, supporting Port NOLA with project close out for the repair of the substructure of the wharf at the Jourdan Road Terminal on the Gulf Intracoastal Waterway in New Orleans. The existing wharf is more than 40 years old, measures 1,400 linear feet long by 265 feet wide consisting of pre-cast and cast-in-place deck elements supported by 2,000 open-ended steel pipe piles which are 14" and 16" in diameter with a 3/8" wall thickness and contain a fibrous jacket on the top 6 to 8 feet that is known to contain asbestos. The delivery method for the project is Construction Management at Risk (CMAR).

East Hardy Street Bridge Replacement |Location: Hattiesburg, MS

Engineer on the Royal team contracted by SDW to provide Engineering services for bridge design, layout, specifications, and probable cost. Mr. O'Brien assists in bridge layout, cost estimation, bid package development, and structural design team and drafter coordination.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**Name & Title:**

Cassidy Melancon, EI

Project Assignment:

Engineer Intern (Civil)

Name of Firm with which associated:

Royal Engineers and Consultants, L.L.C.

Years' experience with this Firm:

3

Education: Degree(s)/Year/Specialization:

BS /2020/Civil Engineering

Active registration: Year first registered/discipline:Engineer Intern LA 0034626 Expires 03-31 -2025
First Registered 2020**Other experience and qualifications relevant to the proposed Project:**

Ms. Melancon is an engineer intern with a bachelor's degree in civil engineering. She has three years' experience in the industry which includes providing assistance with engineering and project management services. Her responsibilities in engineering range from various design tasks regarding drainage, roadway, and structural analyses to drafting and maintaining project files. Her project management assistance included tasks such as reviewing inspector observations and quantities.

Other experience and qualifications relevant to the proposed Project (Cont.):

SLECA Road Repairs – Ashland Road and Detiveaux Road, Terrebonne Parish, LA

For the Ashland Road section, Ms. Melancon was an Engineer Intern responsible for plan development, creating a topographic survey surface using point elevation data, and performing a Hydrologic Modification Impact Analysis (HMIA) to support the Coastal Use Permit process. Royal provided engineering design, permitting, and construction administration and management services for two roadways providing access to SLECA's electrical distribution infrastructure in Houma, LA: Detiveaux Rd, a 1.5-mile long aggregate roadway providing access to the Bayou Dularge Main Feed, and Ashland Rd, a 2.3 mile long aggregate roadway providing access to the Ashland Substation.

W. Metairie Avenue Over S. Suburban Canal Off System Bridge – Jefferson Parish, LA

Ms. Melancon is an Engineering Intern responsible for site layout, roadway vertical curve design, guardrail layout, and supporting plan production for this DOTD Off-System Bridge (OSBR) replacement of an existing slab span bridge located in an urban area of Jefferson Parish. Services provided by Royal include topographic and boundary survey, preliminary plan production, right-of-way agreements and sketches, and environmental services, including solicitation of views, categorical exclusion clearance, wetland studies, and other information needed for the Environmental Clearance process.

NAVFAC P526U P529U, VCC and Inspection Facility AE, Belle Chasse, LA

Engineer Intern responsible for civil design of site grading, roadway vertical alignment, and stormwater analysis and design in accordance with UFC, AASHTO, DOTD, and Military design standards. Contracted services include architectural, structural, and civil design services for a design-build project to construct a new entry control facility including a Visitor Control Center, Commercial Vehicle Inspection station, commercial roadway, and associated site infrastructure for the Naval Air Station Joint Reserve Base (NAS JRB) in Belle Chasse, LA. Additional civil site design features include low impact development (LID) stormwater infrastructure, signage, water and sewer utilities, and pavements.

Odyssey House Parking Lot Design, New Orleans, LA

Engineer Intern responsible for development of design plans for an approximately 7854 square foot lot for the construction of an accessory parking lot including implementation of permeable pavement system to comply with City of New Orleans stormwater ordinances. Design tasks included preparing site grading plans, concrete joint layout, and performing pre- and post- development drainage calculations. Construction features include approximately 3552.8 SF of concrete paving, 2298.7 SF of permeable pavers, 2298.7 of 24" thick permeable paving base course, 239.9 LF of barrier curbing, 173.3 LF of perforated underdrain pipes, 105.7 LF of PVC drainage pipe, 2 drain inlets, and pavement striping to delineate parking spaces.

SBPG East Bank Sediment Transport Corridor – St Bernard Parish, LA/Plaquemines Parish, LA

Engineer Intern responsible for structural design of box culverts and retaining walls, guardrail design, temporary traffic control plans, and preparing quantity takes and cost estimates for the design of roadway regrading and reconstruction to facilitate installation of a permanent pipeline casing adjacent to the Mississippi River Levee. The permanent pipeline casing is required as part of a proposed corridor through Plaquemines and St. Bernard Parishes that would deliver dredged sediment from point bars within the Mississippi River to marsh creation areas within the Breton Sound.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**Name & Title:**

Ryan Hebert, PE

Project Assignment:

Civil/Environmental Engineer

Name of Firm with which associated:

Royal Engineers and Consultants, L.L.C.

Years' experience with this Firm:

3

Education: Degree(s)/Year/Specialization:

Bachelor of Science | 2017 | Environmental Engineering

Active registration: Year first registered/discipline:Professional Engineer, LA, PE 0046577 First
Registered: 2022**Other experience and qualifications relevant to the proposed Project:**

Mr. Hebert is a professional engineer with a degree in Environmental Engineering with experience in construction operations for street, sewer, and water systems repair. Specific project experience includes catch basin cleaning, asphalt and pavement patching, ADA project elements, and water and sewer line repairs. For Royal Projects, Mr. Hebert provides inspection services and project and construction management support. This includes assisting with project scheduling and coordination, quality control, and ensuring retention of administrative records.

Other experience and qualifications relevant to the proposed Project (Cont.):

FEMA Roadway Restoration Program: New Orleans, LA

Assistant Project Manager responsible for construction administration and management services for pavement restoration efforts undertaken by the City of New Orleans Department of Public Works (DPW) as part of the CNO Capital Improvement Program. DPW has two construction contractors (GC's) under contract to perform routine maintenance under a requirements-based contract. These contractors are dispatched on a work order-based system to repair and restore pavement and associated infrastructure. These projects include pavement restoration, drainage repair, and replacement, sidewalks, ADA-Compliant Ramps, and replacement and repair to associated infrastructure.

