



Barowka and Bonura
Engineers and Consultants, L.L.C.

SOQ No. 22-054

**Miscellaneous Environmental
Services**

Resolution No.: 140859

**Deadline: Friday, January 6, 2023
at 3:30 PM**

Barowka and Bonura Engineers and Consultants, L.L.C.
209 Canal Street
Metairie, Louisiana 70005

Jeffrey Bonura, P.E., Member
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PHONE: 504-828-0030
FAX: 504-828-8006



Collaborate. Innovate. Implement.

BBEC Barowka and Bonura Engineers and Consultants, L.L.C.

January 6, 2023

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

Subject: **Statement of Qualifications to provide Miscellaneous Environmental Services for the Jefferson Parish Department of Environmental Affairs Resolution No. 140859**

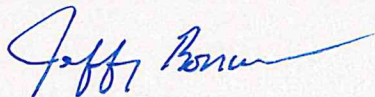
Dear Ms. Folse:

Barowka and Bonura Engineers and Consultants, L.L.C. (BBEC) appreciates the opportunity to submit this Statement of Qualifications to provide Miscellaneous Environmental Services to the Jefferson Parish Department of Environmental Affairs (Resolution No. 140859).

As evidenced in the attached Statement of Qualifications, BBEC has extensive knowledge and experience with Environmental Engineering and Services.

If you have any questions or concerns regarding this Statement of Qualifications or if I can provide additional assistance, please let me know.

Very truly yours,



Jeffrey Bonura, P.E.
Member

Attachments

A. Project Name and Advertisement Resolution Number:

Miscellaneous Environmental Services (Resolution # 140859)

B. Firm Name & Address:

**Barowka and Bonura Engineers and Consultants, L.L.C.
209 Canal Street, Metairie, LA 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:

**Jeffrey A. Bonura, P.E.
Member
Office: (504) 828-0030
Fax: (504) 828-8006
Email: jbonura@bbecllc.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.

**Kevin Forschler, P.E.
Office: (504) 828-0030
Fax: (504) 828-8006
Email: kforschler@bbecllc.com**

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

<u>5</u> Administrative	<u>1</u> Estimators	<u>1</u> Specification Writers
<u>0</u> Architects (Licensed)	<u>0</u> Geologists	<u>0</u> Structural Engineers
<u>0</u> Chemical Engineers	<u>0</u> Geotechnical Engineers	<u>0</u> Graduate Engineers
<u>5</u> Civil Engineers	<u>0</u> Interior Designers	<u>0</u> Project Managers
<u>2</u> Construction Inspectors	<u>0</u> Landscape Architects	<u>1</u> Clerical
<u>0</u> Ecologists	<u>0</u> Land Surveyor	<u>3</u> Grant/Funding Specialist
<u>1</u> Electrical Engineers	<u>0</u> Mechanical Engineers	<u>0</u> Sanitary Engineers
<u>1</u> Engineer Intern	<u>0</u> Environmental Engineers	<u>2</u> Drafters
<u>1</u> GIS		
<u>0</u> Professional Land Surveyors		<u>23</u> TOTAL

F. Is this submittal by a JOINT-VENTURE? Please check: YES ☐ NO ☒
If marked "No" skip to Section I. If marked "yes" complete Sections G-H.

TEC Professional Services Questionnaire

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

1. N/A

2. N/A

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

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

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. BBEC will obtain prior approval from the Parish before utilizing a subconsultant should one be deemed necessary. Further, we will work with any sub-consultant or support consultant assigned to us for a specific project.		
2.		
3.		

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

23

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:

**Jeffrey Bonura, P.E.
Member**

Project Assignment:

Supervising Professional / Project Manager

Name of Firm with which associated:



**Barowka and Bonura
Engineers and Consultants, L.L.C.**

Years' experience with this Firm:

25

Education: Degree(s)/Year/Specialization:

B.S. / 1991 / Civil Engineering

Active registration: Year first registered/discipline:

1995 / Civil

Other experience and qualifications relevant to the proposed Project:

Jeffrey Bonura, P.E. is a partner in the firm of Barowka and Bonura Engineers and Consultants, L.L.C. Mr. Bonura began his career in 1988 and since that time has worked as a project engineer, project manager and program manager on municipal, commercial, institutional and industrial projects.

His professional engineering experience includes the design, project management, and construction administration of a broad range of projects including water and wastewater treatment plant design and operation and maintenance management, landfill leachate collection and treatment, water transmission, wastewater collection, and stormwater management. He also has substantial experience in roadway and drainage planning, design, and construction management for civil and structural engineering projects. Mr. Bonura's grant management experience includes project formulation, cost estimation, fund accounting, and closeout of a broad range of public assistance and hazard mitigation grants.

Mr. Bonura continues to serve as Program Manager for other various roadway, drainage projects, and civil

TEC Professional Services Questionnaire

infrastructure projects throughout South Louisiana. Over the years, Mr. Bonura has become familiar with resolving construction related problems such as public relations, client satisfaction and change order negotiations. Mr. Bonura also has experience with litigation with residents due to contractor activities, litigation with the contractor to resolve claims and other disputes, and litigation with bonding companies to complete the work of a defaulted contractor.

Projects with detailed descriptions of work are provided below:

ENVIRONMENTAL

Operation & Maintenance Management/Sludge Disposal Alternatives, Jefferson Parish, LA, 1997

Mr. Bonura served as Project Manager for the O&M Management and Sludge Disposal project for the Jefferson Parish Department of Sewerage. The project included preparing standard operating procedures for all treatment phases in three wastewater treatment plants. Where process problems were encountered by the plant personnel, the problems either resolved in the operation of the system and / or recommendations were made for operation and maintenance and capital improvements. The project also included a study to determine the best method of disposing the Parish's sludge. Landfill disposal, incineration, and pelletizing, and the various methods of treatment and dewatering associated with the disposal methods, were included in the project.

Drainage Pump Station Fuel Storage Secondary Containment, Jefferson Parish, LA, 09/2002-06/2004

Mr. Bonura designed secondary containment systems to contain diesel fuel at 11 west bank drainage pump stations so that the fuel from the largest storage tank on the site would be retained in the event of a diesel fuel spill. Mr. Bonura developed details for containment systems such as concrete retaining walls for tanks farms stored on existing slabs, and lining systems for earthen containment ponds if the slab option did not provide sufficient volume. Mr. Bonura provided the details to the Drainage Department, who in-turn advertised the work for public bid as funding allowed and administered the work through construction.

Underground Storage Tank Removal Program, Jefferson Parish, LA, 1995

Mr. Bonura served as staff engineer on Jefferson Parish's Underground Storage Tank (UST) program to remove its USTs at scattered sites throughout the Parish. Mr. Bonura developed plans and specifications for the removal of the tanks and served as construction administrator during the actual removal projects. The project included coordinating the work with the individual Parish department and LDEQ, develop site and removal plans and bid specifications, develop and submit closure plans to LDEQ, and address the removal and disposal of occasional soils contaminated by leaking USTs.

Louisiana Land Trust Demolition Program, St. Bernard Parish, LA, 01/2009-06/2013

Mr. Bonura was instrumental in compliance with the EPA's requirements for stormwater erosion control prevention by providing daily inspections and weekly compliance reporting. Mr. Bonura provided information to LDEQ to show its compliance with its storm water preventions plan and permits.

Mr. Bonura coordinated with LDEQ for regulatory compliance for the abatement of structures and slabs included in the Louisiana Land Trust's residential demolition and slab removal program. BBEC provided contract management services as well as an accredited asbestos inspector to ensure that the Contractor was in full compliance with the LDEQ Air Quality Emissions Standards and LDEQ's protocol for the recycling of slabs resulting from the demolition of Hurricane Katrina damaged structures.

Demolition of Structures and Debris Removal, St. Bernard Parish, LA, 10/2006-06/2016

BBEC coordinated with the EPA and LDEQ for compliance with the EPA's plan for the abatement of residual oil deposits resulting from the spillage of oil in and throughout areas of St. Bernard Parish as a result of damage to one of the oil tanks at Murphy Oil Refinery during and following Hurricane Katrina. BBEC ensured that the required

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abatement was completed and that the EPA certified that the removal was complete prior to the Parish issuing the property for demolition.

Asbestos Abatement Project, St. Bernard Parish, LA, Phase I, 2007-2013

As Project Manager, BBEC managed the FEMA funded asbestos abatement project from 2006 until 2007. The project consisted of the completion of the abatement of 43 structures and 634 slabs. In managing the project, BBEC ensured the contractor followed all LDEQ regulations associated with the removal of asbestos containing materials.

BBEC quantified asbestos materials for structures being prepared for demolition and for slabs once the demolition has been completed. Our staff prepares change orders, checks contractor invoicing for accuracy, reviews all documentation and correspondence for project close-out and ensures that the data was submitted to the satisfaction of the client and FEMA guidelines. The contract value for this project was \$2.1M.

Asbestos Abatement Project, St. Bernard Parish, LA, Phase II, 2007-2013

As Project Manager, BBEC has been involved with the FEMA funded asbestos abatement project since 2008. The project consists of the completion of the abatement of 131 structures and 1244 slabs. In managing the project, BBEC ensures the contractor follows all LDEQ regulations associated with the removal of asbestos containing materials.

BBEC quantifies asbestos materials for structures being prepared for demolition and for slabs once the demolition has been completed. Our staff prepares change orders, checks contractor invoicing for accuracy, reviews all documentation and correspondence for project close-out and ensures that the data was submitted to the satisfaction of the client and FEMA guidelines. The contract value for this project was \$3.2M.

FEMA Hazard Mitigation Grant Village Square Site Clearance, Phase I, St. Bernard Parish, LA, 2011-2015

BBEC managed the St. Bernard Parish Village Square Site Clearance, Phase I project that consisted of the removal and recycling of concrete slab foundations and other pavement, removal of hazardous trees, clearing sites, and fill and grade of sites to promote proper drainage. In preparation for concrete recycling, BBEC ensured that the contractors complied with all regulatory requirements for the disposal of concrete slab foundations and other pavement in a recycling facility. BBEC managed the project from scope development through reimbursement for the purpose of meeting all requirements of the FEMA Hazard Mitigation Grant Program. Those requirements included, but were not limited to: collecting and reporting the scope of disaster, scope of services to be covered, cost estimate based on cost reasonableness in accordance with the Code of Federal Regulations (44 CFR Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments). Subsequent coordination with the Governor's Office of Homeland Security secured the necessary funding allocated to this work. The contract value for this project was \$720,000.

FEMA Hazard Mitigation Grant Village Square Site Clearance, Phase II, St. Bernard Parish, LA, 2011-2015

BBEC managed the St. Bernard Parish Village Square Site Clearance, Phase II project that consisted of the removal and recycling of concrete slab foundations and other pavement, removal of hazardous trees, clearing sites, and fill and grade of sites to promote proper drainage. In preparation for concrete recycling, BBEC ensured that the contractors complied with all regulatory requirements for the disposal of concrete slab foundations and other pavement in a recycling facility. BBEC managed the project from scope development through reimbursement for the purpose of meeting all requirements of the FEMA Hazard Mitigation Grant Program. Those requirements included, but were not limited to: collecting and reporting the scope of disaster, scope of services to be covered, cost estimate based on cost reasonableness in accordance with the Code of Federal Regulations (44 CFR Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments). Subsequent coordination with the Governor's Office of Homeland Security secured the necessary funding allocated to this work. The contract value for this project was \$250,000.

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Emergency Debris Removal Contract (Hurricane Katrina), St. Bernard Parish, LA, 2005-2016

Mr. Bonura served as Program Manager and administered St. Bernard Parish's emergency debris removal contract, which consisted on right-of-way and private property debris removal. BBEC located and obtained permits for the five Parish temporary debris storage and reduction sites within one week of the disaster. BBEC prepared the necessary preliminary damage assessments and requests for public assistance forms for the Parish. BBEC monitored the road clearance, debris removal, and drain line cleaning procedures, and maintained all records for proper payments to the contractor.

BBEC also provided typical construction administration services such as monitoring contractor progress, ensuring contract compliance, maintaining load tickets for payment, reviewing all contractor invoices to ensure proper payment is made, assisting the Parish in submitting all documentation to the State and FEMA for all debris related reimbursements, and addressing damage to private and public property by the contractor.

Sanitary Landfill Stormwater Detention, Jefferson Parish, LA, 1998

As part of the landfill permitting process, the requirement for the site was to contain the 25-year storm. Mr. Bonura developed the initial stormwater management plans to address the requirement. To put the landfill project out for bid, Mr. Bonura designed the actual facilities and site improvements to maintain compliance with the 25-year storm requirement. Mr. Bonura designed a complete drainage system for the 88 acre Phase III expansion site, which included the construction of ditches, canals, bridges, culverts, and outfall structures, Mr. Bonura performed the hydraulic modeling to determine the runoff for the site, performed the hydraulic modeling analysis to determine the ditch and canal cross sections, with the existing tight elevation constraints, performed a cost analysis study to determine the most cost effective method for the canal crossings, compared precast box culverts, poured in place box culverts, ConSpan sections, precast (Waskey) bridge sections, and poured in place bridge sections. Mr. Bonura determined (with concurrence of the contractor on the site) that the poured in place bridge section was the most cost-effective method, determined the culvert sizes and prepared final construction drawings and specifications for the entire project. The drainage portion of the project cost about \$3,000,000.

West Bank Water Treatment Plant Raw Water Intake Levee Crossing, Jefferson Parish, LA, 1991

Mr. Bonura designed and managed through construction the Gretna Raw Water Intake and Sludge Discharge Levee Crossing project for the West Bank Water Treatment Plant, prepared all permits, plans, and specifications required for the project and aided the Parish in securing federal funding for a portion of the work. The project consisted of a levee crossing for 36-inch, 24-inch, and 10-inch diameter pipe, a vacuum system for priming raw water intake pumps, and lining an existing raw water line with a cast-in-place pipe liner. The levee crossing consisted of installing steel sheet piles at the core of the levee, installing sleeves through the steel sheet piles for the pipe to penetrate the levee, perform the necessary earthwork on the levee per USACE standards, the installation of concrete pipe supports, and to finish the river side surface with sloped paving. All work was coordinated with an on-going sloped-paving project performed under the USACE that was occurring on both sides of the project.

During the construction phase of the project, the existing 24-inch raw water pipe was found to be severely corroded and required replacement or rehabilitation. Mr. Bonura evaluated the options, including the applicability of CIPP lining of portable water mains, and designed a CIPP system to rehabilitate the existing 24-inch pipe through a series of bends under a state highway and connecting to flanged fittings on both ends.

Chemical Feed System, Jefferson Parish, LA, 1996

Mr. Bonura served as Project Engineer, Project Manager, and Construction Manager of the chemical feed improvements project which replaced the existing dry and liquid chemical feed systems with new state-of-the-art, automated chemical feed systems for each of the six water treatment plants in Jefferson Parish, ranging from 5 MGD to 51 MGD. Mr. Bonura managed the design of the automation system that would eventually allow the

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chemical feed systems to automatically feed chemicals, measure chemical weights, self-calibrate chemical feed equipment, interface with other automation systems, automatically develop reports submitted to EPA and DHH. While the system was designed to run itself, it could completely be controlled remotely.

The project included chemical feed systems for liquid polymers, bimetallic phosphate, hydroflousilic acid, powdered activated carbon, liquid chlorine, and ammonia. Each of the systems sends feed rate, chemical usage, and operation status data to a supervisory control system from which each component of the feed system can be observed and operated. As Project Engineer, Mr. Bonura designed the aforementioned systems and administered the work through construction.

East Bank Water Treatment Plant Expansion, Jefferson Parish, LA, 1992

Mr. Bonura was Project Engineer and Construction Manager for the 17 MGD expansion to the East Bank Water Treatment Plant. Throughout the construction phase of the project, Mr. Bonura coordinated the construction and implementation of the automation system that could and would monitor and operate the complete function of the water treatment plant remotely. During the start-up phase of the project, Mr. Bonura managed the instrumentation technicians developing the various interface and interface screens to connect the PC-based software to the remote terminal units.

The project included a new raw water venturi flow meter, rapid mix basin (designed for 68 MGD), two new precipitator basins (designed for 8.5 MGD each), renovations to the ten existing sand filters to dual media filters (new capacity of 68 MGD), new high service pumping facilities and clearwell (designed for 51 MGD), and modifications to the existing high service pumping facilities to become a transfer station to storage. The entire facility received a new DCS control system, which is completely automated. The overall project increased the plant capacity from 34 MGD to 51 MGD and left the necessary piping and valves to simplify a future 17 MGD expansion by only adding two new precipitator basins and two new high service pumps. The project also left provisions for connection to a new disinfection system in anticipation of new EPA Safe Drinking Water Act regulations.

The project included constructing or renovating various buildings and structures to house the water treatment improvements. The building construction included the removal of existing masonry walls, connecting to the existing walls, roof, and foundation, and expanding the office building portion of the complex. The project also included the construction of new cmu buildings and concrete structures, and associated foundations. A test pile program was implemented for the project to determine the optimum foundation for the project structures.

West Bank Water Treatment Plant Sludge Pumping Facilities, Jefferson Parish, LA

As Project Engineer and Construction Manager for the West Bank Water Treatment Plant Sludge Pumping Facilities project, Mr. Bonura prepared plans and specifications required to completely renovate and upgrade the existing sludge pumping facilities to a capacity of 28 MGD, and to allow for the existing sludge and raw water lines to be interchangeable.

Sanitary Landfill Phase I and II Expansion, Jefferson Parish, LA, 1997

As Project Engineer and Construction Manager for the upgrade to the Phase I and Phase II sites of the Jefferson Parish Sanitary Landfill to meet new Federal Subtitle D regulations, Mr. Bonura designed about 20 HDPE leachate manholes with submersible pumps and several thousand feet of leachate collection pipe under existing solid waste. Mr. Bonura designed several thousand feet of leachate transmission lines, the retrofitting of about 20 leachate collection lines to install in-line submersible pumps, and an oxidation pond with an overflow/outfall structure. Mr. Bonura served as Construction Manager for the entire project.

Sanitary Landfill Phase III Expansion, Jefferson Parish, LA, 1998

Mr. Bonura designed the leachate collection and transmission system which included 24 submersible collection pumps, miles of collection and transmission pipe, and a transmission pumping station. Mr. Bonura determined

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stormwater runoff for the site and designed a drainage system for the 88-acre site, which included a system of canal, stormwater detention pond, and roadway crossings.

COASTAL PROTECTION / RESTORATION

Reggio Canal Flood and Erosion Protection, St. Bernard Parish, LA, 2006

The project consisted of structural design of the steel sheet pile bulkhead wall and tieback systems, design of drainage systems, connection and coordination with a levee project adjacent to the proposed bulkhead, maintenance dredging of the existing canal, utility relocations, roadway and other site restoration, traffic maintenance, and all incidental work. Mr. Bonura performed all phases of the project, including design of bulkhead and drainage system, construction supervision throughout the project and coordination with local and state agencies for disposal of spoil. Mr. Bonura supervised and worked with an engineering intern in all design aspects of the project.

Dedicated Dredging on the Barataria Basin Landbridge, Project No. 2503-08-34, Jefferson Parish, LA, 2008-2010

Mr. Bonura served as BBEC officer in charge over the project and provided quality assurance review of deliverables and provided guidance to the project engineer on the project. The project consisted of constructing and maintaining containment dikes for two designated fill areas, and then pumping dredged material from designated and permitted borrow areas into the fill areas for approximately 2,800 acres of marsh creation and nourishment. The project was located in Jefferson Parish, along the southeastern shoreline of Bayou Rigolettes and Bayou Perot on either side of the Harvey Cut, approximately 2 miles south of the town of Lafitte. BBEC performed Construction Administration and Construction Inspection services including conducting progress meetings, reviewing pay applications, preparing progress reports, coordinating submittal review and change order development, and monitoring the progress of the work to ensure compliance with the project plans and specifications.

Ring Levee Improvements, St. Bernard Parish, LA, 2003-2005

Mr. Bonura served as Project Engineer assisting St. Bernard Parish in identifying low segments of their existing levees for approximately 12 miles of Parish-maintained levees. BBEC utilized existing aerial photographs and GPS elevations obtained from a surveyor to determine the low areas as compared to the permitted levee. BBEC provided the Parish with cross sections, fill estimates, and construction details to repair the settled levees. St. Bernard Parish repaired the levees themselves.