City-Wide Construction Administration and Resident Inspection Services: New Orleans, LA

Associate Inspector for the Royal team contracted by the City of New Orleans Department of Public Works to provide construction management and resident inspection services for roadway restorations of water and sewer service cuts throughout the City. The program consisted of assessing over 30,000, cleaning over 15,000 and repairing over 3,000 catch basins. Also, under the City's contract, Mr. Hebert served as associate inspector for eight full roadway rehabilitations including base excavation and installation, asphaltic concrete mill and overlay, and concrete pavement installation. He regularly assists in project scheduling and coordination and is responsible for maintaining quality control and completing administrative records.

Emergency Catch Basin Cleaning and Repairs, City of New Orleans

Associate Inspector for the City's catch basin cleaning and repairs project. Royal provided over 50 inspectors with supporting construction administration personnel for the cleaning of more than 15,000 catch basins in 120 calendar days within the City of New Orleans. The program also included inspection and management for over 3,000 catch basin repairs. Mr. Hebert was responsible for quality assurance and control of all field information captured by resident inspectors, including daily review of quantifiable pay items and photos of the work to be quantified.

New Orleans Sewage and Water Board Sewer Repairs

Project Role: Associate Inspector and Assistant Project Manager

The Royal Team was contracted by the City of New Orleans Sewerage and Water Board to provide inspection for water and sewer line repairs. Mr. Hebert was an associate inspector and assistant project manager who was responsible for quality assurance and control and work order development.

Interim Paving Program: New Orleans, LA

Assistant Project Manager and Lead Inspector for team providing part-time inspection for temporary roadway restorations of water and sewer cuts throughout the city. The program consisted of identifying over 1,000 service cuts and nearly 800 completed repairs in a matter of 6 months. Mr. Hebert was the lead inspector and assistant Project Manager and was responsible for maintaining quality assurance and control of all field information captured by inspectors and oversaw work order development.

TEC Professional Services Questionnaire

| KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT: |
|--|
| Name & Title: |
| Laudun Landry, PE |
| Project Assignment: |
| Civil/Structural Engineer |
| Name of Firm with which associated: |
| Royal Engineers and Consultants, L.L.C. |
| Years' experience with this Firm: |
| 2 |
| Education: Degree(s)/Year/Specialization: |
| BS / 2017 / Civil Engineering |
| Active registration: Year first registered/discipline: |
| PE45878, LA, Expires 3-31-2024 First Registered 2021 |
| Other experience and qualifications relevant to the proposed Project: |
| Mr. Landry was previously employed with the DOTD, where he was involved in the engineering design of bridge structures and reviewing engineering plans and specifications on consultant projects. His experience includes acting as Engineer of Record, Bridge Task Manager, and Design Engineer on various projects |

Other experience and qualifications relevant to the proposed Project (Cont.):

W. Metairie Avenue Over S. Suburban Canal Off System Bridge – Jefferson Parish, LA

Structural Engineer responsible for design of Box Culverts, Headwalls, and Wingwalls to replace the existing slab span bridge for this DOTD Off-System Bridge (OSBR) replacement of an existing slab span bridge located in an urban area of Jefferson Parish. Services provided by Royal include topographic and boundary survey, preliminary plan production, right-of-way agreements and sketches, and environmental services, including solicitation of views, categorical exclusion clearance, wetland studies, and other information needed for the Environmental Clearance process.

LA 302: Bayou Barataria MB Replacement – Jefferson Parish, LA

Civil/Structural Design Engineer. This project included the engineering design of a mechanical bridge to replace the existing swing span bridge. Responsible for the structural design and detailing of the replacement bridge's operator house.

Cameron-Creole Maintenance Project (CS-04A) – Cameron Parish, LA

Civil/Structural design engineer on Royal project team responsible for all engineering, design, surveying, permitting, and construction administration and oversight services necessary for the maintenance/repair work to the Cameron-Creole Maintenance Project (CS-04A) damaged by Hurricane Laura. Features include: (1) Mangrove Bayou: Water Control Structure and Interior Canal Plug, (2) Grand Bayou: Water Control Structure, Interior Canal Plug, and Levee Breach, (3) Lambert Bayou: Water Control Structure and Levee Breach, and (4) No Name Bayou: Water Control Structure and Levee Breach. General repair activities are inclusive of excavation and dredging of siltation and debris, placement of hauled in fill materials and rip rap, installation of sheet pile wall structures, and mechanical repairs to existing structures. Mr. Landry is performing structural engineering services for Final Design and serves on the Red Team Review panel.

Dorcheat Bayou Bridge Replacements – Webster Parish, LA

Civil/Bridge Engineer of Record. This project included engineering to design four replacement bridges on LA 160. The bridges were simple slab span bridges. The project scope included coordination with the road design team to bring the route up to current code, including guard rail design, and alignment adjustments.

TEC Professional Services Questionnaire

| KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT: |
|---|
| Name & Title: |
| William Fontenot, PE |
| Project Assignment: |
| Structural Engineer/Quality Control |
| Name of Firm with which associated: |
| Royal Engineers and Consultants, L.L.C. |
| Years' experience with this Firm: |
| 3 |
| Education: Degree(s)/Year/Specialization: |
| BS / 2012 / Civil Engineering |
| Active registration: Year first registered/discipline: |
| PE41036, LA, 3-31-2024 First Registered 2016 |
| Other experience and qualifications relevant to the proposed Project: |
| Mr. Fontenot has more than 10 years of experience in civil and structural engineering, construction consulting, and structural inspection and repair. He has performed on-site inspection of structural deficiencies of statewide projects and engineered safe, economic approaches to specific construction problems related to various heavy construction projects including flood control and drainage structures. |

Other experience and qualifications relevant to the proposed Project (Cont.):

SBPG East Bank Sediment Transport Corridor – Hwy 15 Road Reconstruction and Canal Crossings – Plaquemines and St. Bernard Parishes, LA

Civil/Structural Engineer responsible for designing canal crossing structures and sheetpile bulkhead systems, overseeing structural design of box culverts and retaining walls, and performing design reviews for the design of roadway regrading and reconstruction to facilitate installation of a permanent pipeline casing adjacent to the Mississippi River Levee. The permanent pipeline casing is required as part of a proposed corridor through Plaquemines and St. Bernard Parishes that would deliver dredged sediment from point bars within the Mississippi River to marsh creation areas within the Breton Sound.

Camellia - Settlers Trace Turning Lane – Lafayette, LA

Civil/Structural Engineer providing engineering services during construction for Lafayette Consolidated Government. Project features include a dedicated right turn lane and second left turn lane at the intersection of Camellia Boulevard and Settlers Trace Boulevard. Services consist of preparing plans and specifications for construction of the project and performing engineering design and analyses for widening of the concrete roadway, evaluation of the existing drainage infrastructure, and identifying required modifications to the existing drainage system. Additional project features include road striping, sidewalk relocation, and street lighting. Mr. Fontenot served as structural subject matter expert, completing re-design of the catch basin to accommodate changing project needs.

Luling Bridge Deck Overlay and Repairs, St. Charles Parish, LA

Mr. Fontenot revised original traffic control plans and diversion crossovers to expedite construction sequencing and feasibility. Updated drainage plan to match revised traffic control. Tasks Performed: geometric Design of Diversion Crossovers, hydraulic analysis of watershed area for new and existing drainage design, traffic control layout and phasing plans throughout the project, assisted construction efforts in the field using survey data and design plans, design of debris screen for sandblasting operations near adjacent traffic, quality control of final plans, quantification of cut/fill and roadway elements for cost estimates. Codes Used: AASHTO Roadside Design Guide, AISC Steel Construction Manual, ACI 318-11 Building Code Requirements for Structural Concrete, MUTCD, LADOTD Traffic Control Standard Plans, AASHTO Guide Design Specifications for Bridge Temporary Works, LADOTD Hydraulics Manual.

Iberia Parish Government Water Control Structures, Iberia Parish, LA

Mr. Fontenot is the structural engineer, for this project, which of regional flood protection for Iberia Parish associated with multiple drainage canals, which are tidally influenced. Hydraulic/Hydrologic modeling efforts are ongoing to determine flow characteristics within the channels, so that flood control gates can be designed to prevent upstream flooding. The gates must take into account head losses, so that still water elevations within the channels do not increase. Six structures on six main canals which are experiencing flood and drainage issues within Iberia Parish are being designed.

South Louisiana Electric Cooperative Association (SLECA) Hurricane Ida Recovery

Senior Structural Engineer on the team providing ongoing support with management activities including attendance, facilitation, and recording of client meetings; establishment and maintenance of electronic document management system; oversight and assistance with damage assessments; assistance with procurement activities; review and assistance in processing requests for reimbursement; progress and financial reporting to SLECA and GOHSEP; functioning as liaison with local, state, and federal representatives; and working closely with GOHSEP and FEMA on the development of FEMA Project Worksheets (PW).

TEC Professional Services Questionnaire

| KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT: |
|---|
| Name & Title: |
| Kenneth Odinet, III EI |
| Project Assignment: |
| Engineer Intern (Civil) |
| Name of Firm with which associated: |
| Royal Engineering and Consulting, L.L.C. |
| Years' experience with this Firm: |
| 2 |
| Education: Degree(s)/Year/Specialization: |
| B.S., 2022, Civil Engineering |
| Active registration: Year first registered/discipline: |
| LA E.I. 0035301 First Registered 2022 |
| Other experience and qualifications relevant to the proposed Project: |
| <p>Mr. Odinet is an engineer intern rapidly gaining experience in many of Royal's major projects, which have aspects of drainage and sewer engineering, as well as roadway and levee construction. He is experienced with environmental assessments and the development and review of structural engineering calculations and drawings.</p> |

Other experience and qualifications relevant to the proposed Project (Cont.):

East Bank Sediment Transport Corridor, St. Bernard and Plaquemines, Louisiana

Engineer in Training on the team responsible for designing a corridor that will deliver dredged sediment from point bars in the Mississippi River to marsh creation areas. Mr. Odinet surveyed levee and road transects, calculated scour of a culvert and helped track all of the boats that used the anchorage areas in the Mississippi River to use as evidence in justifying the removal of an anchorage area for use as a borrow area for the pipeline.

South Louisiana Electric Cooperative Association (SLECA) Hurricane Ida Recovery

Engineer in Training on the team engaged by SLECA following Hurricane Ida that is responsible for performing damage assessments on approximately 15 different properties throughout the affected area. Mr. Odinet surveyed road transects in support of the development of engineering drawings for two stone-surface roadways that are being re-built as part of the recovery efforts.

Jefferson Davis Electric Cooperative Hurricane Recovery FEMA Environmental and Historic Preservation (EHP) for 69KV Transmission

Engineer in Training on the team responsible for FEMA EHP-related activities associated with Jefferson Davis Electric Cooperative's (JDEC) hurricane Laura recovery efforts, including ensuring all response, recovery, and resiliency improvements comply with the National Environmental Policy Act and State and local laws. JDEC's transmission and distribution infrastructure was devastated and requires >\$300M in planning, design, and construction to be repaired. Mr. Odinet co-authored a Programmatic Environmental Assessment, writing sections related to noise and traffic. He also performed analyses on river crossings across the state to estimate the required clearance height for transmission lines for boats.

Rebuild Florida Housing Repair & Replacement Program, Statewide, FL

Engineer-In-Training involved with the Rehabilitation Services and Program Administration and Management Services for Royal's work on the DEO Housing Repair and Replacement Program (HRRP), which provides housing assistance to those affected by Hurricane Irma in September 2017. Mr. Odinet assists in the coordination and execution of structural assessments of homes damaged by extreme winds and flooding of the hurricane. Mr. Odinet has inspected homes of lumber framing, concrete masonry unit (CMU), and reinforced concrete construction and foundations of pier-and-beam and slab-on-grade type. For each inspection, Mr. Odinet assists with the development and review of a detailed structural assessment report which addresses the causes of the structural deficiencies discovered and provides a comprehensive solution and construction cost estimate to bring the damaged home back to a habitable state of repair. Additionally, Mr. Odinet is involved with the development and review of structural engineering calculations and drawings to adequately design structural systems of each home as necessary, including foundation, floor, wall, and roof elements. As necessary, the structural design of the elements of each home complied with codes, standards, & guidelines of, but not limited to, the 2017 Florida Residential Code (FRC), National Design Specifications for Wood Construction and the Wood Frame Construction Manual (WFCM), American Society of Civil Engineers (ASCE), and American Concrete Institute (ACI).