Barataria Basin Barrier Island Shoreline Restoration Study at Caminada Headland, Project No. 2503-05-49, Lafourche Parish, LA, 2005-2007

Mr. Bonura served as BBEC officer in charge over the project and provided quality assurance review of deliverables and provided guidance to the project engineer on the project. The project was part of a feasibility level engineering and design effort to develop a plan to restore and/or protect the natural barrier island system and thereby create a sustainable ecosystem in the Barataria Basin. BBEC managed a surveying firm and a geotechnical firm in the performance of a geotechnical investigation to assess the subsurface conditions of the beach and the marsh in the project area so that the design of earthen containment levees and fill areas could be completed. BBEC coordinated the work of the surveyor and geotechnical engineer with the landowner and LDNR to ensure that the concerns of all parties were addressed and that the required data was generated to facilitate the final design of the marsh creation project.

Evaluation of Using Sunken Vessels for the Reduction of Storm Surge in the Mississippi River Gulf Outlet, Project No. 2503-05-04, 2006

The purpose of the project was to evaluate the feasibility of sinking ships to create a closure of the Mississippi River Gulf Outlet. The use of ships for closure was proposed as a near-term, temporary means for closing the

TEC Professional Services Questionnaire

channel in preparation for hurricane season until the construction of a long-term closure is completed. BBEC investigated the requirements for such a closure project including ship acquisition, ship remediation/ environmental considerations, the longevity of the closure, construction methodology, project costs and schedule, other project considerations such as permitting and attractive nuisance, and alternative projects. The report concluded that a conventional closure was preferable since it can be constructed at least as expediently, is specifically designed for its function, virtually eliminates risks to the environment and public safety, and lasts much longer than a ship breakwater closure. Mr. Bonura served as BBEC officer in charge over the project and provided quality assurance review of deliverables and provided guidance to the project engineer on the project.

Program Management Services to the Department of Public Works, 2003 Contract, St. Bernard Parish, LA

- **Recreation Park Improvements (Borgnemouth Park Improvements)** – BBEC assisted the Parish in developing a project scope, performed a wetlands determination, negotiated and managed a surveyor for topographical survey, and prepared plans and specifications for the construction of a 20 acre recreation facility including a new road, bridge, walking paths, football field, soccer field, gymnasium, concession stands, 5 baseball fields, and associated work.
- **Florida Avenue Extension Study** – BBEC developed a scope of work and negotiated an engineering contract to determine the most feasible alternative to extend a two-lane roadway through residential or wetland areas.

Braithwaite to White Ditch Levee Improvements, Public Project No. 09-01-04A, 09-01-04D, Plaquemines Parish, LA, 2012-2018

Mr. Bonura served as Project Manager for the inspection of this project which consisted of clearing and grubbing, earthen levee degrading to +2', Installation of high strength geotextile fabric, install of levee embankment at a 1 on 3 slope to a +12.5', Steel sheet pile driving, and construction of an aggregate roadway to access the project.


Sanitary Landfill 2019 Solid Waste Permit Application, Jefferson Parish, LA

BBEC worked as a subconsultant to another firm to develop a complete solid waste permit renewal for the Jefferson Parish Sanitary Landfill. BBEC's role in developing the permit application included:

- Ownership of property verification
- Site plan development, including verification of facilities, contours, soil borings and conditions, groundwater monitoring wells and conditions
- Verification of environmentally sensitive sites within the facility
- Verification of environmentally sensitive sites surrounding the facility
- Leachate collection system
- Technical review of the completed permit application

Mr. Bonura performed the reviewed the existing leachate collection system and geotechnical information to develop the leachate and geotechnical components of the permit application. Further, Mr. Bonura oversaw the balance of the work as supervising professional over the whole project.

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Kevin Forschler, P.E. Project Engineer
Project Assignment:
Project Engineer
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
7
Education: Degree(s)/Year/Specialization:
B.S. / 2014 / Civil
Active registration: Year first registered/discipline:
2020 / Civil
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Forschler is currently working on projects for the City of New Orleans, St. Bernard Parish, St. Tammany Parish and Jefferson Parish. The projects he is working on involve roadway restoration, drainage modeling and design, off-system bridges, walkway design, lift station design, and water and wastewater treatment.</p> <p>Mr. Forschler has worked on multiple projects that involved rehabilitating Katrina damaged roadways in both St. Bernard Parish and the City of New Orleans. He has also worked on numerous other roadway and drainage projects in the neighboring communities. Mr. Forschler has utilized Autodesk Storm and Sanitary Analysis and SWMM modeling programs to develop drainage models for multiple areas in Jefferson Parish, including certain sections of Waggaman and the Bissonet Plaza neighborhood. He is currently working on a drainage model for the Avondale and Bride City using SWMM V.5 area in order to determine possible drainage improvements in the area. In addition to drainage modeling, Mr. Forschler also has experience using the HYDRWIN application to design drainage systems for roadways.</p> <p>Mr. Forschler has experience working with various municipalities, coordinating with other entities such as the levee districts, LADOTD, and railway companies to resolve conflicts and ensure that proposed designs meet the entities' guidelines.</p> <p>Projects with detailed descriptions of work are provided below:</p>
STORMWATER MANAGEMENT

TEC Professional Services Questionnaire

Sanitary Landfill 2019 Solid Waste Permit Application, Jefferson Parish, LA, 01/2018-01/2020

Mr. Forschler assisted with preparing the Landfill Permit Renewal Application by gathering needed documentation to be included in the new application.

COASTAL PROTECTION / RESTORATION

Braithwaite to White Ditch Levee Improvements (Public Works Project No. 09-01-04A, 09-01-04D), Plaquemines Parish, LA, 03/2012-06/2018

Mr. Forschler provided inspection services to complete QAQC for some of the work performed by the contractor on this project. The project consisted of clearing and grubbing, earthen levee degrading to +2', Installation of high strength geotextile fabric, install of levee embankment at a 1 on 3 slope to a +12.5', Steel sheet pile driving, and construction of an aggregate roadway to access the project.

HAZARD MITIGATION GRANT PROGRAM

FEMA Hazard Mitigation Assistance Consultant (Project No. 2130-02035), Project Management for 2013 FMA Grant Funding, City of New Orleans, LA, 01/2017-Present

Mr. Forschler visited 11 sites to gather information about the history of the buildings. Using this information, he developed a scope of work for the installation of permanent generators and automatic transfer switches at each site. He then created cost estimates outlining the budget for the installation of the permanent generators and automatic transfer switches. He also provided specifications for generators and automatic transfer switches that were suitable for each site.

Technical Assistance for Floodplain Management, Community Rating System and Hazard Mitigation Related Services (Project No. 0352)), Jefferson Parish, LA, 01/2017-06/2020

Mr. Forschler provided Asset Inventory Assessments of Parish and Municipal structures for evaluation of risk vulnerabilities and mitigation opportunities in preparation of an updated multi-jurisdictional hazard mitigation plan.

DRAINAGE

Craig Avenue Drainage Improvements, Public Works Project No. 2019-022-DR, Jefferson Parish, LA, 05/2020-Present

Mr. Forschler assisted with the development of plans for the addition of new drain line on this road. The project contains the area of Craig Ave. from Kawanee Ave. to Gillen St. The scope of the project includes the installation of a new trunk line, connecting the lateral drain lines to the new trunk line, and the removal and replacement of existing concrete roadway. Mr. Forschler helped in the design of the proposed drain line, determining the correct vertical and horizontal alignment to avoid conflicts with existing utilities. He also designed the vertical profile for the proposed roadway repairs.

Widening / Stabilization of Congressman Hebert, Creely, and Bluebirds Canals, St. Bernard Parish, LA, 01/2015-Present

Mr. Forschler used Autodesk Storm and Sanitary Analysis software to create accurate drainage models of the project area for both pre-mitigation and post-mitigation conditions. The drainage model provides analyses of the area's interior canal system for a 10-year, 50-year and 100-year storm event. The results of the model were then compared to the existing house slab elevation data provided by St. Bernard Parish for each of the storms in order to determine the impact that the improvements have on flooding of the properties in the project area.

Bissonet Plaza Master Drainage Plan (A/E Project No. 20-1708), Jefferson Parish, LA, 05/2018-05/2021

Mr. Forschler met with Jefferson Parish personnel to identify and discuss flood prone streets within the study area. He worked with a CAD technician to develop a map highlighting these flood prone areas and utilized Jefferson

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Parish GIS and Autodesk Storm and Sanitary Analysis software to create an accurate drainage model of the project area. The drainage model provided analysis of the area's interior drainage system for a 10-year storm event.

Project Worksheet 20824 – Storm Drains, Jean Lafitte Parkway Drainage Line Repairs/Replacement, St. Bernard Parish, LA, 06/2014-11/2019

Mr. Forschler estimated the cost of the replacement of drain lines along Jean Lafitte Parkway from Judge Perez Dr. to the outfall at Hermitage Dr. The scope of work for the project included the removal and replacement of drain lines; removal and replacement of roadway pavement section, sidewalks, and driveways; and the improvement of the outfall at Hermitage Dr.

Waggaman Hydraulic Study, Jefferson Parish, LA, 02/2013-01/2016

Mr. Forschler performed a hydrologic study for three separate residential subdivisions in Waggaman, Louisiana, Waggaman, South Kenner, and Manor Lane. The Waggaman subdivision is bounded by River Road to the north, Live Oak Boulevard to the south, Saul's Canal to the west, and Dandelion Ditch to the east. South Kenner subdivision is bounded by River Road to the north, North Railroad Canal to the south, Saul's Canal to the east, and another subdivision to the west. The Manor Lane subdivision is bounded by River Road to the north, North Railroad Canal to the south, Latigue Road Ditch to the west, and Modern Farms Road Ditch to the east. Mr. Forschler utilized the Storm Water Management Model (SWMM) to evaluate the existing subsurface drainage capacities for each subdivision and to examine if the existing system can handle a 10-year design storm. He developed a hydrologic and hydraulic model for each area and recommended subsurface improvements based on the SWMM model to handle a 10-year design storm.

GRANT MANAGEMENT

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 07/2022-Present

Mr. Forschler coordinates with the necessary Parish Departments and A&E firms to procure all necessary documentation to develop an agreement for any as-needed coastal work that the A&E firm has been selected to perform. He reviews proposals sent by A&E firms to determine fees for as-needed work based on FEMA standards and all contract documents for as-needed coastal work to make sure that they meet federal guidelines.

WATER AND SEWER

Canebrake Utilities, Lamar County, MS, 03/2021-Present

Mr. Forschler developed initial evaluations of the existing sewer facilities and the existing water distribution system for the client. He used information from the current owner of the system and information determined during a site visit in order to provide a report on the condition of the existing systems. He also looked into the current permit status for each of the wastewater treatment facilities in order to determine if the operator had any issues meeting the state and federal requirements for the operation of the existing facilities.

Acadiana Water and Sewer, Lafayette, LA., 02/2021-Present

Mr. Forschler went on site visits to the existing wastewater treatment plants in Garden Heights, Belleville, and Mark Ridge in order to take measurements of the different sections of the treatment facilities. He also located damaged areas of each facility that would need to be replaced during construction.

WATER DISTRIBUTION

H2O Water Projects, St. Tammany Parish, LA, 09/2020-Present

The scope of work for this project is the installation of automatic flushing units to flush the water mains in four subdivisions in St. Tammany Parish in order to ensure good water quality. Mr. Forschler accompanied an operator

TEC Professional Services Questionnaire

who has experience working with automatic flushers on site visits to all four subdivisions to determine the locations that the flushing units should be installed. He then developed a plan set for the installation of the flushing units and is currently negotiating with bidders throughout the procurement process because this is a private sector project.

SEWERAGE COLLECTION

Design, Capacity, and Installation of Emergency Pump Outs (EPO) and Related Incidentals, Jefferson Parish, LA, 05/2015-05/2019

Mr. Forschler worked on the EPO Installation Initiative Project. The project contained 192 lift stations that needed EPO installations and 76 lift stations that had EPOs that were undersized or needed relocation. Through this project, new EPOs were installed at all 192 lift stations and EPO modifications were made at the other 76 lift stations. Mr. Forschler assisted with the review of lift stations and gathering site information prior to site surveys. Mr. Forschler performed all site surveys to document existing conditions and developed site sketches of the stations. Mr. Forschler performed construction administration, reviewed all lift station photos and updated As-Builts and worked with the contractor and client to make sure that the EPOs were installed correctly at each site. Mr. Forschler visited every site where installations of the new or modified EPOs were completed to make sure that the installations met the specifications provided to the contractor.

Design, Capacity, and Installation of Emergency Pump Outs (EPO) and Related Incidentals, Sewer Lift Station F7-11 Rehabilitation Jefferson Parish, LA, 05/2015-05/2019

Mr. Forschler assisted with design of the rehabilitation of two undersized lift stations. He evaluated the hydraulics of the lift stations and used that information to select pumps that would adequately handle the capacity of the stations. He determined whether the proposed pumps would fit within the wet wells for the lift stations. For the station that upgraded to a three wet well system, he selected pumps with motors that operate using a variable frequency drive.

ROADWAY AND DRAINAGE

RR176 – St. Roch Group North Group A (PMOI), City of New Orleans, LA, 10/2019-Present

Mr. Forschler accompanied a representative of New Orleans DPW and assessed the damage along the streets contained in this project. The project area consists of the streets in the area south of I-610, north of the Florida Ave. canal, east of N. Broad St., and west of Elysian Fields Ave. The scope of work for each street is either replacement of sidewalks and driveways, incidental road repairs determined by FEMA, or full replacement of roadway section and subsurface sewer, water, and/or drainage. Mr. Forschler used DOTD's HYDRWIN software to design all drainage improvements in the project area. He is also designing the roadways receiving full pavement replacement and subsurface utility relocations/improvements and creating plans for the construction of the proposed work. Mr. Forschler made sure that the plans for sewer and water line replacements addressed all SWBNO comments and that design followed the SWBNO guidelines.

RR177 – St. Roch Group North Group B (FRC), City of New Orleans, LA, 10/2019-Present

Mr. Forschler accompanied a representative of New Orleans DPW and assessed the damage along the streets contained in this project. The project area consists of the streets in the area south of I-610, north of the Florida Ave. canal, east of Elysian Fields Ave., and west of St. Roch Ave. The scope of work for each street is either replacement of sidewalks and driveways, incidental road repairs determined by FEMA, or full replacement of roadway section and subsurface sewer, water, and/or drainage. Mr. Forschler used DOTD's HYDRWIN software to design all drainage improvements in the project area. He is also designing the roadways receiving full pavement replacement and subsurface utility relocations/improvements and creating plans for the construction of the proposed work. Mr. Forschler made sure that the plans for sewer and water line replacements addressed all SWBNO comments and that design followed the SWBNO guidelines.

TEC Professional Services Questionnaire

RR178 – St. Roch Group North Group C (FRC), City of New Orleans, LA, 10/2019-Present

Mr. Forschler accompanied a representative of New Orleans DPW and assessed the damage along the streets contained in this project. The project area consists of the streets in the area south of I-610, north of the Florida Ave. canal, east of St Roch Ave., and west of the Peoples Ave. canal. The scope of work for each street is either replacement of sidewalks and driveways, incidental road repairs determined by FEMA, or full replacement of roadway section and subsurface sewer, water, and/or drainage. Mr. Forschler used DOTD's HYDRWIN software to design all drainage improvements in the project area. He is also designing the roadways receiving full pavement replacement and subsurface utility relocations/improvements and creating plans for the construction of the proposed work. Mr. Forschler made sure that the plans for sewer and water line replacements addressed all SWBNO comments and that design followed the SWBNO guidelines.

Westbank Mississippi River Bike Trail, Around Avondale Shipyard, (2017-059-RBP), Jefferson Parish, LA, 05/2018-Present

Mr. Forschler is developing plans and specifications for the construction of a bike path around the Avondale Shipyard area. The project contains the area of River Rd. from east of Avondale shipyard to LA 18 and the stretch of LA-18 up until the existing bike path access ramp west of the shipyard. The project includes the installation of a bike path on top of the levee, restriping existing shoulder to be repurposed as a bike path, widening the road to allow for bike travel, and addition of subsurface drainage in areas indicated by Jefferson Parish. Mr. Forschler is also currently developing the necessary details to cross active railroads at 3 locations and working with the railroad company and LDOTD to obtain construction permits.

Cleary Improvements (Veterans Blvd. to West Esplanade Ave.) (Council District 5) Jefferson Parish, LA, Public Works No. 2017-014-RBP, 11/2017-Present

Mr. Forschler assisted with developing plans for the rehabilitation of this road and verified that the proposed vertical profiles allowed for positive drainage along the road. The project contains the area of Cleary Ave. from Veterans Blvd. to W. Esplanade Ave. The repairs to be made include removing and replacing the existing concrete roadway, adding improvements to the subsurface drainage system, and relocating any utilities that were conflicts.

Ames Boulevard Rehabilitation, West Bank Expressway to Happy Street, (Public Works Project No. 2013-033-RB) (DOTD No. H.011797), Jefferson Parish, LA, 11/2015-Present

Mr. Forschler assessed the damage along Ames Blvd. and created plans for the rehabilitation of this damage. The project contains the area of Ames Blvd. from the Westbank Expressway to Happy St. The repairs to be made include milling the existing asphalt overlaying the existing concrete roadway, replacing any damaged concrete panels, overlaying the concrete roadway, replacing any damaged sections of curb and gutter, and removing and replacing any damaged drive aprons and sidewalks. Mr. Forschler is responsible for visiting Ames to document where repairs need to be made along the roadway. Mr. Forschler addressed all comments that DOTD provided in order to ensure that all DOTD guidelines were met and reviewed the bid tabulation from DOTD to check for any errors.

Mid-City Street Improvements (Project No. 2012-FEMA-4G-1), City of New Orleans, LA, 11/2012-Present

Mr. Forschler reviewed plans to ensure that our drawings meet the City of New Orleans Standards.

Engineering Services for the Four-Year Road Maintenance Program (Project No. P160302), St. Charles Parish, LA, 04/2016-12/2019

Mr. Forschler made site visits to each street in St. Charles Parish included in the Road Maintenance Program and gathered relevant information on the current condition of each street. The information was then used to determine which streets required repair and what the scope of work for each street repair should be for the project.

Comprehensive Pedestrian and Bicycle Master Plan, St. Charles Parish, LA, 02/2017-01/2019

Mr. Forschler provided cost estimates for the construction of the proposed bike paths in the bike path study.

TEC Professional Services Questionnaire

Hurricane Katrina Damage Roadway Restoration, East Law Damage Assessment, St. Bernard Parish, LA, 07/2015-05/2018


BBEC was hired by SBP to assess the roadway and subsurface damages caused by a private operator, Mr. Forschler reviewed sewer and drain line videos for damages, prepared the evaluation report and cost estimate to repair damages.

Hurricane Katrina Damage Roadway Restoration, St. Bernard Parish, LA, 06/2015-08/2017

Mr. Forschler accompanied BBEC and St. Bernard Parish (SBP) representatives during the supplemental walkthroughs, taking pictures of any of the damages and issues that SBP requested to be addressed. He also used the elevation surveys provided by Barriere Construction Co., L.L.C. to determine if drainage could be improved on the streets that had issues with standing water post construction. Mr. Forschler reviewed as-builts for each road for closeout to check for discrepancies between the as-builts provided by the contractor and our own.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
John Sparks Construction Services
Project Assignment:
Design / Construction Management
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
1
Education: Degree(s)/Year/Specialization:
M.S. / 1998 / Civil Engineering B.S. / 1994 / Civil Engineering
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Sparks has over twenty-three years of experience in civil and environmental engineering and construction with a strong emphasis on the design and construction of Wastewater Treatment, Collection and Pumping Systems. He has successfully managed the engineering design and/or construction of multi-million-dollar projects in the field of wastewater and heavy construction, for both public and private entities/clients. He has substantial experience in the field of Assessment Management for public utilities, including the use and development of GIS applications for asset inventory, and the development of asset mapping systems. As the Site Manager for an ISO certified manufacturing facility, Mr. Sparks has extensive knowledge and experience with the control of inventory, process upgrades to meet regulatory requirements, quality assurance and quality control, and the development of processes to improve and standardize production outputs and deliverables. Mr. Sparks has also rounded out his knowledge with experience in heavy construction including management of rehabilitation and construction of waterways and water control structures, the management of site work and road building projects. Significant and recent projects are listed below.</p> <p>Projects with detailed descriptions of work are provided below:</p> <p>SEWERAGE TREATMENT</p> <p>Acadiana Water and Sewer, Lafayette, LA, Lafayette, LA, 08/2021-Present</p> <p>The project includes the rehabilitation and upgrades of three existing extended aeration sewer plants in Lafayette</p>

TEC Professional Services Questionnaire

Parish, Louisiana. BBEC provided engineering design and construction administration services for the improvements and upgrades for each facility. Mr. Sparks performed construction budget estimating and review of treatment processes and process equipment specifications.

Water & Wastewater Utilities- Design of Improvements/Upgrades, Multiple Parishes, LA, 07/2022-Present

The project is the design and budgeting of initial and secondary improvements and rehabilitation of existing wastewater treatment plants and collection systems for the client. Mr. Sparks performed the technical and engineering design and specifications for the primary and secondary treatment and activated sludge process treatment processes. Mr. Sparks also provided design of flow monitoring and SCADA improvements for the treatment plants. The project consists of 20 wastewater treatment plants operating as extended aeration treatment and facultative pond treatment. Anticipated completion date is October 2022.

TESI, Multiple Parishes, LA, 10/2021-07/2022

Mr. Sparks performed assessments and evaluations of 26 wastewater treatment systems including treatment and collection, and 3 public water systems. The scope of Mr. Sparks' work included the site investigation of individual treatment facilities, collection, and distribution systems to assess structural conditions, equipment operation, evidence of process issues, and overall general operational conditions. The evaluation and assessment report is prepared using site observations and data collected from regulatory agencies; and includes the identifying of facilities deficiencies, recommendations of means to correct deficiencies and costs budgeting for implementation of corrections.

Water & Wastewater Utilities – Condition Assessments/Evaluation, Multiple Parishes, LA, 05/2022-07/2022

Mr. Sparks performed site inspections, assessments, and evaluations of 26 wastewater treatment systems including treatment and collection, and 4 public water systems. The scope of Mr. Sparks' work included the site investigation of individual treatment facilities, collection, and distribution systems to assess structural conditions, equipment operation, evidence of process issues, and overall general operational conditions. The evaluation and assessment report is prepared using site observations and data collected from regulatory agencies; and includes the identifying of facilities deficiencies, recommendations of means to correct deficiencies and costs budgeting for implementation of corrections.

Eden Isles and Meadows WWTP EQ Basin Analysis, St. Tammany Parish, LA, 08/2021-10/2021

Conducted an analysis of the needs and means for providing flow equalization measures to mitigate the impact of extraneous flows to the wastewater treatment plants. Analysis and evaluation of diurnal flows and precipitation events was performed to determine equalization requirements. Project also included preliminary design budgeting for additional buildings affected by damaging storm events occurring during Hurricane Ida.

PREVIOUS EMPLOYMENT

Continuing Sewer Assessment Program, City of Vicksburg, MS 2/2016 – 11/2020

Evaluation Program -- Years One through Four

Street Repairs Program – Years One through Three

Mr. Sparks was the Project Manager for the sanitary sewer evaluation and repair projects for the City. The evaluation projects consisted of smoke testing, inspection of sewer lines and manholes. Provided deliverables of evaluation and analysis of observations made during the inspection phases. Deliverables also included the GIS positioning of assets and observations/defects. Evaluation projects consisted of the annual assessment of approximately 150,000 linear feet of sanitary sewer and 500 manholes. Repair projects consisted of new installations of sewer lines and manholes, replacement of existing sewer lines by excavation, rehabilitation of existing sewer lines by Cured-In-Place Pipe (CIPP) and Pipe-bursting. Mr. Sparks was responsible for the design and routing of all bypass pumping and traffic control. Repair projects had an annual construction value of approximately 1.5 million.

TEC Professional Services Questionnaire

Judge Perez Sewer Rehabilitation, St. Bernard Parish, LA 2019

Mr. Sparks served as project manager for the rehabilitation of a 24-36" interceptor along Judge Perez from Paris Road to Valero refinery. Project included incoming line repairs by pipe bursting and rehabilitation of lateral services. Project included the boring and installation of 2,000 linear feet of 20-inch diameter HDPE force main. Permitting was obtained due to the vicinity of a high pressure/capacity natural gas line. Mr. Sparks also designed the capacities and layouts of all bypass pumping for maintenance of sanitary sewer flows and the design and installation of temporary traffic control for 24-hour lane closures on Judge Perez.

Sanitary Sewer CIPP Rehabilitation, Various Locations, Daphne Utilities, Daphne, AL 2017-2020

Mr. Sparks served as the project manager for the construction of rehabilitation of 8-24" diameter sanitary sewer lines for the authority under a three-year contract. Mr. Sparks was responsible for the design and routing of all bypass pumping and temporary traffic control. This included the design and installation of a high head bypass system with 24" diameter HDPE discharge piping with multiple permit-required road crossing by open cut excavation.

A2/A4 Basins—Downtown Sewer Rehabilitation, Emerald Coast Utilities Authority, Pensacola, FL, 2008-2009

Mr. Sparks served as project manager for the rehabilitation of over 100,000 linear feet of 8-36" sanitary sewer lines. The project also included the design and installation of road crossings by directional drilling/boring. Mr. Sparks was responsible for all Permit-required Temporary Traffic Control needed for intersection and lane closures on FLDOT State Highways. Mr. Sparks was responsible for the design and routing of all bypass pumping required. Also, responsible for all required City permits and coordination between involved entities during all construction activities.

Suncoast Infrastructure Inc., Project Manager, Florence, MS, 01/2005-04/2021

Mr. Sparks provided project management of CIPP and sewer construction projects and evaluated and analyzed sewer collection and treatment systems. He managed wetout facility, and materials inventory and improved efficiencies and capabilities of manufacturing.


Lampkin Construction Co., Inc., Vice President/Project Manager, Vicksburg, MS, 09/2002-12/2004

Mr. Sparks performed construction management of heavy construction projects, including USACE, USGS, FHWA design build projects, bank stabilization, lake dam rehabilitation, and road building. He managed inventory and certifications of rock yards.

Neel Schaffer, Inc., EI/PE Project Engineer, Jackson, MS, 06/1998-09/2002

Mr. Sparks performed design and construction administration services for water and sewer projects, lift station, WWTP rehabilitation projects and hydraulic analysis of water systems.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Madan Kamboj, P.E. Project Engineer
Project Assignment:
Project Engineer / Project Development
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
2
Education: Degree(s)/Year/Specialization:
M.S. / 1978 / Civil Engineering: Structures/Soil Mechanics B.S. / 1967 / Civil Engineering
Active registration: Year first registered/discipline:
1977 / Civil - Environmental
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Kamboj has more than 42 years of experience performing project design, construction administration, and project monitoring for general civil projects including drainage, utilities, streets, highways and bridges, buildings, water and sewer treatment plants, multi-story parking garages; airport taxiways, traffic separation facilities, bike paths, and overhead pedestrian walkways at high traffic intersections.</p> <p>Mr. Kamboj has successfully attended a course in "Highway Capacity Manual" at New York Polytechnical. He led a team of Engineers and Cost Estimators for conducting line and grade studies for North South Expressway in Northern Louisiana which eventually became Interstate 49. This project includes Hydraulic Design of culverts, pavement type analysis, intersection geometry and cost estimates for each projected alignment analysis. Mr. Kamboj designed twelve (12) miles of US-61 four lane highway in Wilkinson County, Mississippi for MDOT. He evaluated geometrical design, profile and grades, intersection layout, culvert analysis and cost estimation for construction. Mr. Kamboj designed city streets for C.J. Peete including geometry, pavement, design, intersection improvements, redesigning utilities (e.g. water, sewer, gas) and drainage improvements. The cost of street improvements was \$24M.</p> <p>Projects with detailed descriptions of work are provided below:</p>
DRAINAGE
Gloria Drive Pump Station, Project No. 20-2022A, Lafitte Area Independent Levee District Drainage, Town of Jean Lafitte, LA., 02/2021 – Present

TEC Professional Services Questionnaire

Mr. Kamboj is providing Structural and Foundation design of Gloria Drive Pumping Station and approximately 70 Ft. long Steel Sheet Pile wall supported by ASTM D25 Timber Piles. The Pump Station design incorporates designing foundations supported by 14"X 14" PPC Piles, Concrete Base Level, Middle Level and Roof Slabs, Concrete Enclosure Walls & Structural Supports for Pump Station Screens. The present Generator Structure will be enlarged and strengthened to accommodate new electrical equipment.

CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 10/2020-Present

Mr. Kamboj is preparing drainage improvements by the Jack & Bore method of multiple culvert sites to improve frequent flooding in Luling, St. Charles Parish. Multiple culverts employing Jacking Method are to be rammed under the road embankment by using 72", 60" and 48" metal pipes. The ditches on inlet and outlet shall be improved by providing Conspan Culvert Bridges and these ditches shall be provided with G.C.C.M. lining to improve flow of rain discharge. The project cost is \$6.2M.

ROADWAY AND DRAINAGE

Westbank Mississippi River Bike Trail, Around Avondale Shipyard, (2017-059-RBP), Jefferson Parish, LA, 12/2020-Present

Mr. Kamboj is designing a 2.3 milelong bike path along River Road and finishing on the top of Mississippi River Levee. The bike path is designed to provide separated path to the pedestrians and shall provide safety by separating bike and pedestrian traffic. The project cost is \$350,000.

RR176 – St. Roch Group North Group A (PMOI), City of New Orleans, LA, 10/2019-Present

Mr. Kamboj is currently performing design services for FEMA-eligible street repairs in the area south of I-610, north of the Florida Ave. canal, east of N. Broad St., and west of Elysian Fields Ave. The scope of work for each street varies and includes the following types of work: replacement of sidewalks and driveways, incidental road repairs determined by FEMA, and full replacement of roadway section and subsurface sewer, water, and/or drainage. He is also assisting with the design of roadways receiving full pavement replacement and subsurface utility relocations/improvements and creating plans for the construction of the proposed work. The project contains 39 streets with a cost estimate of \$6,054,030.68.

RR177 – St. Roch Group North Group B (FRC), City of New Orleans, LA, 10/2019-Present

Mr. Kamboj is currently performing design services for FEMA-eligible street repairs in the area south of I-610, north of the Florida Ave. canal, east of Elysian Fields Ave., and west of St. Roch Ave. The scope of work for each street varies and includes the following types of work: replacement of sidewalks and driveways, incidental road repairs determined by FEMA, and full replacement of roadway section and subsurface sewer, water, and/or drainage. He is also assisting with the design of the roadways receiving full pavement replacement and subsurface utility relocations/improvements and creating plans for the construction of the proposed work. The project contains 33 streets with a cost estimate of \$6,161,483.33.

RR178 – St. Roch Group North Group C (FRC), City of New Orleans, LA, 10/2019-Present

Mr. Kamboj is currently performing design services for FEMA-eligible street repairs in the south of I-610, north of the Florida Ave. canal, east of St Roch Ave., and west of the Peoples Ave. canal. The scope of work for each street varies and includes the following types of work: replacement of sidewalks and driveways, incidental road repairs determined by FEMA, and full replacement of roadway section and subsurface sewer, water, and/or drainage. He is also assisting with the design of the roadways receiving full pavement replacement and subsurface utility relocations/improvements and creating plans for the construction of the proposed work. The project contains 48 streets with a cost estimate of \$5,485,357.95.

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WATER AND SEWER

Acadiana Water and Sewer, Lafayette, LA, 12/2020-Present

Bellville Wastewater Treatment, Garden Height & Mark Ridge Wastewater Treatment Plants

Mr. Kamboj is completing the design of Bar Screens and support structures, removal and upgrades for existing air valves and diffusers and replacement of rusted pipe hangers & other pipe supports.

GRANT MANAGEMENT

Grant Management Services for Federal and State Grants, Town of Jean Lafitte, LA, 04/2022 - Present

Mr. Madan Kamboj, P.E., is responsible for developing damage assessments of public infrastructure, buildings, and levee systems. He estimates cost of repairs while applying the latest codes and standards to the damage components.

PREVIOUS EMPLOYMENT

I.M.S. Engineers, New Orleans, LA, 05/2018-03/2020

Mr. Kamboj provided quality control over IMS Projects in Houston, Texas, New Orleans, & Memphis Tennessee. The Projects included Byram Clinton Overpass 55x144X55 Post Tensioned Box, City of Memphis Parking Garage Rehabilitation \$ 8.5 Million Const. Cost. NWEPP Water Treatment Plant, Humble TX. He also mentored younger engineers, interns and he reviewed project calculations and drawings on this captioned project.

Julien Engineering & Consulting, New Orleans, LA, 09/2006-08/2013

Mr. Kamboj served as Senior Project Manager for the design & construction management of the C.J. Peete Housing Project \$183 Million - 460 Units, Imperial, Tchoupitoulas & Ogden Multi-Family development, Total 150 units each. Walnut Square development in E. New Orleans, LA., 220 Units. Dillard University, Stern & Rosenwald Hall Improvements.

RM Clayout Facility, Atlanta, Georgia, 04/2004-09/2006

While employed with Delon Hampton Associates, Mr. Kamboj was responsible for construction supervision of RM Clayout Facility. RM Clayton Wastewater Treatment Plant is designed to pump 100 million gallons per day to new CSO plant. Two submersible dewatering pumps with a capacity of 4.3 MGD keep the groundwater that may infiltrate the plant.

Clear Creek CSO Treatment Facility, Atlanta, Georgia, 04/2004-09/2006

While employed with Delon Hampton Associates, Mr. Kamboj was in charge of the structural design group. The Clear Creek CSO Treatment serves as one of the largest combined sewershed of the City's seven (7) CSO facilities and includes the downtown business district and midtown areas. Dry weather flow 40 MGD is routed to the Peachtree Intercept which then takes the flow to RM Clayton WRC for treatment. Wet weather flow is routed to Clear Creek CSO facility for treatment before being discharged to open channel that leads to Clear Creek.

Florida Avenue Bridge Extension, New Orleans, LA, 04/2003-10/2004

Mr. Kamboj served as Project Manager/Senior Civil Engineer for the following:

Planned E.I.S. documents for \$135 million, Florida Avenue bridge crossing over Inter-Coastal Waterway, in New Orleans LA. The main span for the crossing is 450 ft with side spans of 275 ft. each, the clearance over the channel is 156 ft. vertical and 350 ft. horizontal. Multi-directional interchanges at Alvar Street/ Poland Ave., Caffin Avenue and Tupelo Streets. The roadway continues into St Bernard Parish and ties at-grade to Paris Road (LA 47).

His responsibilities included line and grade studies, public input for E.I.S. document, plan profile of various alternates, cost estimation, utility relocations, right-of-way studies, traffic, noise impacts, and maritime traffic

TEC Professional Services Questionnaire

studies for movable and fixed span bridge structures.

B & E Jackson Engineers, Atlanta, GA., 06/2001-11/2003

Mr. Kamboj performed planning and preliminary design for rerouting I-285 with twin tunnel structures under proposed New Runway V and related Taxiway 10-28 at Hartsfield Airport.

He also performed planning and preliminary design for I-285 from Riverdale Road (GA 139) to Lake Mirror Road, detailed construction sequence, traffic detours, and construction estimation. Project Const Cost: \$ 160 million. Consolidated Rental Car facility planning, preliminary design for people movers, parking garages and maintenance facilities for all rental carriers at Hartsfield airport. Concourse E planning and preliminary design for land side at-grade and elevated access at the airport, improvements to Airport Blvd. Roadways, ramps and retaining wall structures, geometry and profiles, drainage and utility relocations. Project Const. Cost: \$ 182 million.

Burk Klienpeter Inc. Consulting Engineers, City of New Orleans, LA, 09/1999-09/2000 & 04/1994-06/1996

Mr. Kamboj's work included the design of sewer and water treatment projects including clarifiers, contact chambers, secondary treatment chambers, sludge digesters, silting basins for New Orleans Sewer and Water Board and Jefferson and St. Bernard Parishes. He also completed the design of industrial building for cargo containers at Chalmette Storage complex at Old Kaiser Plant site and designed and supervised over engineering-interns, technicians and cad operators for I-10 and I-610 multi-directional Interchange for LA DOT. The design involved column and pile bent substructures, prestressed girders, steel plate girders, roadway slabs, approach slabs and retaining walls. Project Const. Cost: \$ 32 million.


Volkert Consulting Engineer, Metairie LA, 1990-1994

Mr. Kamboj designed US 61 12 miles of four lane highway in Wilkinson County for MDOT, designed geometry, plan & profile, drainage culverts with HY-8, drainage ditches and construction sequencing.

Mr. Kamboj designed 6500 ft long, 75 wide Taxiway at New Orleans International Airport in Kenner LA, this Taxiway was surcharged with 13 ft high fill to reduce after construction settlement. The cross Taxiways leading to East West Runway had 8 ft of Polystyrene under the pavement to reduce differential settlement at the intersections to the East West Runway.

State of Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Matthew Hahn, P.E. Professional Engineer
Project Assignment:
Project Engineer
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
1
Education: Degree(s)/Year/Specialization:
B.S. / 2016 / Civil Engineer
Active registration: Year first registered/discipline:
2020 / Civil
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Hahn has over six years of experience in the field of civil and consulting engineering with a strong background in water resources, civil/site design, project management, and land surveying. His vast knowledge includes but is not limited to water distribution systems, hydrologic modeling and drainage design, sewerage and wastewater treatment, site development and planning, structural design, public speaking, topographic land surveying, boundary surveying, floor elevation surveying, earthwork balancing and site grading, recreation facilities/athletic fields, public bid process, permitting, and construction administration and management.</p> <p>Projects with detailed descriptions of work are provided below:</p> <p>DRAINAGE</p> <p>Hill Heights Drainage Improvements, Project No. P190802, Ordinance No. 22-3-14, St. Charles Parish, LA, 04/2022 – Present</p> <p>Mr. Hahn is assisting with engineering and design of drainage improvements at the Hill Heights Canal in the Ormond Estates Subdivision on the east bank of St. Charles Parish. The project includes the removal and replacement of the existing steel sheet pile wall along the east bank of the Canal. New sheet piles will be installed along the entire 1,200-foot length of the canal.</p> <p>Drainage Evaluation of Metairie Road, Jefferson Parish, LA, 10/2017-03/2020</p> <p>As Project Manager, Mr. Hahn used EPA SWMM software to complete a drainage assessment of a 2-mile segment of Metairie Road from Causeway Boulevard to Focis Street. Mr. Hahn modeled the drainage system,</p>

TEC Professional Services Questionnaire

developed improvement alternatives, and prepared a report of findings.

U.S. Highway 51 Drainage Improvements, Town of Amite, LA, 02/2021-08/2021

As Project Manager, Mr. Hahn used EPA SWMM software to complete a drainage assessment of a 1-mile segment of U.S. Highway 51 in Amite City, LA. Mr. Hahn developed conceptual design of drainage improvements, sidewalk improvements, and developed cost estimates and a report of findings.

CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 04/2022 – Present

As a project engineer, Mr. Hahn is developing the plans, specifications, and cost estimates for this project which includes the construction of several new drainage culverts crossing and/or adjacent to the CN railroad in Destrehan, St. Charles Parish, LA. Mr. Hahn is also preparing the CN Railroad permitting documents for the new drainage improvements.

WATER DISTRIBUTION SYSTEMS

Woodpark Waterline Relocation, Myrtle Grove, LA, 06/2016-01/2020

Mr. Hahn assisted with development of the plans and specifications for construction of over 2,000 feet of new 12" potable water main, including fire hydrants, valves, and service connections in the Woodpark community in Myrtle Grove, LA, in conjunction with design of new floodwall improvements performed by the U.S. Army Corps of Engineers.