TEC Professional Services Questionnaire

| KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT: |
|---|
| Name & Title: |
| Zachary Romaine, PE Staff Engineer |
| Project Assignment: |
| Environmental Engineer |
| Name of Firm with which associated: |
| Royal Engineers and Consultants, L.L.C. |
| Years' experience with this Firm: |
| 6 |
| Education: Degree(s)/Year/Specialization: |
| MS / 2016 / Coastal and Ecological Engineering BS / 2014 / Environmental Engineering |
| Active registration: Year first registered/discipline: |
| Environmental Engineering / State of Louisiana / P.E. License No. 0045158 First Issuance Date: 12/10/2020 |
| Other experience and qualifications relevant to the proposed Project: |
| Mr. Romaine is a professional engineer with six years of experience in civil, environmental, and coastal engineering and construction, primarily in Louisiana. His education includes a B.S. in Environmental Engineering and an M.S. in Coastal and Ecological Engineering. Mr. Romaine's background and studies included geotechnical engineering, hydrology, civil and environmental engineering, and coastal engineering. Mr. Romaine's project experience includes geotechnical analyses; open channel hydraulics; and design and construction of coastal structures, with specializations in marsh creation and shoreline protection. As a member of the Royal Team, Mr. Romaine serves on Royal's project technical and design teams and has been responsible for permitting activities, engineering design, project management, and development and compilation of project plans and specifications. His GIS/CADD expertise includes the use of various software packages for the development of graphical representations of data collected, including QGIS Desktop and AutoCAD Civil 3D |

Other experience and qualifications relevant to the proposed Project (Cont.):

Iberia Parish Water Control Structures, Iberia Parish, LA

Lead Engineer and Project Manager. Mr. Romaine has been responsible for the direction of topographic, bathymetric, and geotechnical surveys; land use research; the delineation of watersheds and hydraulic modeling via HEC-HMS and HEC-RAS 1D/2D; preparing preliminary and final designs and probable opinions of construction cost of six water control structures projects located throughout Iberia Parish and along the proposed levee alignment identified in the 2016 Iberia Parish Levee, Hurricane, and Conservation District Coastal Protection Master Plan. Permitting efforts with both USACE and the Office of Coastal Management. Construction of the first water control structure began in Q3 2021.

Dredged Material Management Planning, Port Fourchon, Lafourche Parish, LA

Dredge Engineer. Mr. Romaine assisted with the development of a dredged material management plan (DMMP) for activities related to the dredging of a ship berth and turning basin for a proposed liquified natural gas (LNG) processing facility. As part of this project, Mr. Romaine assisted with development of dredged material quantities, analysis of geotechnical borings, calculation of tidal datums, calculations of fill quantities, and the development of alternative beneficial use sites. Mr. Romaine also served as the technical lead regarding analysis of future maintenance requirements within the proposed ship berth, which included research of existing shoaling rates in the local area and prediction of shoaling rates in the proposed ship berth using Delft3D.

Lake Lery Marsh Creation and Rim Restoration- Phase III Independent Technical Review, St. Bernard Parish, LA

(05/2018-11/2020) Project Manager. Royal is providing St. Bernard Parish Government (SBPG) with Technical review services for the Lake Lery Marsh Creation and Rim Restoration – Phase III project. Scope of services overseen by Mr. Romaine have included: development of scope of services to assist SBPG in soliciting proposals for design and engineering of the project; coordination with the client and engineering team; and review of deliverables including data collection, preliminary and final design, plans, specifications, permits, and the final bid package.

East Bank Sediment Transport Corridor, St. Bernard and Plaquemines Parishes, LA

Project Engineer. Mr. Romaine assisted with the design of a corridor through Plaquemines and St. Bernard Parishes that would deliver dredged sediment from point bars within the Mississippi River to marsh creation areas within the Breton Sound and the Pontchartrain Basin. As part of this project, Mr. Romaine assisted with the development of criteria by which the alternative corridor alignments and configurations would be vetted as viable options, utilization of these developed criteria to evaluate the optimum project layout, and with generating preliminary cost estimates of each sediment delivery method.

Rabbit Island Restoration Project (CS-80), Cameron Parish, LA

Engineering Support. This project aimed to restore Rabbit Island via hydraulic dredging to restore and enhance nesting bird habitat. Responsibilities included the initial gathering and review of all available coastal process data pertinent to the project design, such as local water level information, wind information, topographic surveys, geotechnical information, and available sediment data. Mr. Romaine assisted with an alternatives evaluation; initial cost estimate for various project alternatives; design of the fill area, access routes, and borrow areas; preparation of preliminary and final design reports; and construction management services.

Replacement of Wave Attenuators, Cypremort Point, LA, St. Mary Parish, LA

Project Manager / Project Engineer. PM and Engineering services during construction of a shoreline protection structure at the Cypremort Point State Park beach. Engineering tasks completed during design included: the sizing and construction of a breakwater system; utilization of an encapsulated lightweight aggregate core; analysis of geotechnical borings and proposed structure settlements; preparation of cost estimates via proposed unit fill volumes and recent bid data; and generation of CADD plans and specifications. In addition, he has been responsible for all construction management tasks as well as coordination with contractors and the owner.

TEC Professional Services Questionnaire

| KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT: |
|--|
| Name & Title: |
| T. Mitchell Andrus, PH.D., PE Senior Vice President |
| Project Assignment: |
| Subject Matter Expert |
| Name of Firm with which associated: |
| Royal Engineers and Consultants, L.L.C. |
| Years' experience with this Firm: |
| 16 |
| Education: Degree(s)/Year/Specialization: |
| Louisiana State University / MS / 2007 / Oceanography & Coastal Sciences Louisiana State University / BS / 1997 / Civil Engineering, Minor-Env. Eng. Delft3D Basic Course: Hydrodynamics, Sediment Transport, and Bed Dynamics, Deltares, Delft, Netherlands, October 2014 |
| Active registration: Year first registered/discipline: |
| PE30246, Civil Engineering First Registered 07/02/2002 |
| Other experience and qualifications relevant to the proposed Project: |
| <p>During his 16 years with Royal, Dr. Andrus has served as the principal engineer and Subject Matter Expert on projects that have included design services for site layout, road design, grading and shaping for drainage, including retention pond design, wastewater treatment plant design, and layout/sizing of utilities. He was also the Principal Hydraulic Engineer responsible for overseeing the design of a proposed drainage channel and has experience with roads, housing, marsh creation, flood control structures, and reviews of HEC-HMS hydrologic and HEC-RAS hydraulic numerical computer models.</p> |

Other experience and qualifications relevant to the proposed Project (Cont.):

Polly Lane Extension

Principal Engineer providing oversight of design services for the extension and connection of both existing dead-end streets of Polly Lane, inclusive of roadway reconstruction and widening to its existing section to Verot School Road. The approximate length of the new roadway is 1,080 linear feet and the length of improvements to existing roadway is 930 linear feet. The roadway extension|connection will consist of a 2-lane asphaltic concrete roadway with open ditched (with possible subsurface drainage in some areas), a concrete box culvert over Issac Verot Coulee Lateral 7, sidewalks, and street lighting.