Amite Water System Improvements, Town of Amite, LA, 05/2016-04/2022

As Project Manager, Mr. Hahn developed cost estimates, plans and specifications for construction of over 15,000 feet of new 6" potable water main, including fire hydrants, valves, and 130 service connections. Mr. Hahn also conducted field visits and construction phase services.

Foulks Lane and City Barn Water Tanks, Town of Amite, LA, 05/2018-05/2021

Mr. Hahn designed improvements for elevated steel potable water tanks in the Town of Amite City, LA. Mr. Hahn prepared cost estimates, and developed plans and specifications for this project.

WATER TREATMENT

Eden Isles Water System GAC Filter Improvements, Eden Isles, LA, 05/2022-Present

As a project engineer, Mr. Hahn is developing the plans, specifications, and cost estimates for this project. The client is Central States Water Resources (CSWR). This project includes new potable water treatment improvements, including new granular activated carbon (GAC) water filter units, steel building to house the filters, and water piping on site.

WASTEWATER TREATMENT

Water & Wastewater Utilities, Multiple Parishes, LA, 04/2022-Present

Mr. Hahn provided technical and field assistance for this project, which includes investigation, evaluation, and assessment of existing wastewater and water systems to be procured by the client. Mr. Hahn performed site investigations of individual treatment facilities, collection, and distribution systems to assess structural conditions, equipment operation, evidence of process issues, and overall general operational conditions. Mr. Hahn also assisted with development of evaluation and assessment reports.

Eden Isles WWTP Flow Equalization Improvements, Eden Isles, LA, 05/2022-Present

As a project engineer, Mr. Hahn is developing the plans, specifications, and cost estimates for this project. The client is Central States Water Resources (CSWR). Mr. Hahn is designing improvements to the existing extended

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aeration wastewater treatment plant in Eden Isles, including a new flow equalization basin for managing sewage flows, improvements to the aeration blower units, and improvements to the tertiary sand filter unit.

STRUCTURAL SYSTEMS

Rampart Street Parking Garage, City of New Orleans, LA, 10/2021-04/2022

Mr. Hahn provided technical support and surveying in conjunction with a structural assessment of the Rampart Street Parking Garage in the New Orleans French Quarter. Mr. Hahn conducted structural and deflection computations of cantilever parking garage slabs.

Venice Port Complex Bulkheads, Plaquemines Parish, LA, 11/2019-02/2022

Mr. Hahn performed structural computations of a steel sheet-pile retaining wall as part of design of bulkhead improvements at the Venice Port Complex in Venice, LA. Mr. Hahn also performed a lateral earth pressure assessment in conjunction with this work.

Phillips 66 Alliance Refinery Floodwall Assessment, Plaquemines Parish, LA, 01/2022-04/2022

Mr. Hahn provided technical and field support in conjunction with an assessment of sheet-pile floodwalls at the Alliance Refinery in Belle Chasse, LA. Mr. Hahn conducted site visits, field measurements and surveying, and developed a report of findings.

Animal Shelter Building Assessment, Plaquemines Parish, LA, 05/2018-05/2021

Mr. Hahn performed floor elevation surveys of the Plaquemines Parish Animal Shelter in Belle Chasse, LA, in conjunction with assessment of building settlement. Mr. Hahn also assisted with development of building rehabilitation alternatives.

CIVIL/SITE DEVELOPMENT

Neola Farm Sports Complex, Town of Amite, LA, 06/2016-06/2021

As Project Manager, Mr. Hahn developed the plans, specifications, and cost estimates for construction of a multi-purpose sports complex, including four baseball fields, football field, parking lot, roadway, restroom/concession building, sewerage lift station, and various site amenities. Mr. Hahn performed earthwork balancing and drainage computations during the project design phase.

Kentwood Recreational Facility, Kentwood, LA, 05/2017-05/2020

As Project Manager, Mr. Hahn developed the plans and specifications for construction of a baseball complex in Kentwood, LA, including entrance road, parking lot, 3 baseball fields, and drainage improvements.

ROADWAY AND DRAINAGE

RR176 – St. Roch Group North Group A (PMOI), City of New Orleans, LA, 06/2022-Present

Mr. Hahn developed cost estimates and quantity estimates for FEMA-eligible road rehabilitation work as part of this project. This project includes assisting the City of New Orleans in assessment of the damage along the streets contained in this project, and providing design services for FEMA-eligible street repairs in the area south of I-610, north of the Florida Ave. canal, east of N. Broad St., and west of Elysian Fields Ave. The scope of work for each street varies and includes the following types of work: replacement of sidewalks and driveways, incidental road repairs determined by FEMA, and full replacement of roadway section and subsurface sewer, water, and/or drainage.

RR178 – St. Roch Group North Group C (FRC), City of New Orleans, LA, 04/2022-Present

Mr. Hahn developed cost estimates and quantity estimates for FEMA-eligible road rehabilitation work as part of this project. This project includes assisting the City of New Orleans in assessment of the damage along the streets

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contained in this project, and providing design services for FEMA-eligible street repairs in the area south of I-610, north of the Florida Ave. canal, east of N. Broad St., and west of Elysian Fields Ave. The scope of work for each street varies and includes the following types of work: replacement of sidewalks and driveways, incidental road repairs determined by FEMA, and full replacement of roadway section and subsurface sewer, water, and/or drainage.

ROADWAYS

Barataria Boulevard Right-Turn Lane in Marrero, Jefferson Parish, LA, 04/2020-05/2021

Mr. Hahn provided technical assistance with design and development of roadway improvements in Jefferson Parish, LA. This work included drafting and cost estimating of new right-turn lane improvements.

Jump Basin Road Improvements, Venice, LA, 06/2021-04/2022

Mr. Hahn developed conceptual designs of new roadway improvements of Jump Basin Road located near the Venice Port Complex in Venice, LA. in Jefferson Parish, LA. Mr. Hahn performed surveying work, design and cost estimating as part of this project.

GRANT MANAGEMENT

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 06/2022-Present

Mr. Hahn developed dredge volume estimates and cost estimates for the proposed dredging and debris removal of residential canals in the Barataria area near Jean Lafitte, LA. This project includes the processing of FEMA reimbursements, based on federal and state requirements and development of closeout documentation for the Parish of Jefferson.


Grant Management Services for Federal and State Grants, Town of Jean Lafitte, LA, 05/2022-Present

This project includes grant management services for the Town of Jean Lafitte and the Lafitte Area Independent Levee District project to close out almost \$3.9M in FEMA Public Assistance Grants. As part of this project, Mr. Hahn prepared cost estimates and fee estimates for the Town of Jean Lafitte temporary town hall building construction required due to the impacts of Hurricane Ida.

FEMA Hazard Mitigation Assistance (HMA) Programs, Hidalgo Rétention Pond, (2021 Contract), Terrebonne Parish, LA, 08/2022-Present

This project includes FEMA grant assistance for the Parish of Terrebonne. As part of the FEMA grant application prepared by BBEC, Mr. Hahn developed construction cost estimates for drainage improvements at the Hidalgo Drive Subdivision off of LA Highway 315 in Houma, LA. Mr. Hahn performed rational method runoff calculations and stage-discharge analyses to develop conceptual designs for cost estimating the project. Proposed drainage improvements include construction of a new detention pond at Hidalgo Drive to mitigate excess stormwater flooding and new stormwater pumping station.

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Craig Comeaux Project Manager
Project Assignment:
Project Management
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
21
Education: Degree(s)/Year/Specialization:
M.A. / In Progress / Public Policy and Administration B.S. / 1996 / Mathematics
Active registration: Year first registered/discipline:
2011 / Professional Engineer - Civil
Other experience and qualifications relevant to the proposed Project:
<p>Craig Comeaux joined Barowka and Bonura Engineers and Consultants, L.L.C., in 2000. Since that time, Mr. Comeaux has successfully managed or been significantly involved in nearly 100 federal recovery projects in a program management capacity throughout South Louisiana. These projects involve FEMA Public Assistance Grants, FEMA Hazard Mitigation Grants, and U.S. Department of Housing and Urban Development Community Development Block Grants. Mr. Comeaux worked extensively in coordination with FEMA, GOHSEP, Office of Community Development, and local Parish groups to manage over \$750 million in project funds, including oversight of project inspection.</p> <p>In addition to program management, Mr. Comeaux has experience in grant management which includes project formulation, cost estimation, fund accounting, and closeout of a broad range of public assistance and hazard mitigation grants. Mr. Comeaux has experience as an educator and school administrator which includes conducting professional development and community outreach opportunities for employees, parents, students, and other constituent groups.</p> <p>FEMA Hazard Mitigation Grant Village Square Site Clearance, Phases 1, 2 and 3, St. Bernard Parish, LA, 2011-2015</p> <p>Mr. Comeaux coordinated and managed contracts involved in the removal of slabs and all associated concrete in the Village Square area of St. Bernard Parish in compliance with FEMA's Hazard Mitigation Grant Program to return properties in the affected area to green space. He prepared and reviewed contract specifications and advertisements, prepared change order adjustments, completed site reviews with the contractor, conducted progress meetings with contractors and reviewed daily schedules and progress reports. The value for this contract</p>

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totaled \$1.2 million.

- FY 2011 HMGP Acquisition/Demolition\$1,071,555.00

Residential Slab Removal, St. Bernard Parish, LA, 2011-2013

Mr. Comeaux coordinated and managed contracts involved in the removal of slabs and all associated concrete from privately-owned sites throughout St. Bernard Parish where removal has been requested by the receipt of a right-of-entry agreement. He conducted progress meetings with contractors and reviews daily schedules and progress reports; managed the assignment of field personnel for all aspects of slab removal and debris removal monitoring; coordinated progress meetings with St. Bernard Parish and its agents in all matters pertaining to the removal of slabs and all associated concrete; and reviewed and monitored all reports and data received and transmitted to St. Bernard Parish Government for accounting and progress reporting. Mr. Comeaux assisted with the coordination of LDEQ for compliance for the abatement of structures and slabs.

Louisiana Land Trust Demolition Program, Statewide, LA (CDBG PROJECT), 01/2009-06/2013

As Project Manager for demolition projects for the Louisiana Land Trust, Mr. Comeaux designed and managed the development of several databases utilized for the validation, tracking, accounting, and auditing of U.S. Department of Housing and Urban Development Community Development Block Grants (CDBG). As part of the auditing process, Mr. Comeaux worked with the Louisiana Legislative Auditors for validating work completed against contractor invoices. This has resulted in the processing of approximately \$80 million of CDBG funds and the demolition and restoration of approximately 8600 sites.

Mr. Comeaux coordinated and managed contracts involved in the demolition of structures and the removal of slabs and all associated concrete from sites purchased by the Road Home Corporation following Hurricanes Katrina and Rita throughout south Louisiana. He conducted progress meetings with contractors and reviewed daily schedules and progress reports; managed the assignment of field personnel for all aspects of demolition and debris removal monitoring; coordinated progress meetings with Louisiana Land Trust and its agents in all matters pertaining to structure demolition and the removal of slabs and all associated concrete; and reviewed and monitored all reports and data received and transmitted to the Louisiana Land Trust for accounting and progress reporting. Mr. Comeaux assisted with the coordination of LDEQ for compliance for the abatement of structures and slabs.

Program Management, Demolition and Debris Removal (Various Hurricanes) (2006 Contract), St. Bernard Parish, LA, 12/2006-06-2016

Mr. Comeaux coordinated the data collection, reporting, and validating processes involved in the demolition and debris removal in St. Bernard Parish following Hurricane Katrina. He coordinated the entry of all data from the load/haul tickets received into our database tracking and reporting system, validated all load/haul tickets and reported the data received to the applicant, FEMA, and all associated parties. He validated all invoices for work completed received from the contractors working the demolition and debris removal project in St. Bernard. Mr. Comeaux prepared reimbursement packets and documentation for the applicant for submission to the Louisiana Governor's Office of Homeland Security and Emergency Preparedness, reviewed and matched all reimbursement checks with invoices to properly track all monies paid to contractors, and coordinated with FEMA and State representatives for the preparation and processing of public assistance grants and reimbursements. Mr. Comeaux coordinated with the EPA and LDEQ for compliance with the EPA's plan for the abatement of residual oil deposits resulting from the spillage of oil in and throughout areas of St. Bernard Parish as a result of damage to one of the oil tanks at Murphy Oil Refinery during and following Hurricane Katrina. He ensured that the required abatement was completed and that the EPA certified that the removal was complete prior to the Parish issuing the property for demolition.

Demolition of Road Home Owned Properties, St. Bernard Parish, Louisiana (CDBG PROJECT), 2008-2009

As Project Manager for recovery projects throughout St. Bernard Parish, Louisiana following Hurricanes Katrina and Rita, Mr. Comeaux managed the grant for the demolition of homes owned by the Road Home Corporation

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throughout St. Bernard Parish. Approximately \$18 million of grant eligible work was completed and St. Bernard Parish received in federal grant funding to the parishes applying to reimburse money spent on recovery projects. Mr. Comeaux worked directly with the Louisiana Office of Community Development – Disaster Recovery Unit, to process environmental review records for each of the properties included in the program.

Disaster Removal and Management, (Hurricanes Katrina and Rita), Jefferson Parish, LA, 2005-2006

Mr. Comeaux coordinated the monitoring effort for debris removal in Jefferson Parish following Hurricanes Katrina and Rita from September 2005 until January 2006. He completed daily scheduling of crews assigned to debris removal, completed daily scheduling of monitors to supervise each debris removal crew, reported crew progress daily to the United States Army Corps of Engineers, and trained all monitors in the guidelines concerning debris removal procedures according to the Federal Emergency Management Agency.

Disaster Debris Removal Management, St. Charles Parish, LA, 2008

Mr. Comeaux coordinated the ground operations as well as all processes required for FEMA validation and reimbursement following Hurricanes Gustav and Ike. He coordinated the placement of debris monitors to monitor contractor operations in the area of debris removal. Mr. Comeaux coordinated the collection of all data required to guarantee proper FEMA reimbursement for the work, held regular meetings with representatives of FEMA, GOHSEP, the Parish, and the contractor representatives to get the work completed in the shortest, most cost-effective manner, and met with local, state, and federal officials in order to get project worksheets written to guarantee proper accounting and funding of debris removal projects.

Technical Assistance for Floodplain Management, Community Rating System, and Hazard Mitigation Related Services, (Project No. 0352), Jefferson Parish, LA, 01/2017-06/2020

Mr. Comeaux managed the 2016 Technical Assistance services contract with the Jefferson Parish Department of Floodplain Management and Hazard Mitigation. He worked with local officials to assist with Education and Outreach projects, activities to assist with meeting CRS points, edits and updates to flood maps, analysis of NFIP policies, and the planning process for the Parish's multi-jurisdictional Hazard Mitigation Plan.

In preparation for the Parish's CRS visit, Mr. Comeaux coordinated the review of Elevation Certificates, flood zone determination letters, preparation of required maps and table, and the review of various sections of the CRS manual to evaluate the Parish's compliance with meeting the requirements. As part of the Parish's Hazard Mitigation Plan update, Mr. Comeaux coordinated the evaluation of critical facilities, the preparation of the Hazard Mitigation Plan Advisory Committee, the revision and development of hazard profiles, and the development of draft resolutions to be enacted by the various jurisdictions.

To assist the Parish with meeting its educational and outreach requirements in accordance with its Program for Public Information, Mr. Comeaux coordinated the design and publication of various public information media, including videos, brochures, websites, and vehicle decals and billboards.

Mr. Comeaux also assisted with the preparation and review of materials for the public meetings as required for the Hazard Mitigation Plan update. Mr. Comeaux attended several of the meetings while coordinating the activities with the responsible parties of the BBEC team.

Program Management 2014 Hazard Mitigation Assistance Grant Funding, Jefferson Parish, Louisiana (HMGP PROJECT), 2015-2019

Mr. Comeaux managed the 2014 Hazard Mitigation Assistance Grant for home elevation and reconstruction for Jefferson Parish. In his role as Project Manager, Mr. Comeaux planned and prepared for grant kickoff meetings hosted by Jefferson Parish. He worked with homeowners preparing grant required paperwork, contracts, and all other documentation required for grant application. Additionally, Mr. Comeaux worked closely with parish officials to prepare program guidance, forms, and processes to guarantee proper accounting and funding of home elevation and reconstruction project.

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As Project Manager for elevation and reconstruction projects for Jefferson Parish, Mr. Comeaux coordinates activities between homeowners, contractors, construction management firm, and the parish. As part of the coordination process, Mr. Comeaux is responsible for reviewing contracts for grant compliance, preparing cost reasonable analysis for the work proposed, and applying for reimbursement for the funds allocated to each project. These projects resulted in approximately \$12.6 million in federal grant funding to the parish in reimbursements.

Mr. Comeaux has been directly involved in the management of the following projects:

- Jefferson Parish, FY14, FMA Elevations\$3,121,877.50
- Jefferson Parish, FY14, FMA Elevations\$3,698,327.00
- Jefferson Parish, FY14, FMA Non-Residential Elevation..... \$928,220.00
- Jefferson Parish, FY14, PDM Wind Retrofit Project.....\$3,757,904.00
- Jefferson Parish, FY14, FMA Reconstruction.....\$1,051,822.00

Debris Removal Monitoring, (Hurricane Isaac), St. Charles Parish, LA, 2012

Mr. Comeaux managed the Disaster Debris Removal project from its inception to completion following Hurricane Isaac in 2012. In his role as Project Manager, Mr. Comeaux coordinated with Federal, State and local agencies and their representatives including FEMA, GOHSEP, Louisiana Department of Environmental Quality, and the Parish's own Grant Manager and Department of Public Works and Wastewater. In this role, he secured permitting for several Debris Management Sites (DMS), coordinated the procurement of contracts for landfill disposal, conducted pre-construction and daily progress meetings, prepared weekly status reports, and reported to various government agencies including the Parish Council. As Project Manager, Mr. Comeaux worked diligently to keep the Parish informed of Project Costs, local cost share equivalents, and contractor progress and performance.

FEMA Hazard Mitigation Assistance Consultant (Project No. 2130-02035), City of New Orleans, LA, 08/2017-Present

Mr. Comeaux is currently the project manager for the City of New Orleans hazard mitigation assistance grants managed by the Office of Hazard Mitigation. Mr. Comeaux works with the City of New Orleans to prepare and submit applications for funding to FEMA's Hazard Mitigation Assistance (HMA) Programs, including but not limited to the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) Grant Program, State Generator Program, and the Pre-Disaster Mitigation (PDM) Grant program. It is also the responsibility of Mr. Comeaux to implement the HMGP program for the City. Mr. Comeaux has also been involved in the preparation and review of Benefit Costs Analysis reports for Green Infrastructure projects for the City of New Orleans, including the Mirabeau Gardens Green Infrastructure, the Broadmoor Drainage Improvements project and the City Park Green Infrastructure projects. In this role, Mr. Comeaux has managed the collection of data necessary to calculate the benefit cost ratio and assisted in the preparation of the Benefit Costs Analysis and report for FEMA review. Mr. Comeaux has directly been involved in the approval and/or management of the following projects:

- FY22 FMA Swift Current SRL Structure Elevation..... \$834,258.00
- FY22 FMA Swift Current SRL Structure Elevation.....\$3,142,140.00
- FY22 FMA Swift Current SRL Structure Elevation..... \$607,059.00
- FY22 FMA Swift Current SRL Structure Elevation.....\$2,536,585.00
- FY21 FMA SRL Structure Elevation\$10,730,860.00
- FY21 FMA SRL/RL Structure Elevation.....\$11,684,737.00
- FY21 FMA RL Reconstruction..... \$205,835.00
- FY20 FMA SRL Structure Elevation\$14,200,582.00
- FY20 FMA SRL Structure Reconstruction \$475,151.00
- FY19 FMA Residential Historic Elevation.....\$8,438,022.00
- FY19 FMA Residential Non-Historic Elevation\$6,308,246.00

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• FY18 1786 Statewide Generator Application.....	\$1,131,195.00
• FY18 FMA Residential Historic Elevation.....	\$4,227,236.00
• FY18 FMA Residential Non-Historic Elevation	\$4,172,098.39
• FY18 FMA Non-Residential Elevation	\$337,150.00
• FY18 SRL-PJ-06-LA-2012-009	\$1,792,928.00
• FY17 FMA Elevation (52 properties)	\$12,451,579.52
• FY 17 Multi-Jurisdictional Hazard Mitigation Plan Project.....	\$345,150.00
• FY 2013 FMA Elevation (36 properties)	\$7,410,818.00
• 1603/1607 HMGP (8 grant applications, 50+ properties).....	\$21,349,250.00
• 1607 HMGP Mirabeau Gardens Stormwater Management and Flood Mitigation BCA	\$23,469,698.00
• 1603 HMGP Broadmoor Stormwater Drainage BCA	\$55,666,026.00
• 1603 HMGP City Park/Lakeview Drainage Project BCA.....	\$2,316,000.00
• 1603 HMGP St. Roch Drainage Project BCA	\$7,500,000.00

Pre-Monitoring of Emergency Storm Debris Removal, Debris Management Plan, Greater Lafourche Port Commission, LA, 8/2018-05/2019

Mr. Comeaux oversaw the development of a comprehensive Debris Management Plan based on the below listed contents which met FEMA's general criteria for a debris management plan. The plan was successfully completed in May 2019 and ultimately approved by FEMA.