Lake Charles Housing Development

Lead Civil Engineer on team developing a 639 home subdivision in Calcasieu Parish, near Lake Charles, LA. This includes using collected information to perform design services for site layout, road design, grading and shaping for drainage, including retention pond design, wastewater treatment plant design and layout/sizing of all utilities. Reviewed preliminary and final design drawings, specifications, permits, and technical memoranda for civil engineering and site development.

Camp Lejeune Hydraulic Study

Lead Civil Engineer for a hydraulic study of two (2) treated water distribution systems at Camp Lejeune. Royal was responsible for performance of the hydraulic analysis of the two (2) main treated water distribution systems at Camp Lejeune and for providing near term recommendations for water sharing opportunities with COJ and ONWASA in an effort to manage and sustain groundwater resources within the Onslow County watershed.

Choctaw Point Drainage Canal, Design and Construction Services

Principal Hydraulic Engineer responsible for overseeing the design a proposed drainage channel to be constructed by the Alabama State Port Authority at the Garrows Bend Intermodal Container Transfer Facility (ICTF) in Mobile, Alabama. Mr. Andrus supervised the preparation of bid drawings, specifications, and construction cost estimate, as well as the hydraulic modeling required to assess the channel's performance during the 50- and 100-year flow events. The hydraulic modeling effort included a detailed assessment of the design armor stability and scour potential during 50- and 100-year flows, according to FHWA and USACE guidelines. Two-dimensional hydraulic modeling was used to evaluate design shear stresses along the channel bed and side slopes and to confirm all design components of the drainage channel.

St. John the Baptist Parish Canal Clearing

Principal-in-Charge, Mr. Andrus served as technical advisor and participated in client coordination and negotiations Due to storm debris causing drainage issues. Royal was contracted to prepare and secure a Coastal Use Permit (CUP) and perform design engineering services for the clearing and snagging of the debris in approximately 21 canals located throughout St. John the Baptist Parish. Mr. Andrus provided guidance during project scoping and costing and he participates in all design review milestones.

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

PROJECT NO. 1

| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
|---|---|---|
| <p>City of New Orleans Street Repair - Leontine, Valmont, Coliseum, and Chestnut Streets.</p> <p>Owner: Stuart Consulting Group, Inc. Chris Blazo 504.888.5733 Email Address chrisb@stuartconsultinggroup.com</p> | <p>Royal was subcontracted by Stuart Consulting Group, Inc. (SCG) to provide Engineering Design and Construction Administration Services for the City of New Orleans for roadway enhancement and full reconstruction of streets and utilities in a portion of the Uptown neighborhood of New Orleans, Louisiana.</p> <p>Royal's Engineering Design services included performing drainage analyses in accordance with City of New Orleans and DOTD requirements, determining proposed alignments and elevations of proposed sewer and water lines in compliance with required clearances with other utilities, preparing AutoCAD drawings for Preliminary and Final Plans, providing quantity takeoffs for cost estimating, and attendance at design kickoff meeting, progress meetings, and Plan-in-Hand meeting.</p> | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| October 2020 | \$185,000 | \$184,000 |

PROJECT NO. 2

| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
|--|---|---|
| <p>DPW Bond-Funded Projects New Orleans, Louisiana City of New Orleans Department of Public Works</p> <p>Josh Hartley, P.E. 504.658.8000 jwhartley@nola.gov 1300 Perdido St # 6W03 New Orleans, LA 70112</p> | <p>Royal was contracted by the City of New Orleans Department of Public Works (DPW) to provide Construction Management and Resident Inspection Services for the bond-funded roadway program which includes associated subsurface drainage, sewerage, and water repairs. Construction services were performed by multiple contractors under contract by DPW and overseen by Royal.</p> | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| February 2022 | \$49M | \$1.7M |

| PROJECT NO. 3 | | |
|---|---|---|
| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility | |
| City of New Orleans - Department of Public Works (DPW) Brian Fontaine 1300 Perdido Street – Suite 6W03 New Orleans Louisiana 70112 bfontaine@nola.gov | The City of New Orleans Department of Public Works (DPW) implements various construction projects throughout the City during the course of a given year. These projects range in size and duration and can be categorized as roadway, drainage and associated infrastructure repair and replacement. Currently DPW is implementing a large-scale roadway, water, sewer and drainage program funded primarily by the Federal Emergency Management Agency (FEMA) & other agencies (FEMA/JIRR Program) to restore and replace infrastructure damaged during Hurricane Katrina. Royal provides all construction management, quality assurance and project control services. | |
| Completion Date (Actual or estimated) | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| 2022 | \$500M | \$3M |

| PROJECT NO. 4 | | |
|--|--|---|
| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
| Polly Lane Extension, Lafayette Parish, LA Lafayette Consolidated Government (LCG) Alison Lognion 705 W University Ave, Lafayette, LA 70506 337.291.8522, alognion@lafayettela.gov | Royal provided professional engineering design services for the extension of Polly Lane. The approximate length of the new roadway is 1,080 linear feet and the length of improvements to existing roadway is 930 linear feet. The roadway extension/connection consists of a 2-lane asphaltic concrete roadway, concrete sidewalks, subsurface drainage, traffic circle, concrete box culvert in Issac Verot Coulee Lateral 7, articulating block matting for scour protection, ADA ramps, and street lighting. The project also involved installation of a new 8" water main and water and sewer service line adjustments and relocations. | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| November 2021 | \$351,300 | \$117,300 |

| PROJECT NO. 5 | | |
|---|--|---|
| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
| DOTD OSBR West Metairie Ave Bridge, Jefferson Parish Barbara Ostuno, PE PO Box 94245, Baton Rouge, LA, 70804, (225) 379-1047 , Barbara.ostuno@la.gov | Royal Engineers and Consultants, LLC is providing engineering and related services required to develop plans to replace an existing slab span bridge at West Metairie Avenue over the South Suburban Canal in Jefferson Parish, which is off the State Highway System. Royal is managing all aspects of design and client relations, overseeing plan production in accordance with the Off-System Highway Bridge Program Guidelines, leading the hydraulic analysis and design for all viable alternatives for the bridge replacement in accordance with the DOTD Hydraulics Manual, and coordinating survey efforts. Other services provided by Royal include preliminary plan production, and environmental services including solicitation of views, categorical exclusion clearance, wetland studies, and other information needed for the Environmental Clearance process. | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| 2024 | TBD | \$77, 240 |