- Debris management overview
- Incidents and assumptions
- Debris collection and removal plan
- Debris removal from private property
- Public Information
- Health and safety requirements
- Environmental considerations and other regulatory requirements
- Temporary debris management sites and disposal locations
- Force account or contracted resources and procurement
- Monitoring of debris operations

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
John J. Housey, Jr., P.E. Project Engineer
Project Assignment:
Project Engineer / Project Development
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
11
Education: Degree(s)/Year/Specialization:
M.S. / 1965 / Structural Engineering B.S. / 1964 / Civil Engineering
Active registration: Year first registered/discipline:
1966 / Civil
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Housey has been working as an engineer in the public works industry for over 55 years. His experience includes bridges, buildings, roadways, and utility (water, sewer, and drainage) construction. He has substantial experience in project management, steel building detailing, bridges, barges and parts for offshore platforms. As a steel fabricator, Mr. Housey oversaw the fabrication of steel buildings, steel bridges (stationary and movable), barges, various parts of offshore platforms including girders, piling and legs, floor and wall framing, various parts of ships including bulkheads and framing members. Over the past 55 years, he has been responsible for the design of crane runways, spreader bars, lifting frames, and hydraulic jacking of heavy structures and barges.</p> <p>Mr. Housey managed the construction of over \$100 million in asphaltic concrete (AC) and Portland cement concrete (PCC) roadways funded by FEMA Public Assistance Grants. He has intimate knowledge in how various site conditions affect the construction and performance of the roadways, as well as how to maintain the necessary documentation to comply with the funding federal programs.</p> <p>Mr. Housey is a past Board Member and President of the Southern Association of Steel Fabrication. He served as a member on AISC committee regarding quality control. As a member and past Chairman of the ASCE/SEI Structures Committee in New Orleans for several years, he is familiar with the design of bridges, buildings and residential structures. He is familiar with fabrication specifications of API, AWS, AREA, AISC and ABS.</p> <p>Projects with detailed descriptions of work are provided below:</p>

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COASTAL PROTECTION / RESTORATION

Lower 45 Evacuation Route Basin, Lafitte Tidal Protection, Lafitte Area Independent District, LA, 05/2018-Present

As Project Manager, Mr. Housey is providing design alignment and earthen levee.

Repair of Venice Marina, Plaquemines Parish, LA, 2013-2015

Mr. Housey designed the Venice Marina project located in Plaquemines Parish in Venice, Louisiana. The project consisted of repairs to the damages of the Venice Marina caused by Hurricane Isaac.

Repair of Buras Marina, Plaquemines Parish, LA, 2013-2015

Mr. Housey designed the Buras Marina project located in Plaquemines Parish in Buras, Louisiana. The project consists of repairs of the damages to the Buras Marina caused by Hurricane Isaac.

DRAINAGE

Widening / Stabilization of Congressman Hebert, Creely, and Bluebird Canals, St. Bernard Parish, LA, 01/2015-Present

The project includes increasing the capacity and improving the stability of Congressman Hebert, Creely, and Bluebird Canals, that consists of 11,600 linear feet of open canal and culverts ranging from 4-feet bottom width to 16-feet bottom width channels. Mr. Housey coordinated with St. Bernard Parish, Lake Borgne Basin Levee District, and the Louisiana Department of Transportation and Development to obtain information regarding the existing drainage plan. BBEC established the design cross sections for the channels, which included concrete u-channels, concrete box culverts, and round and arched pipe, and concrete lined trapezoidal sections, depending on the availability of land and other conditions. Mr. Housey is designing 2,500 linear feet of large diameter reinforced concrete pipe box culverts, and U-channels for the project.

Design of Access Ways and Ladders at Drainage Pump Stations; Project No. 2014-022-DR, Jefferson Parish, LA, 11/2014-11/2019

Mr. Housey prepared cost estimates and designed ladders, stairs, and elevated walkways in 16 drainage pump stations to connect elevated structures and allow personnel to access the top of structures within Jefferson Parish. Design included analysis and details to retrofit new items to existing structures. The projects included the design of access ways and ladders at various drainage pump stations on the Eastbank and Westbank of Jefferson Parish identified as follows: Project I: Bonnabel, Elmwood, Estelle No. 1, Estelle No. 2, Hero, Lake Cataouche No. 2 and Westminster. Project II: Suburban, Duncan and Planters. Project III: Parish Line, Ames, Bayou Segnette, Mount Kennedy, Westwego No. 2 and Whitney-Barataria. Mr. Housey performed Design services for Projects II and III and Design, Bidding, Construction Management, Resident Inspection and As-built services for Project I.

Project Worksheet 20824 – Storm Drains, Jean Lafitte Parkway Drainage Line Repairs/Replacement, St. Bernard Parish, LA, 06/2014-11/2019

Mr. Housey prepared the damage assessment to adjacent existing roadway.

CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 10/2020-Present

Mr. Housey assisted in the design of the Cofferdam structure to resist the jacking loads required to jack & bore the culvert pipes under the railroad.

ROADWAY AND DRAINAGE

Lakefront Pedestrian Path (Suburban Canal to Causeway), State Project No. H011780, JP Project No. 2015-010-RB, Jefferson Parish, LA, 05/2020-Present

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Mr. Housey reviews test reports for asphalt binder with DOTD and Barriere Construction for approval, verifies all quantities with Inspector's daily reports, resolves asphalt quantities based on drawings, truck deliveries and DOTD specifications, prepares final change order to resolve actual quantities for payment, and prepares closeout documents. Mr. Housey also provided guidance and oversight to the resident inspector.

RR176 – St. Roch Group North Group A (PMOI), City of New Orleans, LA, 10/2019-Present

As part of BBEC design team for this FEMA PA funded project, Mr. Housey met with DPW representatives and surveyed damage to existing streets, reviewed and designed repairs to existing streets, including roadway profiles and drainage requirements.

RR177 – St. Roch Group North Group B (FRC), City of New Orleans, LA, 11/2019-Present

As part of BBEC design team for this FEMA PA funded project, Mr. Housey met with DPW representatives and surveyed damage to existing streets, reviewed and designed repairs to existing streets, including roadway profiles and drainage requirements.

RR178 – St. Roch Group North Group C (FRC), City of New Orleans, LA, 11/2019-Present

As part of BBEC design team for this FEMA PA funded project, Mr. Housey met with DPW representatives and surveyed damage to existing streets, reviewed and designed repairs to existing streets, including roadway profiles and drainage requirements.

Woodmere Boulevard Panel Replacement, JP Project No. 2017-061-RBP, State Project No. H012884.6, Jefferson Parish, LA, 08/2019-Present

Mr. Housey reviewed the contract documents from the LADOTD and discovered inconsistencies in the plans and quantities. He laid out street where work was required, supervised CAD drawing preparation and revised required quantities. He is preparing change orders for final quantities and closeout.

Cleary Improvements (Veterans Blvd. to West Esplanade Ave.) (Council District 5), Jefferson Parish, LA, 11/2017-Present

Mr. Housey supervised and reviewed CAD drawings of waterlines as requested by the Parish.

Read Blvd. East Group C, Capital Improvement Program, Project No. 2016-RR146 (PW No. 21032), City of New Orleans, LA, 03/2017-Present

As Project Manager, Mr. Housey has designed requirements to remove damage to existing streets and replace with new concrete streets and proper drainage profiles. He is also providing Contract Administration on this project. This involves overseeing the resident inspector and reviewing inspection reports, approval of construction materials, conducting bi-weekly progress meeting, approving construction invoices and keeping the client informed of construction progress, issues and other items. The CCTV Inspection of the existing drainage lines revealed the need for multiple repairs to existing drainage lines. This has required evaluation of method of repair and associated costs.

Mr. Housey managed the resident inspection services, including providing guidance and oversight to the resident inspector and coordinating with the City to ensure contract quantities were tracked timely and accurately.

Engineering Services for the Four-Year Road Maintenance Program, St. Charles Parish, LA, 01/2019-09/2020

Mr. Housey was project engineer for the construction of asphalt patches and mill/overlay on 12 streets in the Parish. The work consisted of 20,000 square yards of mill and overlay work, 1200 tons of full depth asphalt pavement patching, and related traffic control and connections to existing driveways. Mr. Housey was responsible for all construction administration and resident inspection activities, including project start-up, coordination with Parish and testing lab, shop drawing reviews, contractor pay estimates, change orders, complaint and conflict resolution, acceptance, and contract closeout. Mr. Housey also provided guidance and oversight to the resident

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inspector.

Task Order	# of Streets	Mill Overlay	and Full Depth Asphalt Pavement Patching
2019	12	20,000	1,200
2018	19	18,000	900
Total	31	38,000	2,100

Hurricane Katrina Roadway Restoration, St. Bernard Parish, LA, 05/2011-08/2017

Mr. Housey was BBEC's on-site engineer who provided Construction Administration services and Supervised Resident Inspectors of this FEMA PA funded project for over \$100 Million in roadway and drainage repair for 436 streets. Mr. Housey developed plans and construction cost estimates as well as managed the construction of facility repairs. He reviewed contractor submittals for conformity, resolved construction issues and led field progress meetings. Mr. Housey coordinated with the Contractor, Parish, and inspectors to troubleshoot issues in the field, resolved neighbor complaints, interpreted design specs to maintain the quality and standards of the work, and ensured that the work was satisfactorily completed. Mr. Housey reviewed all test reports for conformity to specifications, performed substantial and final completion walk-throughs for acceptance, reviewed as-builts for work completed, and reviewed contractor's monthly invoices and quantities. The project lasted 11 years and consisted of up to 18 construction inspectors at one time.

Mid-City Street Improvements, New Orleans, LA, 11/2012-11/2016

Mr. Housey reviewed and updated drawings based on client comments. He oversaw the revising of the CAD drawings to ensure conformance with project requirements. He maintained the tracking system of various bid items at each location with updates and totals as needed.

Gentilly Woods Street Improvements, New Orleans, LA, 01/2013-07/2016

Mr. Housey reviewed and updated drawings based on client comments. He oversaw the revising of the CAD drawings to ensure conformance with project requirements. He maintained the tracking system of various bid items at each location with updates and totals as needed.

SEWERAGE TREATMENT

Acadiana Water and Sewer, Lafayette, LA., 01/2021-Present

Mr. Housey designed the required structural repairs due to corrosion including structural steel repairs to the tanks and frame, painting of existing steel, provision of access stairs, walkways, and safety rails.

WATER PRODUCTION AND TREATMENT SYSTEMS

Eden Isles Subdivision Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA, 12/2020-Present

Mr. Housey assisted with the design of the elevated chemical building and secured the necessary permits from St. Tammany Parish, The Louisiana Department of Health, and the Louisiana Fire Marshal.

The Meadows and Belair Subdivisions Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA, 12/2020-Present

Mr. Housey secured the necessary permits from the Louisiana Department of Health and St. Tammany Parish.

H2O Water Projects, St. Tammany Parish, LA., 12/2020-Present

Mr. Housey obtained various permits for Magnolia Water Company for the Disinfection Project, the Flushing Project and the Water Line Repair Project.

TEC Professional Services Questionnaire

East Bank Water Treatment Plant Improvements, Jefferson Parish, LA, 12/2016-Present

As Project Manager, Mr. Housey supervises and coordinates drainage and process piping for both the Laboratory and the P4 Plant. He attends progress design meetings with other disciplines and field visits as required to locate existing utilities and prepares specifications and required design calculations. Design includes calculations for pressure piping flow, thrusts and supports, also drainage requirements and system design.

HAZARD MITIGATION GRANT PROGRAM

Private Residential Structure Elevation Project, Statewide (HMGP Project), 10/2012-02/2014

The project included performing plan review for grant compliance and some technical aspects of the elevation of residential structures throughout south Louisiana. The project also includes performing periodic inspections of the construction work to verify compliance with the project plans. Mr. Housey was responsible for providing professional engineering, program management, construction monitoring, observation of construction methods, code enforcement compliance, and general monitoring technical assistance services in association with construction contractors elevating and/or reconstructing residential structures for eligible construction activities through the Hazard Mitigation Grant Program (HMGP).

GRANT MANAGEMENT

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 04/2022-Present

Mr. Housey directed field inspectors to locate, photograph and measure damages to streets and drainage utilities in Lafitte. He created files and spreadsheets of damage assessments at each location and created SIR spreadsheets and CEF Repair Estimates for streets and drainage in Lafitte for this project which includes program management services which assists Jefferson Parish with the review and implementation of procurement policies, ensuring that all potential emergency contracts comply with federal requirements and guidelines set forth in the Public Assistance Program.

PREVIOUS EMPLOYMENT

Orleans Materials & Equipment Company, Inc., City of New Orleans, LA, 1967-2011

As Project manager, Mr. Housey was responsible for interpreting plans and specifications, interacting with owner, engineer and contractor, resolving discrepancies, ensuring quality of construction and maintaining construction schedule. Many projects included modifications to existing structures for increased load capacity, replacement of existing structural members, connections or other requirements. Requirements for pumping stations usually included all steel requirements including columns, crane runways, bar screens and floor grating.

Sample projects completed by Mr. Housey include:

Bulkheads

- H-Piling for T-Wall at the Industrial Canal (Cajun Contractors)
- Sheet Piling for Gate at Bayou Bienvenue (Manson Construction Company)
- Sheet Piling for Louisiana Citrus at Venice, LA

Bridges

- **Sunshine Bridge, St. James Parish, LA**

Removal and replacement of concrete and steel bridge decking across the entire span of Sunshine Bridge including all field measurements required to replace steel gussets and floor beams.

- **Bayou Milhome Swing Span Bridge, St. Martin Parish, LA**

Complete new bridge structure including floor beams, grating, pivot girder, and related items.

TEC Professional Services Questionnaire

- **Bayou Lafourche Lift Span Bridge, Larose, LA**

Complete new bridge structure including floor beams, grading, lift girders, and related items.

- **Intracoastal Waterway Bascule Bridge**

Complete steel framing including floor beams, grating trunnion support girders and related items.

Pumping Stations

- **Hero Canal Pumping Station**

All structural steel, walkway grating, bar screens, and related items.

- **Citrus Pumping Station**

All structural steel, walkway grating, bar screens, and related items.

- **Michoud Pumping Station**

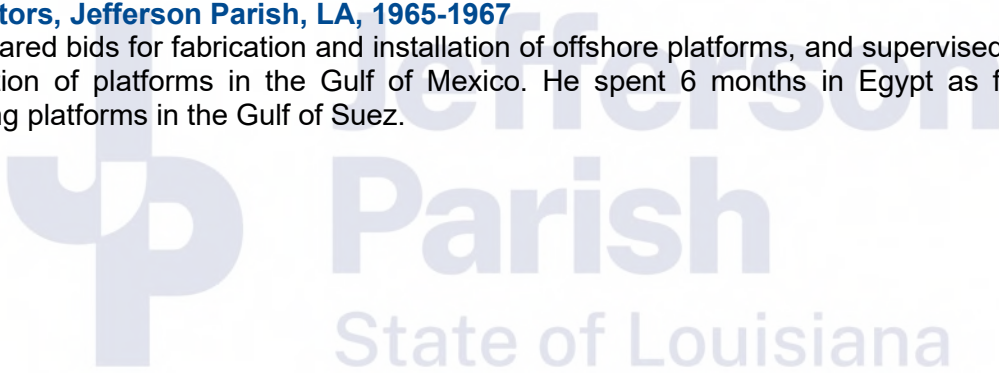
All structural steel, walkway grating, bar screens, and related items.

- **Pumping Station No. 6**


All structural steel, walkway grating, bar screens, and related items.

Ingram Contractors, Jefferson Parish, LA, 1965-1967

Mr. Housey prepared bids for fabrication and installation of offshore platforms, and supervised yard fabrication and offshore installation of platforms in the Gulf of Mexico. He spent 6 months in Egypt as field engineer/project manager installing platforms in the Gulf of Suez.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Ethan Jones, E.I. Engineer Intern
Project Assignment:
Pre-Professional
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
.5
Education: Degree(s)/Year/Specialization:
B.S. / 2022 / Civil Engineering
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Jones is a recent graduate from Louisiana State University where he obtained a Civil Engineering degree in May of 2022 and became an Engineer Intern in June of 2022. He is currently working on projects for Wastewater Treatment where he is gathering measurements and doing calculations to find velocity through pipes for the selection of pumps. Mr. Jones has also done Grant Management where has visited sites to gather measurements for sketches and worked on volumetric cut and fill calculations for clearing residential canals in Lafitte. Mr. Jones has also worked on Roadway and Drainage projects where he has assisted with cost estimates for clients.</p>
DRAINAGE
CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 06/2022 – Present
Mr. Jones worked on completing the cost estimate and making additions to the specifications for this project which includes the construction of several new drainage culverts crossing and/or adjacent to the CN railroad in Destrehan, St. Charles Parish, LA. Mr. Jones also assisted in preparing the CN Railroad permitting documents for the new drainage improvements.
WASTEWATER TREATMENT
Water & Wastewater Utilities, Multiple Parishes, LA, 06/2022-Present
Mr. Jones provided technical and field assistance for this project, which includes investigation, evaluation, and assessment of existing wastewater systems to be procured by the client. Mr. Jones assisted in the design for

TEC Professional Services Questionnaire

improvements to be made to the sites. Mr. Jones performed site investigations of individual treatment facilities, collection, and distribution systems to assess structural conditions, equipment operation, evidence of process issues, and overall general operational conditions.

ROADWAY AND DRAINAGE

RR176 – St. Roch Group North Group A (PMOI), City of New Orleans, LA, 06/2022-Present

Mr. Jones assisted in the creation of cost estimates to assure that the quantities that were on the submittals matched those of the cost estimate for FEMA-eligible road rehabilitation work as part of this project. This project includes assisting the City of New Orleans in assessment of the damage along the streets contained in this project, and providing design services for FEMA-eligible street repairs in the area south of I-610, north of the Florida Ave. canal, east of N. Broad St., and west of Elysian Fields Ave. The scope of work for each street varies and includes the following types of work: replacement of sidewalks and driveways, incidental road repairs determined by FEMA, and full replacement of roadway section and subsurface sewer, water, and/or drainage.

RR178 – St. Roch Group North Group C (FRC), City of New Orleans, LA, 06/2022-Present

Mr. Jones assisted in the creation of cost estimates to assure that the quantities that were on the submittals matched those of the cost estimate for FEMA-eligible road rehabilitation work as part of this project. This project includes assisting the City of New Orleans in assessment of the damage along the streets contained in this project, and providing design services for FEMA-eligible street repairs in the area south of I-610, north of the Florida Ave. canal, east of N. Broad St., and west of Elysian Fields Ave. The scope of work for each street varies and includes the following types of work: replacement of sidewalks and driveways, incidental road repairs determined by FEMA, and full replacement of roadway section and subsurface sewer, water, and/or drainage.

GRANT MANAGEMENT

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 06/2022-Present

Mr. Jones calculated dredge volume estimates for residential canals in Barataria near Jean Lafitte, LA by using Civil 3D and Excel. This project includes the processing of FEMA reimbursements, based on federal and state requirements and development of closeout documentation for the Parish of Jefferson. In addition to this Mr. Jones completed FEMA's Category G files and photo forms for Jefferson Parish Bus Stops.