| PROJECT NO. 6 | | |
|--|---|---|
| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
| Iberia Parish Water Control Structures at Peebles Coulee, Roderie Canal, Jefferson Canal, Little Valley Bayou, Rutten Rill Road Canal, and George Lancon Canal. Iberia Parish Government Michael Broussard 337.492.5412 mbroussard@iberiagov.net | Iberia Parish Government contracted Royal to design water control structures near the downstream terminations of these canals to combat high tide events and, by doing so, re-introducing rainfall runoff storage capacity within the canals. These structures were previously identified in the 2016 Iberia Parish Levee, Hurricane, and Conservation District Coastal Protection Master Plan as part of a larger levee system. The tasks assigned to Royal, acting as the prime designer, included: assessment of the site via in-field data collection; hydrologic and hydraulic modeling of the watershed area and drainage system; selection, design, and permitting the water control structures; construction management; and general project management. | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| 2025 | \$13,436,500 | \$13,436,500 |

| PROJECT NO. 7 | | |
|--|---|---|
| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
| <p>City of New Orleans Filmore South Group B New Orleans Department of Public Works</p> <p>Josh Hartley, P.E. 504.658.8000 jwhartley@nola.gov 1300 Perdido St # 6W03 New Orleans, LA 70112</p> | <p>The City of New Orleans Department of Public Works (DPW) implements various construction projects throughout the City during the course of a given year. These projects range in size and duration and can be categorized as roadway, drainage and associated infrastructure repair and replacement. Currently DPW is implementing a large-scale roadway, water, sewer and drainage program funded primarily by the Federal Emergency Management Agency (FEMA) & other agencies (FEMA/JIRR Program) to restore and replace infrastructure damaged during Hurricane Katrina. Royal provides construction management, quality assurance and project control services. Our approach can be scaled up or down depending on the amount of construction.</p> | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| 2022 | \$72,793 | \$72,793 |

| PROJECT NO. 8 | | |
|---|---|---|
| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
| <p>East Jefferson Levee District (EJLD) – Safehouse and Consolidated Facilities.</p> <p>East Jefferson Levee District Sizeler Thompson Brown Architects Thomas Brown (504) 523-6472 kdaigle@sizeler.com</p> | <p>Royal Engineers and Consultants (Royal) was contracted by Sizeler Thompson Brown Architects to provide Civil and Structural Design Engineering Consulting services for the East Jefferson Levee District (EJLD) Safehouse and Consolidated Facilities. This project included 3 office buildings, a maintenance facility, car wash station, gas station, 3 parking lots, and new site utilities. Royal provided civil and structural construction drawings and construction administration for concrete, steel, and CMU block structures. The civil design included sewer, water, gas utilities storm drain infrastructure grading and paving plans and a storm water management plan consisting of two large retention ponds. Services included schematic design, design development, construction documents, bidding and negotiations, and construction administration.</p> | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| 2018 | \$225,000 | \$225,000 |

| PROJECT NO. 9 | | |
|--|--|---|
| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
| City of New Orleans Emergency Catch Basin Cleaning and Repair Program CNO Dep. of Public works Josh Hartley, P.E. – DPW Senior Engineer / jwhartley@nola.gov / 1300 Perdido Street – Suite 6W03 New Orleans Louisiana 70112 / 504-658-8042 | Royal Engineers & Consultants was hired by the City of New Orleans (CNO) Department of Public Works (DPW) to perform construction administration and management services for Emergency Catch Basin Cleaning and Repairs following the citywide flooding associated with the storm/rain event on August 5, 2017. The CNO storm drainage system contains over 65,000 catch basins and over 1,000,000 linear feet of storm drain laterals varying in type and size. The system needed significant cleaning and repairs and the urgency for these services was elevated due to the flooding event that took place in August of 2017. DPW identified funding and resources to implement emergency cleaning and repairs for approximately 15,000 catch basins and 225,000 linear feet of adjacent laterals | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| July 2018 | \$4,282,978 | \$4,282,978 |

| PROJECT NO. 10 | | |
|--|---|---|
| Project Name, Location and Owner's contact information: | Nature of Firm's Responsibility: | |
| Harvey Boulevard Drainage Analysis, Harvey, LA Scandurro & Layrisson. L.L.C. / Timothy Scandurro / tim@scanlayr.com | The Harvey Boulevard Extension Project created conditions that caused drainage and access issues. Royal conducted a site investigation, data analysis and performed engineering services to determine the cause for the negative site conditions and to develop corrective action measures. For the site investigation, Royal conducted an existing site condition assessment and survey to establish condition baseline. Geospatial data and as-built construction data were gathered to support analysis and design activities. Royal analyzed pre- and post-construction aerial photography to further identify cause of conditions. In addition, Royal performed an overall analysis to determine cause for negative condition by using the data collected during the site investigation phase. Royal prepared a stormwater model, generating quantity estimates and cost data for recommended improvements. Royal prepared preliminary and final plans; preliminary and final opinions of probable costs; technical specifications and performed design calculations and modeling. | |
| Completion Date (Actual or estimated): | Estimated Cost: | |
| | Entire Project: | Work for which Firm was Responsible: |
| 2019 | \$15,000 | \$15,000 |

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

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

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

Please see attached pages.

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

Scanned signature page provided on page 40

Signature: _____ Print Name: _____

Title: _____ Date: _____



Approach

Founded in 2005, Royal Engineers and Consultants, LLC (Royal) is a New Orleans based engineering and consulting firm specializing in Civil Engineering, Construction Management, Project Management, Coastal Services, Disaster Recovery, Architecture, and Digital Transformation Services. Our experience includes managing various project types from initial conception through final construction and closeout. Royal believes in providing high-quality service with honesty and integrity and seeks opportunities that enhance the communities where we work and live through improvements in infrastructure and community outreach programs.

Royal has developed an organized and systematic approach to managing complex projects and executing them successfully. We are well known for over-delivering services within budget, as well as allotted time frames while eliciting minimal disruption to the surrounding public. Our modern approach to business, backed by our keen attention to detail and personal approach to every job, is what sets Royal apart.