FEMA 2021 Hazard Mitigation Consultant, City of New Orleans, LA, 07/2022 – Present


Mr. Jones visited sites and developed sketches based off the measurements taken in the field. Upon returning to the office, he redrew the sketches in an orderly manner to be given to the CAD Technician for a final drawing. This project includes the preparation and submittal of applications for funding to FEMA's Hazard Mitigation Assistance (HMA) Programs, including but not limited to the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA), the Pre-Disaster Mitigation Grant (PDM) Program, and the Building Resilient Infrastructure and Communities (BRIC) Grant Program on behalf of eligible residential National Flood Insurance program (NFIP) policyholders in Orleans Parish and the City of New Orleans and to manage and implement said program for the City.

PREVIOUS EMPLOYMENT

GIS Engineering, LLC, Baton Rouge, LA, 05/2021 – 08/2021

As an Engineer Intern, Mr. Jones Gained experience using AutoCAD, Civil 3D and SACS, performed cost estimates for projects using LA DOTD's cost estimating tool, and used ArcGIS for mapping of projects to provide quality visuals for clients.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Pete Foret Computer Aided Drafting
Project Assignment:
Drafting / CAD
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
2
Education: Degree(s)/Year/Specialization:
B.S. / 1995 / Business Administration with a Computer Science Option and Management Minor
Active registration: Year first registered/discipline:
4D Parish
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Foret is a multi-discipline AutoCAD drafter and designer with experience in the Civil, Structural, Architectural, Electrical and GIS/Mapping fields. He has a combined 32 years of experience generating alignments, plan and profile sheets, cross sections, contour maps, structural and architectural plans and details and electrical one-line diagrams. He has been the drafting coordinator for multiple firms and has been responsible for developing drafting standards for a consistent and quality drawing set.</p> <p>Projects with detailed descriptions of work are provided below:</p> <p>DRAINAGE</p> <p>Gloria Drive Pump Station, Project No. 20-2022A, Lafitte Area Independent Levee District Drainage, Town of Jean Lafitte, LA, 02/2021-Present</p> <p>Mr. Foret set up the survey and generated a preliminary site plan for a drainage pump station.</p> <p>CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 10/2020-Present</p> <p>Mr. Foret set up the survey reference file with a baseline supplied by the railroad and created site plans for 6 proposed construction sites including a plan/profile sheet for a new 425' long 60" drainpipe connecting two sites. He also generated multiple cross sections through the 6 construction sites as well as other details.</p>

TEC Professional Services Questionnaire

Craig Avenue Drainage Improvements, Public Works Project No. 2019-022-DR, Jefferson Parish, LA, 10/2020-Present

Mr. Foret updated the plan/profile sheets with a new proposed roadway gradeline.

ROADWAY AND DRAINAGE

Ames Boulevard Rehabilitation, West Bank Expressway to Happy Street, (Public Works Project No. 2013-033-RB) (DOTD No. H.011797), Jefferson Parish, LA., 07/2020-Present

Mr. Foret was involved with the 98% and 100% Final submittal of roadway design plans to the LADOTD. This involved updating the project border on all sheets to the current LADOTD border while maintaining LADOTD standards. The drawing set included a standard LADOTD title sheet as well as plan sheets, typical sections, cross sections, core boring sheets, LADOTD and Jefferson parish special detail sheets and associated summary and quantities table sheets.

RR176 – St. Roch Group North Group A (PMOI), City of New Orleans, LA., 07/2020-Present

Mr. Foret generated the 100% submittal drawings on this project. This drawing submittal contained plan and profile sheets that included proposed centerline and gutter line profiles as well as existing centerline, gutter line, sidewalk, right of way and utilities grades and profiles in the project area. Mr. Foret was also responsible for ensuring that the drawing set conformed to City of New Orleans Department of Public Works drawing standards.

RR177 – St. Roch Group North Group B (FRC), City of New Orleans, LA., 07/2020-Present

Mr. Foret generated the 100% submittal drawings on this project. This drawing submittal contained plan and profile sheets that included proposed centerline and gutter line profiles as well as existing centerline, gutter line, sidewalk, right of way and utilities grades and profiles in the project area. He also generated cross sections based on project guidelines. Mr. Foret was also responsible for ensuring that the drawing set conformed to City of New Orleans Department of Public Works drawing standards.

RR178 – St. Roch Group North Group C (FRC), City of New Orleans, LA., 07/2020-Present

Mr. Foret generated the 100% submittal drawings on this project. This drawing submittal contained plan and profile sheets that included proposed centerline and gutter line profiles as well as existing centerline, gutter line, sidewalk, right of way and utilities grades and profiles in the project area. He also generated cross sections based on project guidelines. Mr. Foret was also responsible for ensuring that the drawing set conformed to City of New Orleans Department of Public Works drawing standards.

WATER PRODUCTION AND TREATMENT SYSTEMS

H2O Water Projects, St. Tammany Parish, LA, 09/2020-Present

Mr. Foret did some minor markups and checked for drafting standards/consistency.

Acadiana Water and Sewer, Lafayette, LA, 08/2020-Present

Mr. Foret created figures for the Engineer reports for the water and wastewater systems for Belleville, Garden Heights, Mark Ridge and Village Quest subdivisions. He drafted the site plan and profile for the Belleville water system. He also generated the site plans, mechanical plans and structural plans for the repairs and improvements to the Belleville, Garden Heights and Mark Ridge wastewater treatment plants.

East Bank Water Treatment Plant Improvements, Jefferson Parish, LA., 07/2020-Present

Mr. Foret was responsible for plan preparation following established project standards. Plans included a site layout for the routing of new chemical feed lines over an existing survey and avoiding existing utilities. Drawings also included details necessary for the proper routing and installation of the new feed lines.

TEC Professional Services Questionnaire

Southwood Ridge, Tangipahoa Parish, LA, 08/2020-Present

Mr. Foret created figures for Engineer's report.

Artesian, St. Tammany Parish, LA, 08/2020-Present

Mr. Foret created figures for Engineer's report.

Coast Water Projects, St. Tammany Parish, LA, 07/2020-Present

Mr. Foret created the site plans and demolition plans as well as the plans, sections, structural foundation details and typical details for the proposed chemical feed buildings and the details for the chemical feed system itself at the Eden Isles, Meadows and Belair disinfection sites. He coordinated with our electrical sub for the drafting of the electrical one line and riser diagrams as well as his equipment layouts on the site plans for the three sites. Mr. Foret drafted the plan/profile sheet and cross sections for the proposed new waterline crossing the marina bay as well as the standard details for the Eden Isles Water Main Repair.

GRANT MANAGEMENT

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 12/2021 - Present

Mr. Foret plotted the platform locations for the water line to Grand Isles in CAD using GIS coordinates. He also created exhibits of before, during and after Hurricane Ida aerial photographs to assist with determining debris to be removed.

FEMA Hazard Mitigation Assistance Consultant (Project No. 2130-02035), City of New Orleans, LA, 11/2021 - Present

Mr. Foret drafted site plans for the home elevation grant application. It involved saving an aerial image from Google Earth and tracing over it with the basic home floor plan dimensions obtained from the field.

Application Development and/or Project Management of FEMA HMA Grant Programs, Lafourche Parish, LA, 12/2021 - Present

Mr. Foret drafted site plans for the home elevation grant application. It involved saving an aerial image from Google Earth and tracing over it with the basic home floor plan dimensions obtained from the field.

Grant Management Services for Federal and State Grants, Lafitte Area Independent Levee District, LA, 04/2022 - Present

Mr. Foret traced the Lafitte existing and proposed levee layouts in CAD onto an aerial from Google Earth. He also created photo sheets from photos taken in the field with GIS coordinates embedded in them to be used for levee inspections.

Federal Emergency Management Agency Public Assistance Program Services, St. Charles Parish, LA, 12/2021 - Present

Mr. Foret drafted site plans for the home elevation grant application. It involved saving an aerial image from Google Earth and tracing over it with the basic home floor plan dimensions obtained from the field.

PREVIOUS EMPLOYMENT

Perrin & Carter Inc., Metairie, LA., 08/2005-03/2020

Mr. Foret was involved in the design/drafting of multi-discipline civil, structural and architectural projects. While there, he worked on the design of roadway and bridge projects for the LADOTD and canal improvement projects for the Corps of Engineers. Over the years, Mr. Foret was involved in many different projects including civil site layout and parking lot design for commercial projects like the Trader Joe's shopping center and the In & Out Car Wash; both located on Veterans Boulevard and requiring Commercial Parkway Zone overlay compliance. Due to his prior experience, he was named project lead over the car wash project, where he coordinated the work load

TEC Professional Services Questionnaire

between engineers of different disciplines and the drafters. Projects also involved working closely with engineers and architects for the assembly of drawing packages for commercial buildings, schools, fire stations, gyms, parks, bridges and various other projects.

Stolt Offshore., New Orleans, LA., 03/2005-07/2005

Mr. Foret's job duties at Stolt Offshore involved the drafting of shop fabrication drawings for concrete barges used primarily in the oil and gas industry, using AutoCAD LT 2004, from sketches provided by the offsite design engineer. He was expected to learn the ACI standards to ensure design standards were met. Mr. Foret would also inspect the work done by their fabricators in the yard to ensure these design standards were carried out according to the drawings. While there, he was asked to standardize their drawing system to ensure a clear and unified look to their fabricators.

N-Y Associates (DOTD Projects), Metairie, LA., 12/2002-12/2004

Mr. Foret was hired by N-Y Associates to work on a study for the East-West corridor for the LADOTD. This project involved the widening of Airline Highway and the relocation of necessary utilities for an overhead expressway, as well as, a possible lightrail system between New Orleans and Baton Rouge. He then became the project lead for another LADOTD study to replace the Florida Avenue bridge over the Industrial Canal. This project involved generating multiple proposed alignments for DOTD review. As the project lead, he was responsible for coordinating the drafting between multiple engineers, technicians and drafters.

While at N-Y, Mr. Foret also worked on various other projects, including LADOTD plan/profile roadway projects, street resurfacing projects for the City of New Orleans, a new street grid through the Guste housing redevelopment and all necessary plan/profile sheets, a study to replace the outdated Causeway overpass over Airline Highway and various other street and drainage improvement and pump station projects.

General Electric, Harahan, LA., 11/1995-11/2002

At GE, Mr. Foret provided design/drafting services for their marine automation and propulsion systems using AutoCAD 13 and upgrading to AutoCAD 2000. This often involved updating engineering databases and using this data to generate one-line electrical diagrams of their PLC based automation systems. He would also be responsible for working with their fabrication shop to inspect the electrical equipment and cabinets to ensure that they met design criteria.

While at GE, Mr. Foret became their sole drafter and assumed the role of drafting coordinator, often coordinating work over various jobs, simultaneously, from multiple engineers. He also performed other job duties, such as, revising technical manuals to ensure their description of operation matched the design drawings. Mr. Foret became involved with the procurement, inventory and shipping/receiving of the materials used in the fabrication of their equipment. He was often called upon to organize engineering data and drawings for the engineers and various other duties, as needed.

Texaco, Inc., New Orleans, LA., 05/1990-11/1994

Mr. Foret's job duties at Texaco included the drafting of geologic structures and civil/GIS mapping using Microstation. This involved scanning large scale maps and inserting the raster image into the design file in order to digitize the data for digital manipulation.

While at Texaco, he became the systems administrator of their 40 Unix Workstation, Microstation based drafting department and provided systems support and maintenance. This involved routine maintenance, software updates, hardware repairs and upgrades, as well as, end user support and training. He would often develop drafting standards, as well as, organize existing drafting standards for user documentation which often led to his writing small applications to automate menial drafting duties. Because of his efforts, he was asked to support their onshore hand drafting department with additional Microstation training as they transitioned to computer drafting.

Finally, Mr. Foret was promoted to the IT department, where he provided telecommunications and network support

TEC Professional Services Questionnaire

for their 1,000 user, PC based Ethernet network throughout the building. This involved diagnosing connectivity issues by checking the networked routers and utilizing network sniffers to determine the cause. He was also used during the building rewiring project to punch down Cat5 Ethernet cables from the wall port to the 110 blocks located in the communications closet on each floor, following the network design, and verifying network connectivity through the trunk cables to the centrally located routers in the server room.



TEC Professional Services Questionnaire

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

PROJECT NO. 1

**Project Name,
Location and Owner's
contact information:**

Nature of Firm's Responsibility:

**Demolition and Program
Management,
Statewide, LA**

**Louisiana Land Trust
Michael Taylor
11100 Mead Rd.,
Suite 200
Baton Rouge, LA 70816
mtaylor@lalandtrust.us
(225) 395-0777**

The Road Home Corporation dba Louisiana Land Trust (LLT) is a non-profit organization chartered under the authority of Louisiana Revised Statute 40:600.63. LLT was charged with the acquisition, disposition, purchase, demolition, renovation, improvement, leasing, or expansion of housing stock, including but not limited to housing stock as described by the Road Home Program designed by the Louisiana Recovery Authority and funded by the U.S. Department of Housing and Urban Development's Community Development Block Grant (CDBG) Program.

BBEC was the primary sub-consultant to the Louisiana Land Trust for providing program management and oversight of LLT's demolition program and related activities undertaken in support of recovery, blight removal, property disposition, and redevelopment.

Program management services provided by BBEC included:

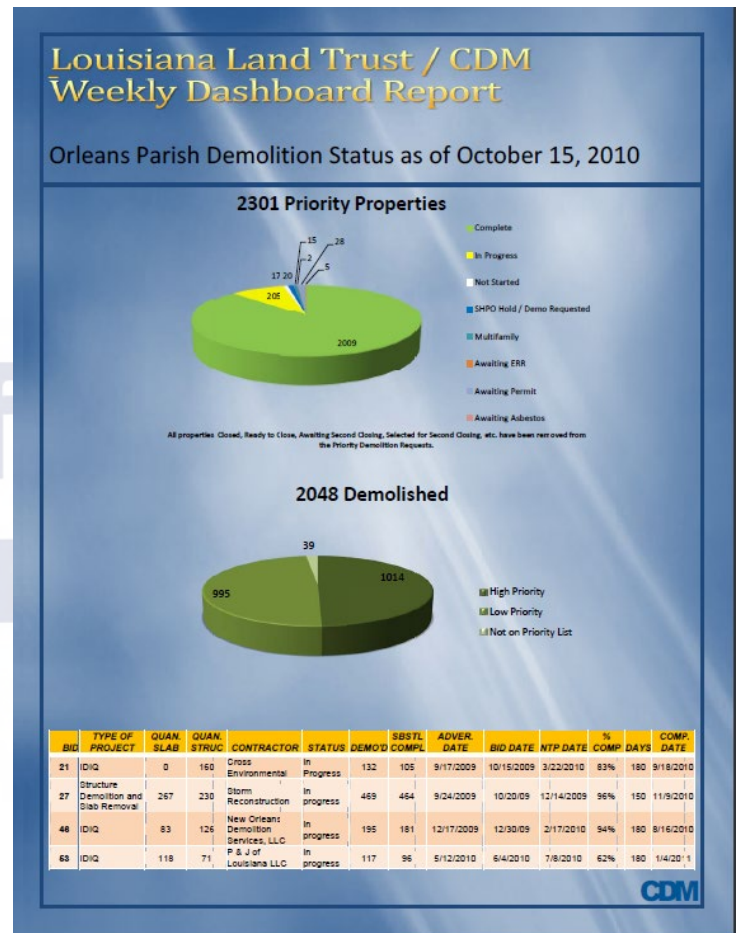
- Procurement of demolition contractors on behalf of LLT
- Oversight and monitoring of contractors' operations
- Coordination of environmental services
- Management of the related permit process

The total number of properties involved was approximately 8,700 residential properties owned by LLT throughout South Louisiana, with about 90% of them concentrated in the New Orleans metropolitan area. BBEC also assisted in the management of a separate program in St. Bernard Parish to remove slabs from properties where structure had previously been removed as part of Hurricane Katrina cleanup operations. Specific responsibilities of BBEC throughout this project included:

- Developing an operational plan that addresses quality control, fraud, waste, mismanagement, estimated costs of demolition and debris removal work, record-keeping, reporting, closeout with timelines for project completion.
- Developing a management information system to track each site until close out
- Reviewing each property and developing a scope of work for each site to remove all structures, foundations, drives, etc.
- Reviewing environmental clearances on each property

TEC Professional Services Questionnaire

- Completing bid documents
- Providing Resident Project Representation for all projects
- Negotiating, issuing and administering contracts for demolition, debris removal and site cleanup, as well as changes thereto
- Providing LLT with timely support services as needed related to the demolition program and to hurricane recovery, blight removal, and redevelopment efforts.



**Completion Date
(Actual or estimated):**

Estimated Cost:

Entire Project:

Work for which Firm was Responsible:

2016 (actual)

\$56.707.000

\$56.707.000

TEC Professional Services Questionnaire

PROJECT NO. 2	
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
<p>Demolition and Debris Removal, Demolition of Structures (Hurricanes Katrina and Rita), St. Bernard Parish, LA</p> <p>St. Bernard Parish Government Guy McInnis, Parish President 8201 W. Judge Perez Drive Chalmette, LA 70043 presidentmcinnis@sbpg.net (504) 278-4227</p>	<p>BBEC performed Program Management and Resident Inspection services to the Department of Public Works for demolition and debris removal projects following Hurricanes Katrina/Rita and Gustav/Ike. In managing and monitoring the removal activities, BBEC maintained up to 140 inspectors, supervisors, coordinators, engineers, and support staff whether employed by BBEC or its subcontractors. Professional services required and completed by BBEC included all administrative duties necessary to complete the following:</p> <ul style="list-style-type: none"> Monitor the removal of household hazard waste and white goods, evacuation of freon, sampling and testing for asbestos, and utility disconnects. Ensure the demolition of the structure(s) were completed properly and to the satisfaction of the contract and Parish. Assist the Parish with developing scope of services for projects for advertisement for professional services. Assist the Parish in review of agreements for professional services for each project and make recommendations for adjustments or acceptance. Develop specifications and prepare bid documents for maintenance projects. Review bids and/or make recommendations on the selection of maintenance contractors; and administer the projects through construction. Prepare design and construction schedules and enforce that the schedules are followed. Monitor and provide status reports to Administration for each design and construction project. Attend Public Meetings and prepare meeting records on each project. Assist Parish in resolving technical questions during design and construction and make recommendations. Review all requests for payments from outside consultants and contractors under the Program. Assist with the coordination of public utility relocations, adjustments, and other utility-related issues. Attend Council meetings when matters relating to the Program were discussed by the Council. <p>BBEC also performed supplemental services at the request of the Parish in the performance of this contract. Supplemental services performed included:</p> <ul style="list-style-type: none"> Preparation of Environmental Assessment documents, specifically Asbestos program management services. Coordinated with EPA and LDEQ for the compliance with EPA's plan for the

TEC Professional Services Questionnaire

abatement of residual oil deposits resulting from damage to one of the oil tanks at Murphy Oil Spill.

- Assisting the Parish in the preparation of grant applications where all or part of the work was financed by a Federal or State grant.
- Grant Administration.

This work resulted in the demolition of approximately 8,500 structures and the removal of 5.2 million CY of disaster-generated debris.



Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2016 (actual)	\$376.656.000	\$376.656.000


TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Program Management for Demolition and Debris Removal Projects, Asbestos Abatement, Phase I, (2006 Contract), St. Bernard Parish, LA</p> <p>St. Bernard Parish Government Guy McInnis, Parish President 8201 W. Judge Perez Drive Chalmette, LA 70043 presidentmcinnis@ sbpg.net (504) 278-4227</p>	<p>The project consisted of the completion of the abatement of 43 structures and 634 slabs. In managing the project, BBEC ensured the contractor followed all Louisiana Department of Environmental Quality (LDEQ) regulations associated with the removal of asbestos containing materials.</p> <p>BBEC coordinated with EPA and LDEQ for compliance with EPA's plan for the abatement of residual oil deposits resulting from damage to one of the oil tanks at Murphy Oil Spill.</p> <p>BBEC quantified asbestos materials for structures being prepared for demolition and for slabs once the demolition had been completed. Our staff prepared change orders, checked contractor invoicing for accuracy, reviewed all documentation and correspondence for project close-out and ensured that the data was submitted to the satisfaction of the client and FEMA guidelines.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2013 (actual)	\$2.100.000	\$2.100.000

TEC Professional Services Questionnaire

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Program Management for Demolition and Debris Removal Projects, Asbestos Abatement, Phase II, (2006 Contract), St. Bernard Parish, LA</p> <p>St. Bernard Parish Government Guy McInnis, Parish President 8201 W. Judge Perez Drive Chalmette, LA 70043 presidentmcinnis@ sbpg.net (504) 278-4227</p>	<p>The project consisted of the completion of the abatement of 131 structures and 1244 slabs. In managing the project, BBEC ensured the contractor followed all Louisiana Department of Environmental Quality (LDEQ) regulations associated with the removal of asbestos containing materials. (Phase I – 43 structures and 634 slabs)</p> <p>BBEC coordinated with EPA and LDEQ for compliance with EPA's plan for the abatement of residual oil deposits resulting from damage to one of the oil tanks at Murphy Oil Spill.</p> <p>BBEC quantified asbestos materials for structures being prepared for demolition and for slabs once the demolition had been completed. Our staff prepared change orders, checked contractor invoicing for accuracy, reviewed all documentation and correspondence for project close-out and ensured that the data was submitted to the satisfaction of the client and FEMA guidelines.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2013 (actual)	\$3,200,000	\$3,200,000

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>FEMA Hazard Mitigation Grant Village Square Site Clearance, Phases 1, 2 and 3, St. Bernard Parish, LA</p> <p>St. Bernard Parish Government Guy McInnis, Parish President 8201 W. Judge Perez Drive Chalmette, LA 70043 presidentmcinnis@ sbpg.net (504) 278-4227</p>	<p>BBEC managed the Village Square Site Clearance, Phases I, II and III, a project that consisted of the removal and recycling of concrete slab foundations and other pavement, removal of hazardous trees, clearing sites, fill and grade of sites to promote proper drainage. In preparation for concrete recycling, BBEC ensured that the contractors complied with all regulatory requirements for the disposal of concrete slab foundations and other pavement in a recycling facility. BBEC managed the project from scope development through reimbursement for the purpose of meeting all requirements of the FEMA Hazard Mitigation Grant Program. Those requirements included, but were not limited to: collecting and reporting the scope of disaster, scope of services to be covered, cost estimate based on cost reasonableness in accordance with the Code of Federal Regulations (44 CFR Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments). Subsequent coordination with the Governor's Office of Homeland Security secured the necessary funding allocated to this work.</p> <p>BBEC managed the project from scope development through reimbursement for the purpose of meeting all requirements of the FEMA Hazard Mitigation Grant Program for the abatement and removal of 123 building slabs and 3 structures (Phase I: 89 Slabs, Phase II: 31 Slabs, Phase III: 3 Slabs and 3 Structures). The project included specifying requirements of a SWPPP and overseeing the implementation of that plan.</p> <div style="text-align: center;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2015 (actual)	\$1.259.803	\$1.259.803

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PROJECT NO. 6						
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:					
<p>Northshore Living Shorelines, (Contract No.: 21-128), St. Tammany Parish, LA</p> <p>St. Tammany Parish Government Gina Hayes, Chief Administration Officer 21490 Koop Drive, Mandeville, LA 70471 (985) 898-2445</p>	<p>The scope is to evaluate the conditions of a 12-mile segment of the Lake Pontchartrain Shoreline along the North Shore and recommend living shoreline techniques including natural and artificial breakwater material to reduce shoreline erosion by dampening wave energy while encouraging reestablishment of habitat that was once present in the region. Activities within the project include surveying, geotechnical engineering, permitting, engineering and design, environmental compliance testing of sediments, dredging, living shoreline Demo construction, monitoring plan, and program oversight and management.</p>					
<p>Completion Date (Actual or estimated):</p>	<p style="text-align: center;">Estimated Cost:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; padding: 5px; text-align: center;">Entire Project:</th> <th style="width: 50%; padding: 5px; text-align: center;">Work for which Firm was Responsible:</th> </tr> </thead> <tbody> <tr> <td style="width: 50%; text-align: center; padding: 5px;">2022 (estimated)</td> <td style="width: 50%; text-align: center; padding: 5px;">\$342.755 (fee)</td> </tr> </tbody> </table>		Entire Project:	Work for which Firm was Responsible:	2022 (estimated)	\$342.755 (fee)
Entire Project:	Work for which Firm was Responsible:					
2022 (estimated)	\$342.755 (fee)					


TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Drainage Pump Station Fuel Storage Secondary Containment, Jefferson Parish, LA</p> <p>Jefferson Parish Government Mitchell Theriot, P.E., Director, Department of Drainage 1221 Elmwood Park Blvd., Suite 907 Jefferson, LA 70123 mtheriot@jeffparish.net (504) 736-6753</p>	<p>BBEC designed secondary containment systems to contain diesel fuel at 11 west bank drainage pump stations so that the fuel from the largest storage tank on the site would be retained in the event of a diesel fuel spill. BBEC developed details for containment systems such as concrete retaining walls for tanks farms stored on existing slabs, and lining systems for earthen containment ponds if the slab option did not provide sufficient volume. BBEC provided the details to the Drainage Department, who in-turn advertised the work for public bid as funding allowed and administered the work through construction.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2004 (actual)	\$250.000	\$50.000 (fee)

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PROJECT NO. 8						
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:					
<p>Technical Assistance for Floodplain Management, Community Rating System and Hazard Mitigation Related Services (Project No. 0352), Bucktown Marina Vision Plan Preparation, Jefferson Parish, LA,</p> <p>Jefferson Parish Government Maggie Talley, Director Department of Floodplain Management and Hazard Mitigation 1221 Elmwood Park Boulevard, Suite 310 Jefferson, LA 70123 mtalley@jeffparish.net (504) 736-6540</p>	<p>BBEC oversaw the preparation of the Vision Plan for the Bucktown Marina Harbor. The study started with an existing conditions assessment which included pre-work data collection including boundary and topographical survey, aerial photography, Bathymetric data, studies, reports and/or condition surveys of in-water facilities and other existing buildings and facilities found at the project site, studies and information on the quality and condition of site environmental habitat, regulations pertaining to local land use, environmental protection, watershed protections, storm water detention, and other related data, studies, reports, and mapping on internal and external roadways and traffic volumes, planned roadway improvements, design criteria and other related information, studies, reports, mapping and/or other engineering information on site infrastructure serving the site, potable water and wastewater plant capacities, utilities design criteria and other related data, and site ownership and easements. A project kick-off meeting was then held to confirm project communication chain of command, goals and objectives, project schedule and issues discussion, present early base maps and graphics for review, and complete initial inventory of project stakeholders. An existing conditions analysis was then done using the assembled data. Upon completion of the analysis, a market assessment was then prepared reviewing the Marina and other related marine activities. Upon completion of the market assessment, research began to determine the needs for Bucktown Marina and the Lakefront. Based on all of the research an Initial and then final Bucktown Marina Vision Plan was completed and submitted.</p>					
<p>Completion Date (Actual or estimated):</p>	<p style="text-align: center;">Estimated Cost:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%; padding: 5px; text-align: center;">Entire Project:</th> <th style="width: 50%; padding: 5px; text-align: center;">Work for which Firm was Responsible:</th> </tr> <tr> <td style="width: 50%; padding: 5px; text-align: center;">2018 (actual)</td> <td style="width: 50%; padding: 5px; text-align: center;">\$90.800 (fee)</td> </tr> </table>		Entire Project:	Work for which Firm was Responsible:	2018 (actual)	\$90.800 (fee)
Entire Project:	Work for which Firm was Responsible:					
2018 (actual)	\$90.800 (fee)					


TEC Professional Services Questionnaire

PROJECT NO. 9								
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:							
<p>Reggio Canal Flood and Erosion Protection (Contract No. 716-44-0012), St. Bernard Parish, LA</p> <p>Donald R. Bourgeois, Capital Projects Manager Department of Public Works 1125 E. St Bernard Hwy. Chalmette, LA 70043 dbourgeois@sbsp.net (504) 278-4250</p>	<p>The scope of BBEC's work was to provide full engineering services, including evaluation of alternatives, preliminary design, final design, bidding, construction administration, construction inspection, and as-built drawing services, for the construction of a flood and erosion control structure along the Reggio Canal. The area adjacent to the Reggio Canal was subject to frequent flooding and constant erosion. The purpose of the project was to eliminate the flooding and erosion problems and preserve the existing concrete roadway adjacent to the canal. The design of the bulkhead allows residents to access the canal via removable flood gates and also allows an existing boat launch to remain in use in conjunction with the flood and erosion protection measures. The project consisted of structural design of the steel sheet pile bulkhead wall and tieback systems, design of drainage systems, connection and coordination with a levee project adjacent to the proposed bulkhead, maintenance dredging of the existing canal, utility relocations, roadway and other site restoration, traffic maintenance, and all incidental work.</p> <div style="text-align: center;">  </div>							
Completion Date (Actual or estimated):	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">Estimated Cost:</th> </tr> <tr> <th style="width: 50%; text-align: center; padding: 5px;">Entire Project:</th> <th style="width: 50%; text-align: center; padding: 5px;">Work for which Firm was Responsible:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 5px;">2006 (actual)</td> <td style="text-align: center; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> \$595.000 \$595.000 </div> </td> </tr> </tbody> </table>		Estimated Cost:		Entire Project:	Work for which Firm was Responsible:	2006 (actual)	<div style="display: flex; justify-content: space-between;"> \$595.000 \$595.000 </div>
Estimated Cost:								
Entire Project:	Work for which Firm was Responsible:							
2006 (actual)	<div style="display: flex; justify-content: space-between;"> \$595.000 \$595.000 </div>							

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PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>FEMA Hazard Mitigation Assistance Consultant (Project No. 2130-02035), Benefit Cost Analysis (BCA), New Orleans, LA</p> <p>City of New Orleans Austin Feldbaum, Hazard Mitigation Administrator 1300 Perdido Street, 9th Floor New Orleans, LA 70112 afeldbaum@nola.gov (504) 658-8740</p>	<p>Broadmoor Stormwater Drainage Lakeview Drainage Mirabeau Water Garden St. Roch Drainage</p> <p>BBEC assisted the City of New Orleans with performing Benefit-Cost Analyses which reflected the life-cycle cost for the resulting projects. At the time the City engaged BBEC, the benefit cost ratio, calculated by others, did not meet FEMA's requirements for approving of Phase II of these projects. BBEC worked with City officials and FEMA representatives to develop an alternative method to calculating the benefit cost ratio based on the depth damage functions provided by the United States Army Corps of Engineers. By using this method and incorporating approved cost guidance, BBEC worked with the design engineers to focus on those areas that generated the greatest benefit. BBEC performed a Benefit-Cost Analysis on the resulting model that resulted in a benefit cost ratio of 1 or greater.</p> <p>BBEC performed the below noted scope of services:</p> <ul style="list-style-type: none"> Collected property information for structures located in the effective design area necessary to calculate project benefits for the BCA. Developed a report of the property data collected. Evaluated all existing data and providing recommendations for additional necessary data. Completed data entry and preparation for FEMA's Damage Frequency Module for BCA. Analyzing the resulting data set for the BCA and making/performing revisions, as needed. Updated BCA and providing additional information based on revision recommendations. 	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2024 (estimated)	\$65.539.897	\$65.539.897

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M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.		
Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A	N/A	BBEC's firm nor its staff has had any litigation with Jefferson Parish.
2.		
3.		
4.		
N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.		
 <div style="display: inline-block; vertical-align: middle; margin-left: 20px;"> <p style="font-size: 1.2em; margin: 0;">Barowka and Bonura</p> <p style="font-size: 1.2em; margin: 0;">Engineers and Consultants, L.L.C.</p> </div>		
<p>Barowka and Bonura Engineers and Consultants, L.L.C. (BBEC) is an engineering consulting firm specializing in civil engineering design, construction management, and computer consulting services. BBEC is experienced in water and wastewater treatment plant design, operation, and maintenance management, landfill leachate collection and treatment, water transmission, sewerage collection, road and bridge design, program management, and stormwater management planning. Our experience includes managing the various public works projects through construction and ensuring that a quality project is completed on time, within budget, while minimizing disruption to the surrounding public. We also have substantial experience working with federal agencies in maximizing grant funding and assisting our clients in complying with grant requirements and securing grant reimbursements. Our computer consulting services includes the design, implementation, and maintenance of geographic information systems and related databases, personal computer (PC) network design construction, and maintenance, and PC software application development.</p>		

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MINIMUM QUALIFICATIONS:

- One (1) firm representative who has at least five (5) years' experience in the field or fields of expertise required for the project
This requirement is met by: Mr. Jeffrey Bonura, P.E.

1. PROFESSIONAL TRAINING AND EXPERIENCE IN PERFORMING SMALL, SITE-SPECIFIC ENVIRONMENTAL PROJECTS, SUCH AS ENVIRONMENTAL SITE ASSESSMENTS; CORRECTIVE ACTION PLANS; RISK ASSESSMENTS; BROWNFIELDS REDEVELOPMENT; COASTAL USE PERMIT APPLICATIONS; COASTAL RESTORATION PLANNING ASSISTANCE; RESEARCH OF REGULATIONS, AVAILABLE TECHNOLOGIES, ETC.:

BBEC's staff has specific experience in program management and in the design of landfills and the individual components thereof, secondary containment systems, the removal and installation of USTs, stormwater management and containment systems, coastal protection and restoration, levees, roads and bridges, water treatment and distribution systems, sewerage collection and treatment systems, and ancillary work such as private property issues, drainage systems, flow maintenance, deep excavations, management of traffic signalization and street light installations, and building construction. BBEC is experienced in MS4 permitting, including the development of best management practices, measurable goals, and annual reports. Similarly, BBEC is experienced in maintaining compliance with the Clean Water Act with respect to developing stormwater pollution prevention plans and maintaining compliance with the plan.

BBEC has completed numerous projects through construction in both residential neighborhoods and high-traffic commercial and industrial areas. Our staff designed various drainage projects that included all details regarding runoff calculations by hand and by computer model, drainage system hydraulics by hand and computer model, drainage pipe and structure sizing and installation, roadway restoration, sidewalk and driveway connections, utility relocation and coordination, and all incidental work. Similarly, we have developed computer models for sewer collection and transmission systems and for water distribution systems.

BBEC's proposed Project Engineer/Project Manager, Mr. Jeffrey Bonura, P.E. has experience in performing and managing design, bidding, construction (including inspector training and oversight), and as-built drawing phases of over \$200 million in Public Works construction projects that includes water treatment and distribution; sewer collection and treatment; solid waste collection and disposal; roadway, bridge, and drainage systems; watershed management; levees and water control structures; landfill design and permitting; underground storage tank management; geographical information systems; earthwork and site development, erosions control and bank stabilization structures and features, earthen levees, flood walls and gates, and coastal protection and restoration. Further, Mr. Bonura has substantial specific experience with providing design, procurement, construction management, record document preparation, FEMA/GOHSEP reimbursement coordination, and FEMA grant maximization of roadway and other FEMA funded construction projects. Mr. Bonura assisted various Parishes obtain over \$750 million in FEMA and HUD funded grants and is currently assisting the Parishes implement the projects and close out the grants. Mr. Bonura has substantial experience coordinating the work with construction contractors and other engineering firms, as well as local, state, and federal agencies.

2. PAST AND CURRENT PROFESSIONAL ACCOMPLISHMENTS FOR WHICH REFERENCES FROM CLIENTS OR FORMER CLIENTS AND INFORMATION GATHERED BY INSPECTION OF CURRENT OR RECENT PROJECTS MAY BE CONSIDERED:

As noted throughout this Statement of Qualifications, BBEC and its staff members have an excellent history of service to its clients, its Departments, and its citizens. Our projects range from the smallest \$5,000 fee project to our largest \$60,000,000 fee project. Project descriptions are included in this qualifications submittal to

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substantiate our experience in previous contracts. We invite further scrutiny of our track record with the Parish through discussion with any of the Departments noted elsewhere in this document. BBEC has not been faulted with any time delays, cost overruns, and / or design inadequacies. Our current clients include Lafourche Parish, St. Charles Parish, Jefferson Parish, Orleans Parish, Terrebonne Parish, the City of Baker, the City of Covington, Lafitte Area Independent Levee District, Plaquemines Parish, the Town of Jean Lafitte, the Town of Madisonville, St. Tammany Parish, and St. Bernard Parish. We have also performed work for the State of Louisiana. Much of our work is or was funded through federal or state grants, so we have substantial experience with securing grant funding and administering grants.

BBEC's staff has performed and managed design, bidding, construction (including inspector training and oversight), and as-built drawing phases of about \$50 million in Jefferson Parish Department of Public Works construction projects that included all aspects of construction similar to those in the project sought such as marsh and ridge restoration, shoreline stabilization and protection, beneficial use of dredge material, living shoreline design, hydrologic and hydraulic modeling, design analysis and reports, environmental assessments, technical evaluations, cost estimates, opinions of probable construction cost and field investigations, grant writing, and public awareness and relations. BBEC's reputation for performance in Jefferson Parish is second to none.

For Jefferson Parish projects completed by BBEC, we offer the following references:

- **Mitch Theriot, P.E., Director of Drainage Department • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 907, Jefferson, LA. 70123 • 504-736-6751**
- **Michelle Gonzales, CFM Director of Ecosystem and Coastal Management • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 310, Jefferson, LA. 70123 • 504-736-6653**
- **Neil Schneider, P.E., Director of Capital Projects • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 906, Jefferson, LA. 70123 • 504-736-6833**
- **Mark Drewes, Director of Public Works • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 904, Jefferson, LA. 70123 • 504-736-6783**
- **Jeb Tate, Director of Electronic Information Systems • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 700, Jefferson, LA. 70123 • 504-736-6720**

For recent projects we have performed that have similar detailed aspects for other clients, we offer the following references:

- **Gina Hayes, Chief Administration Officer • St. Tammany Parish • 21490 Koop Drive, Mandeville, LA 70471 • 985-898-2445**
- **Miles Bingham, P.E., Director of Public Works • St. Charles Parish • 15045 River Road, Hahnville, LA. 70057 • 504-736-8753**
- **Guy McInnis, Parish President • St. Bernard Parish • 8201 W. Judge Perez Drive, Chalmette, LA 70043 • 504-278-4227**
- **Nicole Cooper, Project Manager, Lafitte Area Independent Levee District • Town of Jean Lafitte • 2654 Jean Lafitte Blvd, Lafitte, LA 70067 • 504-689-2208**

Relevant projects in addition to those described in Section L include:

Dedicated Dredging on the Barataria Basin Landbridge (Project No. 2503-08-34), Jefferson Parish, LA, 10/2008-03-2010

The project consisted of constructing and maintaining 68,200 linear feet of containment dikes for two designated fill areas, and then pumping 5,232,648 cubic yards of dredged material from designated and permitted borrow areas into the fill areas for approximately 1,211 acres of marsh creation and nourishment.

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Since there was surplus dredge material in the permitted borrow areas, an additional 4,132,352 cubic yards of material was placed in adjoining fill areas to nourish about 1,578 additional acres of marsh, for a total re-creation of 2,789 acres of marsh.

The project is located in Jefferson Parish, along the southeastern shoreline of Bayou Rigolets and Bayou Perot on either side of the Harvey Cut, approximately 2 miles south of the town of Lafitte. BBEC performed Construction Administration and Construction Inspection services including conducting progress meetings, reviewing pay applications, preparing progress reports, coordinating submittal review and change order development, and monitoring the progress of the work to ensure compliance with the project plans and specifications. BBEC also worked with the Department to develop a plan to utilize the surplus 4,132,352 cubic yards to nourish additional areas of marsh.