Royal is 100% locally owned and headquartered in New Orleans. We have delivered over \$500 million in design and construction management projects in the New Orleans area since 2005 while utilizing unique approaches to cutting edge technology. The Royal Team can and will deliver all task orders issued by the Parish under this contract, on schedule, and within budget.

Royal is dedicated to providing exceptional service, from the initial stages of project conception through project completion and closeout. A team of highly capable professionals, well acquainted with the technical and managerial demands of construction projects, provides invaluable support to both the client and contractor throughout the project's duration. Additionally, Royal offers flexibility with a wide variety of project delivery methods, allowing us to serve clients with a diverse range of project sizes and scopes.

The foundation of our exceptional service delivery is built on two items:

1. OUR PEOPLE
2. OUR PROCESS

Our people have extensive education and experience in delivering quality service on Jefferson parish projects. Our people are the key driver to project success, and they are responsible for the implementation of our process.

The Royal team is seasoned in design, engineering, and construction administration services with experience spanning a variety of drainage, flood control and sewer projects.

Our organizational starts with experienced leadership. Our highly qualified team will be led by Royal President Michael Pugh, PE who will serve as Principal with support from Katherine Foreman, PE serving as the Project Manager. Additionally, our team is supported by a group of technical subject matter



experts (SMEs) charged with quality assurance and control. These SMEs will provide support across the team at the direction of the principal. The Royal Team has ample capacity of qualified staff to ensure continuity of service and ability to surge to meet unexpected project demands.

DEMONSTRATED PERFORMANCE HISTORY

Client Letters of Recommendation

Clients across the State of Louisiana

Royal has an excellent track record of completing tasks on schedule and within budget. We have been contracted by local government agencies (City of New Orleans and Cameron, Iberia, St. John the Baptist and St. Bernard Parishes), state agencies (CPRA, LDWF), federal agencies (USACE New Orleans, Mobile, Galveston Districts, NAVFAC, Department of Veteran's Affairs) and private industry to deliver project design and construction management services. We have established a track record of client satisfaction by going beyond what our clients have requested, recommending the actions necessary, and advising clients when they have asked for services that are not necessary.



Capacity

The normal workload for Royal is 30-50 concurrent on-going projects, each with project resource capacities easily being met. As such, we offer our assurance that we can and will provide the professional services required by the RFQ immediately upon request.

We have proven the capacity to scale and mobilize sufficient resources. As a small business delivering large-scale work, our resourcing strategy includes weekly measurement (and as needed, adjustment) of project commitments, available resources, and the resulting project task assignments. All project delivery plans target ahead-of-schedule milestones to accommodate resource adaptability needs.

Quality Assurance/Quality Control

Royal has identified a team of technical subject matter experts (SMEs) charged with quality assurance and control. These SMEs will provide support across the team at the direction of the Principal Engineer/Project Manager.

Additionally, Royal maintains a robust and effective quality control system that ensures both design and construction is performed according to plans and specifications, on time, within a defined budget, and through a safe work environment. This Quality Control Approach recommends a process for identifying and preventing errors, omissions, misinterpretations and technical shortcomings in engineering/scientific documents. Royal understands that the primary function of our quality control efforts is to assure the parish that the completed project meets the quality requirements outlined in the contract.



DBE Performance

As a former Disadvantaged Business Enterprise (DBE), we are passionate about the DBE community. As demonstrated in Section D, we have a solid history of creating opportunities for our DBE partners and have a demonstrated track record of continuously going above and beyond the goals that most programs strive to meet concerning DBE participation. We partner with reputable DBE firms that have a zest for progressive work and are, like us, are driven for excellence. Royal has successfully worked with all many DBE firms, some of which also have a work history with the Parish.

Approach to Services

At Royal, we believe the first step to a successful design project is to define the Scope, Schedule, Cost, and Deliverables. Our project team meets with client to gather their input and define these four items before starting any work. Our goal while performing design engineering, engineering staff augmentation, and construction management services is to ensure the Parish is in a position of proactive response during all phases of each project. Project meetings will be held throughout the design process and Royal will prepare written comments and recommendations to Jefferson Parish concerning constructability, cost, sequencing, and scheduling.

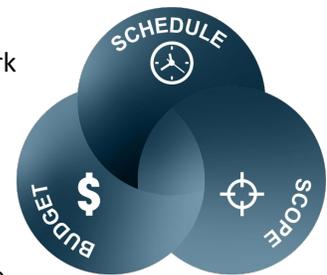
Design Engineering Services

Upon award of a project the Project Engineer will meet with both the Construction Manager and with parish personnel to review the scope of work and ensure a clear understanding of the project requirements, limitations, and expected outcomes. This meeting will mark the beginning of the Design Phase. Constructability insights will be incorporated into the plan based on this initial scoping review.

The design team will review the scope and plan, and upon agreement on the design approach, the designers will prepare schematic, preliminary, and final design documents. To verify consistency with the agreed-upon scope and client expectations, designs will be reviewed by the project delivery team. The construction team, represented by the principal construction manager and quality control manager will perform a constructability review as part of the preliminary design review, with comments documented in each discipline design file and addressed by documentation before advancing the design for Jefferson Parish to review.

The design package will be submitted to Parish within approved schedule parameters. Computer-Aided Design and Drafting (CADD) software, Autodesk Civil 3D, will be utilized to prepare design drawings. All modifications to the design drawings will be documented by the CADD operators to provide an auditable record of design changes.

The design will progress to similar reviews at 90% and Final Design unless otherwise requested by the Parish. During these later reviews, increased emphasis will be placed on the integration of the construction team and client into the design review. The construction team will focus on the constructability of the project and look at means and methods of performance. Identification of long-lead items that would impact project delivery schedules will receive particular attention. Concurrently, parish personnel will be engaged for an examination of the project operability to ensure that potential long-term maintenance hardships are not inadvertently built into the project. Before project 90% and



Key drivers to project success



Final Design reviews, a peer review or independent technical review will be performed. The review will verify the completeness and accuracy of the technical design, including calculations. The design will be completed upon addressing comments raised at the 90% design review.

Engineering design and technical support depth from the Royal Team includes civil, structural, geotechnical, and architectural. Our engineers routinely provide engineering services during all phases of the project life cycle including preliminary and final design phases.

Our ability to provide engineering support during the pre-construction and construction phase is what sets our team apart from the traditional A/E delivery model.

Construction Administration Services

Royal has an aggressive construction administration program. We view the specification as a minimum acceptable standard and conduct our construction administration operations in strict conformance with that policy. The Construction Project Manager, Principal Engineer, and Lead Inspector maintain a high profile throughout the contract.

Royal team members routinely perform Construction Submittal Reviews as part of our construction engineering inspection, monitoring, and quality control services. Contractor submittal review includes Constructability, Contract Documents, Cost Estimates, Shop Drawings, Specifications, Pay Applications, Contractor Schedules, Drawing Review and Non-Compliance Reports, etc. Reviews also include analysis of test reports and change order requests in the field. Royal will prepare and present Monthly Progress Reports to the Parish for formal review. Reports address progress vs. baseline in terms of schedule and cost and use earned value management techniques to convey the posture of the project and to forecast its completion. Typically, these reports address current progress, project baseline, project milestones, schedule value index, cost value index, and potential problems/opportunities, but can be tailored to any level to meet the Parish's needs.

In conjunction with the preparation of conformed documents issued during the Request for Qualifications (RFQ) Phase, Royal will confirm that other prerequisites are met. Royal will verify that correct insurance is in place, review the contractor's quality control plan and safety plans, and determine that the contractor's schedule is acceptable. We will assure conformance with the letter and intent of the design and the contract, while also providing clarification of design as necessary. Where submittals require a Parish decision, we will coordinate accordingly.

Submittals, Schedules, and Change Orders are critical parts of the construction management process. Royal is pro-active in the identification of potential problems and opportunities. As conflicts arise, Royal will take action with the contractor to avoid or mediate impacts through alternative methods within the contract envelope. In all cases, Royal will keep Jefferson Parish informed of circumstances and possible outcomes and will assist in the evaluation of changes as necessary. When changes are required, Royal will prepare written recommendations and justification for all changes.

Pre-Construction Phase

In the pre-construction phase, Royal assists in advertising the client's project and solicits bids from qualified contractors. We then hold a pre-bid meeting with potential bidders to review the design documents and answer any questions, to ensure accurate, well-informed bids. Our team then evaluates each submission considering the client's needs and total cost before making a final recommendation to



the client. Upon conferment of the contract award, Royal has extensive experience in managing the remainder of the pre-construction tasks, from holding the pre-construction meeting to ensuring compliance with all required permits and submittals.

Construction Phase

Throughout the construction phase, Royal acts as a client/contractor liaison and coordinates all construction activities. Starting with mobilization, Royal schedules all contracted work and ensures it is completed according to the design specifications and within the project budget. We believe that open communication among all parties is integral to the success of the project. Therefore, we take advantage of regular meetings with the contractor and report progress to the client in real-time. We practice a robust system of quality control and ensure that all work is performed in compliance with the applicable codes and industry- standard operating procedures. Part of this process is overseeing all on-site testing and

Streamlined construction management and resident inspection services with unparalleled transparency.

monitoring, as well as the submission of all relevant results/reports to governing agencies. Should any need for clarification arise, Royal processes the contractor's Request for Information and furnishes a technical interpretation of the design documents. Royal's expertise in adaptive management allows us to swiftly make adjustments in work, time, and scope in the event of unforeseen site conditions. We promptly process change orders and make recommendations to the contractor to minimize any additional costs incurred through project delay. Finally, Royal processes all contractor invoices and provides ample support in arbitrating any disputes or claims.

Project Completion

Upon substantial completion of the project, Royal coordinates the final inspection and oversees any remaining work on punch-list items. We handle the contractor's final transmittals and oversee all demobilization activities. If applicable, Royal assists with equipment startup to ensure that all construction deliverables are fully functional prior to closeout. We process any final change orders, transmit the contractor's Notice of Acceptance, and see to the final payments. In addition to any product warranties associated with the project, Royal mandates a warranty on all contracted and subcontracted work for one year from the date of final acceptance.

Royal maintains/practices a very efficient Quality Control/Quality Assurance system and employs construction managers and inspectors certified through the US Army Corp of Engineers "Construction Quality Management for Contractors." We are highly qualified to provide construction administration and resident inspection for any civil engineering construction project.

ROYALVUE

Our digital transformation platform, RoyalVUE, serves as a single system of engagement-connecting people and data in real- time and across multiple devices-and serves as a single system of record. Formerly known as "the Royal Platform", RoyalVUE offers clients transparency regarding the status and progress of ongoing work and allows clients to personally login to get "real- time" status updates on their projects.



Before and after pictures, notes on field observations, and written status can be viewed at anytime from anywhere. Clients can access project information tailored to their request in the form of custom dashboards and reports from both desktop and mobile devices with project information updated in real-time. RoyalVUE also allows us to build in and manage project exceptions, such as rain days or other legitimate delays, which serves as an accurate mediation tool in the event of a dispute. RoyalVUE eliminates a significant amount of the invoice process as accurate invoices are electronically created in the field as the project progresses and closes out.

This platform has proven in short order to be an ultimate value-added benefit to clients at no additional cost. The system is very agnostic; therefore, it can be transferred and used on other types of projects/programs that require a high level of QA/QC oversight and management.

DEMONSTRATED PERFORMANCE HISTORY

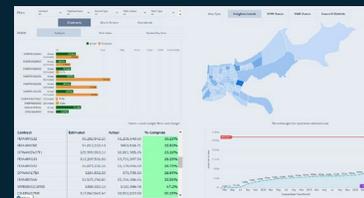
Department of Public Works MaxPave Roadway Program

City of New Orleans, Department of Public Works

A significant reason for the success and efficiency of the MaxPave Roadway Program is the use of our digital transformation platform, RoyalVUE. RoyalVUE is an asset management tool that provides our clients with real-time access to the status of every assigned work order within a program. With a personalized login, the end-user has the ability to get status updates from any computer or portable smart device at any time.

RoyalVUE allows our team to communicate real-time status updates in the field as the City's contractors make progress. Our construction managers and resident inspectors are equipped with technology that allows them to take before and after photos of work order development, log in-field observations as the project progresses, and accurately map each site in the field, which in turn updates all of our clients' maps of their assets. The platform also allows Royal to accurately create reports of completed work orders which the contractor invoices from. This has allowed Royal to eliminate a significant amount of delay from traditional invoice processing standards.

MORE INFO: See Section F: MaxPave Roadway Program



TEC Professional Services Questionnaire

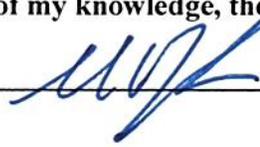
M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

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

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

Please see attached pages.

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

Signature:  Print Name: Michael Pugh, PE
 Title: President Date: 12/3/23