Barataria Basin Barrier Island Shoreline Restoration Study at Caminada Headland (Project No. 2503-12-21), Lafourche Parish, LA, 2005-2007

The project was part of a feasibility level engineering and design effort to develop a plan to restore and/or protect the natural barrier island system and thereby create a sustainable ecosystem in the Barataria Basin. BBEC managed a surveying firm and a geotechnical firm in the performance of a geotechnical investigation to assess the subsurface conditions of the beach and the marsh in the project area so that the design of earthen containment levees and fill areas could be completed. BBEC coordinated the work of the surveyor and geotechnical engineer with the landowner and LDNR to ensure that the concerns of all parties were addressed and that the required data was generated to facilitate the final design of the marsh creation project.

Evaluation of Using Sunken Vessels for the Reduction of Storm Surge in the Mississippi River Gulf Outlet (DNR Contract No. 2503-05-49), 2006

The purpose of the project was to evaluate the feasibility of sinking ships to create a closure of the Mississippi River Gulf Outlet. The use of ships for closure was proposed as a near-term, temporary means for closing the channel in preparation for hurricane season until the construction of a long-term closure is completed. BBEC investigated the requirements for such a closure project including ship acquisition, ship remediation/environmental considerations, the longevity of the closure, construction methodology, project costs and schedule, other project considerations such as permitting and attractive nuisance, and alternative projects. The report concluded that a conventional closure was preferable since it can be constructed at least as expediently, is specifically designed for its function, virtually eliminates risks to the environment and public safety, and lasts much longer than a ship breakwater closure.

Braithwaite to White Ditch Levee Improvements (Public Works Project No. 09-01-04A, 09-01-04D), Plaquemines Parish, LA, 03/2012-06/2018

BBEC performed construction inspection services for the Parish's Levee Improvements Project, Braithwaite to White Ditch. Our role on this project was to be the QAR for the design engineer and Plaquemines Parish. BBEC was responsible for the day to day construction quality assurance inspections to ensure the project is built to the designed specifications. The work consists of clearing and grubbing, earthen levee degrading to +2', Installation of high strength geotextile fabric, install of levee embankment at a 1 on 3 slope to a +12.5', Steel sheet pile driving, and construction of an aggregate roadway to access the project. BBEC performed the following Construction Inspection Services:

- Reviewing progress schedule, schedule of shop drawing and sample submittals, and schedule of values prepared by contractor and consult with the Engineer.
- Attending meetings with the contractor, including preconstruction conferences, progress meetings, job conferences and other project related meetings, and prepare and circulate copies of minutes.
- Assisting with providing information regarding the intent of the contract documents.
- Obtaining additional information when required for proper execution of the work.
- Considering and evaluating suggestions from contractor and reporting to Engineer. Preparing and

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submitting decisions in writing to contractor.

- Conducting on-site observations of contractor's work in progress to assist Engineer in determining if the work is proceeding in accordance with the contract documents.
- Reporting to Engineer any work in progress believed to be unsatisfactory, defective or will imperil the integrity of the design concept of the completed project.
- Consulting with Engineer in advance of scheduling major inspections, tests, and systems startups.
- Observing, recording, and reporting to Engineer appropriate details relative to test procedures and start-ups.
- Maintain correspondence, reports of job conferences, contract documents, change orders, field orders, work change directives, addenda, and additional drawings.
- Preparing daily reports recording all data relative to the project for the work day.
- Drafting and recommending proposed change orders, work change directives, and field orders and obtaining back up material.
- Notifying Engineer of site accidents, emergencies, damage to property, or any other concerns requiring immediate attention.
- Reviewing applications for payment with contractor for compliance.
- Verifying that certificates, maintenance and operation manuals, and other data required to be assembled and furnished by the contractor were applicable to the items actually installed and in accordance with the contract.
- Upon completion, the inspector participated in substantial completion inspection, and prepared the lists of items to be completed or corrected. He also assisted with the final inspection and verified all items were completed or corrected and made recommendations to the Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

Repair of Buras Marina, Plaquemines Parish, LA, 2013-2015

The project consisted of repairs of the damages to the Buras Marina caused by Hurricane Isaac. BBEC oversaw the design for the repairs, bidding services, and construction management for the project.

Emergency Levee Repairs, St. Bernard Parish, LA, 2005

BBEC flew 4.5 miles of damaged levees and identified breaks by GPS. BBEC assisted St. Bernard Parish procure an emergency construction contract to make the repairs in advance of pending Hurricane Rita. BBEC worked with the Parish and Lake Borgne Basin Levee District to secure a suitable levee material. BBEC's project engineer, Mr. Jeffery Bonura, P.E., stayed on site 16 hours per day directing levee repair crews, making sure damaged areas were properly cleaned of grass and debris and filled and compacted with suitable borrow material.

Sanitary Landfill 2019 Solid Waste Permit Application, Jefferson Parish, LA, 01/2018-01/2020

BBEC worked as a subconsultant to another firm to develop a complete solid waste permit renewal for the Jefferson Parish Sanitary Landfill. BBEC's role in developing the permit application included:

- Ownership of property verification
- Site plan development, including verification of facilities, contours, soil borings and conditions, groundwater monitoring wells and conditions
- Verification of environmentally sensitive sites within the facility
- Verification of environmentally sensitive sites surrounding the facility
- Leachate collection system
- Technical review of the completed permit application

The permit application was submitted and determined to be administratively complete by the LDEQ and is currently undergoing a complete technical review by the agency. Once comments are received, if any, BBEC

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will address the comments associated with our part of the project.

Wilkinson Pump Station, Plaquemines Parish, LA, 2015

BBEC provided Construction Inspection Services serving as the liaison between the Corp of Engineers and Plaquemines Parish. BBEC worked with members of CPRA in the review and QA process. The work consisted of construction of a new pump station, new floodwall, new levees, berms and embankments, new channels and ditches, and demolition of the existing pump station. The pump station and floodwall construction consist of two phases of work.

The first phase was construction and monitoring of the preload. Construction of the preload consisted of clearing and grubbing, sand fill placement, vertical wick drain installation, geotechnical instrumentation installation, and placing and compacting embankment.

The second phase was construction of the pump station and floodwall. Construction of the pump station consists of clearing and grubbing, excavation, deep soil mix column installation, driving pile, placing reinforced concrete, placing and compacting embankment, and installing vertical pumps, engines, discharge piping, new discharge pipe supports, and other electrical and mechanical system. Construction of the new discharge pipe supports consists of driving pile, placing concrete beam, and constructing pipe support saddles. Construction of the pump station included a metal building system with safe room, an elevated fuel storage platform, a precast concrete ramp, reinforced concrete wing-walls, and a steel walkway above the discharge piping. Construction of the floodwall consisted of clearing and grubbing, excavation, driving pile, placing reinforced concrete, and placing and compacting embankment. Levee and embankment construction consisted of clearing and grubbing, excavation, placing sand fill and un-compacted fill, placing reinforcement geo-textile, placing and compacting embankment, and establishing turf. Channel and ditch construction consisted of excavation and placement of riprap with bedding. A new storm drainage system consisting of reinforced concrete pipe and inlet was constructed to convey storm water from the pump station and levee to the intake channel. Demolition of the existing pump station consisted of removal and storage of pumps, engines, and gears, demolition and removal of the pump station structure, elevated fuel storage tanks, fencing, retaining walls, and other structural, electrical, and mechanical systems.

Diamond Pump Station, Plaquemines Parish, LA, 2015

BBEC provided Construction Inspection Services serving as the liaison between the Corp of Engineers and Plaquemines Parish. BBEC worked with members of CPRA in the review and QA process. This project is frontal protection for the Diamond pump station. The work consisted of construction of reinforced concrete floodwalls, clearing and grubbing, site drainage modifications, vertical wick drains, embankment material installed for preload/surcharge, steel sheet pile driving, steel H pile driving, concrete slope paving, concrete base slab and stem for T-walls, extending steel pump station discharge tube piping, installing backflow prevention and all mechanical components necessary per specification. Temporary Flood Protection and Temporary Restraining Structures using sheet piles, Struts, and whalers, required accomplishing the construction goals for the contract. These TRS were installed to facilitate the install and were removed once the below grade structures were complete. The earthen levee was reconfigured to tie into the newly installed T-wall. This project consisted of 8 monoliths. All monoliths consisted of the driving of sheet piles up to 45' in length and H piles up to 150' in length. All sheet piles were driven to grade on the project baseline. Sheet piles were also used to close off the existing discharge basin. This consisted of tying into the existing sheet pile structures and running piles into a curtain wall incorporated into the flood wall base slab. All grades/locations were verified using RTK method survey equipment provided by the contractor. All site/crane safety inspections followed USCAE EM-385 and were performed by BBEC and USACE QA.

Oakville to La Reussite Levee, Plaquemines Parish, LA, 2013

BBEC provided Construction Inspection Services serving as the liaison between the Corp of Engineers and Plaquemines Parish. BBEC worked with members of CPRA in the review and QA process. The work

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consisted of installing temporary access roads, drainage structures, traffic control, installing steel sheet piling, Install of TRS (Temporary Retaining Structure) steel H-piling, constructing concrete floodwall, placement of compacted fill in an approximate 8 mile segment of embankment, concrete slope pavement, and extending eight (8) existing seventy two (72) inch diameter discharge pipes used for the Mississippi River Diversion. This diversion was lined with steel sheet piles and whalers. Struts were placed between the whalers to ensure support. Sheet piles in the existing diversion would be shored and new piles installed. Sheet piles were also driven in the 16 monoliths from Oakville PS to the south. These said piles were tied into the existing structure on the project baseline. Piles were driven to grade and verified by BBEC using RTK method survey equipment provided by the contractor. All site/crane safety inspections followed USCAE EM-385 and were performed by BBEC and USACE QA.

Ollie Pump Station, Plaquemines Parish, LA, 2015

BBEC provided Construction Inspection Services serving as the liaison between the Corp of Engineers and Plaquemines Parish. BBEC worked with members of CPRA in the review and QA process. This project was to provide frontal protection for the Ollie Pump Station. The work consisted of construction of reinforced concrete floodwalls, clearing and grubbing, site drainage modifications, steel sheet pile driving, extending steel pump station discharge tube piping, installing backflow prevention and all mechanical components necessary. Temporary Flood Protection and Temporary Restraining Structures using sheet piles, Struts, and whalers, are required to accomplish the construction goals for the contract. These TRS were installed and to facilitate the install and were removed once the below grade structures were complete. Asbestos and Lead Abatements included in the demolition on an existing pump station building. A bridge was constructed on the north side of the property to haul earthen levee embankment material and create a surcharge/preload of material to stabilize the sub-grade. The earthen levee will be reconfigured to tie into the newly installed floodwall. This project consisted of 10 monoliths. All monoliths consisted of the driving of sheet piles up to 45' in length and H piles up to 150' in length. All sheet piles were driven to grade on the project baseline. Sheet piles were also used to close off the existing discharge basin. This consisted of tying into the existing sheet pile structures and running piles into a curtain wall incorporated into the flood wall base slab. All grades/locations were verified using RTK method survey equipment provided by the contractor. All site/crane safety inspections followed USCAE EM-385 and were performed by BBEC and USACE QA.

Duvic Pump Station, Plaquemines Parish, LA, 2013

BBEC provided Construction Inspection Services serving as the liaison between the Corp of Engineers and Plaquemines Parish. BBEC worked with members of CPRA in the review and QA process. The work consisted of construction of reinforced concrete floodwalls, earthen levee construction, clearing and grubbing; painting; establishment of turf; placing crushed stone for roadway, bedding, geo-textile, driving steel sheet piling, steel H-piles, excavation, structural excavation and backfill, surfacing, drainage systems, electrical systems, back flow prevention, demolition of existing discharge pipes, construction of temporary flood protection and other incidental work. All site/crane safety inspections followed USCAE EM-385 and were performed by BBEC and USACE QA.

Repair of Venice Marina, Plaquemines Parish, LA, 2013-2015

The project consisted of repairs of the damages to the Venice Marina caused by Hurricane Isaac. BBEC oversaw the design for the repairs, bidding services, and construction management for the project.

Map Modernization Project (DFIRM) (Contract No. EMT-2005-CA-0110), St. Bernard Parish, LA, 03/2005-12/2008

BBEC assisted FEMA develop St. Bernard Parish's flood insurance rate maps as part of FEMA's map modernization program. BBEC prepared the project scoping document for St. Bernard Parish and received FEMA approval in accordance with FEMA document Guidance for Scoping Flood Mapping Projects. BBEC incorporated the Parish's hydraulic features into the GIS. BBEC performed the necessary hydraulic and hydrologic studies and analyses necessary for the implementation of the map modernization project by using

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USCAE's hydraulic and hydrologic modeling software HEC-RAS and HEC-HMS. BBEC incorporated the results of the hydrologic and hydraulic studies GIS to develop the necessary flood plains. BBEC prepared a Base Map for the project (streets, ditches, benchmarks, etc.) from St. Bernard Parish's existing GIS, modifying the format to FEMA standards. BBEC has submitted all hydraulic and hydrologic and survey work for independent QA/QC and is currently developing DFIRM base maps. All work associated with the development of the DFIRMs were in strict compliance with the National Flood Insurance Program.

Digital Flood Insurance Rate Map, Jefferson Parish, LA, 03/2005-12/2008

BBEC performed all GIS / Database Management services for the Jefferson Parish DFIRM Project, including documentation and preparation of maps and GIS data. BBEC was responsible for preparing Metadata Base according to "Content Standard for Digital Geospatial Metadata." BBEC prepared base maps including streets, railroads, canals, ditches, benchmarks and flood hazard contours to meet DFIRM specifications. BBEC was also responsible for generating maps to meet DFIRM specifications and to provide all data and maps in the correct format acceptable by FEMA. Considering that all work associated with the development of the DFIRMs was in strict compliance with the National Flood Insurance Program, BBEC has an intimate knowledge of the NFIP program.

Sanitary Landfill Stormwater Detention, Jefferson Parish, LA, 1998

BBEC designed a complete drainage system for the 88 acre Phase III expansion site. The project designs included the construction of ditches, canals, bridges, culverts, and outfall structures. BBEC performed the hydrologic modeling to determine the runoff for the site, and performed the hydraulic modeling analysis to determine the ditch and canal cross sections, with the existing tight elevation constraints. BBEC performed a cost analysis study to determine the most cost effective method for the canal crossings. The project also compared precast box culverts, poured in place box culverts, ConSpan sections, precast (Waskey) bridge sections, and poured in place bridge sections. Further, with concurrence of the contractor on the site, it was determined that the poured in place bridge section was the most cost effective method. The culvert sizes were also determined and final construction drawings and specifications prepare for the entire project. BBEC also was responsible for design of four casts in place concrete bridges with wingwalls. The bridges were required to have up to 24 feet clear spans.

Sanitary Landfill Phase III Expansion, Jefferson Parish, LA, 1998

Mr. Bonura designed the leachate collection and transmission system which included 24 submersible collection pumps, miles of collection and transmission pipe, and a transmission pumping station. Mr. Bonura determined stormwater runoff for the site and designed a drainage system for the 88 acre site, which included a system of canal, stormwater detention pond, and roadway crossings.

Sanitary Landfill Phase I and II Expansion, Jefferson Parish, LA, 1997

Mr. Bonura served as Project Engineer and Construction Manager for the upgrade to the Phase I and Phase II sites of the Jefferson Parish Sanitary Landfill to meet new Federal Subtitle D regulations. Mr. Bonura's design responsibilities included about 20 HDPE leachate manholes with submersible pumps and several thousand feet of leachate collection pipe under existing solid waste; several thousand feet of leachate transmission lines; the retrofitting of about 20 leachate collection lines to install in-line submersible pumps; and an oxidation pond with an overflow/outfall structure. The concrete outfall structure maintained the level in the oxidation pond to prevent overflow by used of a weir gate allowing the overflow to discharge into a nearby canal by gravity flow. Mr. Bonura was responsible for Construction Management of the entire project.

3. CAPACITY FOR TIMELY COMPLETION OF THE PROJECT, INCLUDING THE SIZE OF THE FIRM BASED ON THE NUMBER OF PERSONNEL, AS RELATED TO PROJECT REQUIREMENTS AND/OR SCOPE:

Our wealth of experience with public works type projects enables us to provide the Parish with the necessary

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knowledge of keeping the Project on schedule and within budget, adhering to the standards set forth by the Parish. BBEC can begin work immediately and devote the necessary manpower to continue with the work through completion within any reasonable schedule required by the Parish. BBEC has never failed to meet or exceed our clients' expectations on any of our projects. Our projects are currently on schedule.

BBEC's staff consists of 23 professional, technical, and clerical personnel capable of handling all project and administrative tasks; all of which are available to work on the project. Mr. Bonura will manage the project through completion, making sure that all requirements of the project are met. BBEC has sufficient licensed and experienced engineers, junior engineers, technicians, and GIS and drafting support to effectively perform work with its existing staff. We have the necessary support staff (engineering interns and CAD technicians) to develop plan sets and permit applications for the project.

Mr. Bonura, P.E., Mr. John Housey, P.E., Mr. Madan Kamboj, P.E., Mr. Matt Hahn, P.E., and Mr. Kevin Forschler, P.E., have combined nearly 150 years of experience in the design and construction management of various public works projects. If successful, BBEC would manage the project with one of its experienced staff currently performing services for Jefferson Parish.

GIS SERVICES

BBEC has been performing general GIS services for Jefferson Parish for over 20 years. While much of the services addressed other utilities, parcel and subdivision mapping, database and software licensing and upgrades, BBEC performed drainage specific projects relevant to drainage modeling

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- BBEC assisted the Department develop the drainage layer, adding drainage structures from aerial photography and developing the subsurface piping network from the Parish's paper unit sheets.
- BBEC assisted the Parish develop its canal monumentation project by managing the survey and abstracting effort to identify many of the Parish canals' right-of-way boundaries, and installed x, y, z survey monuments for use by the maintenance crews.
- BBEC assisted and continues to assist the Parish in updating its aerial photography and LIDAR information, whether Parish funded or obtained from other agencies.

CAD SERVICES

BBEC has sufficient drafting support personnel currently on staff to work on design projects with their lead drafter having over 30 years of experience in Civil, Structural, Architectural, Electrical and GIS/Mapping fields

COST ESTIMATING

BBEC has in-depth knowledge and experience with accurate cost estimates for Jefferson Parish and surrounding Parishes projects. Our staff members include personnel skilled in estimates that perform detailed cost estimates for the majority of our projects, including environmental and similar work. We adhere to national cost estimating standards to prepare "fair and reasonable" construction cost estimates. Our team also provides extensive construction expertise to augment and ground-truth cost estimating, scheduling, and constructability review activities.

Cost estimates developed for specific projects are covered in the individual projects addressed in other sections of this SOQ.

GRANT WRITING, OUTREACH AND EDUCATIONAL SUPPORT AND DEVELOPMENT OF ASSOCIATED MARKETING MATERIALS

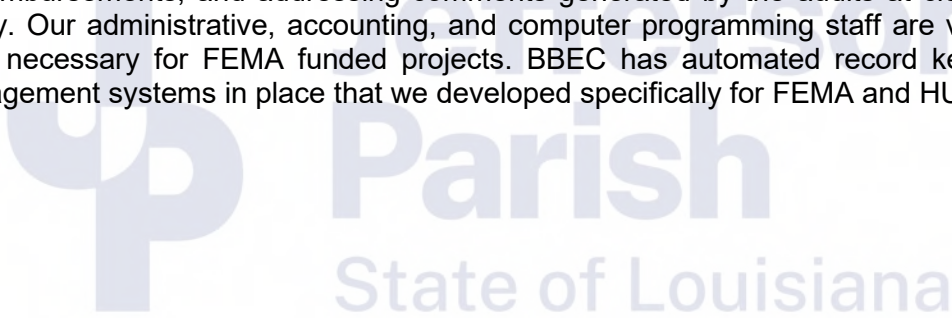
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BBEC is fully versed in the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP), including the Flood Mitigation Assistance Program (FMA); in addition, we are experienced in other federal grant programs, such as the FEMA's Public Assistance (PA) Grant Program, U.S. Department of Transportation's Emergency Road Program under the Federal Highway Administration (FHWA), and the HUD Community Development Block Grant Program (CDBG). BBEC has considerable experience in the execution of federal grant-funded projects and adhering to the requirements and standards of the grant administering agency. BBEC provided various stages of grant assistance for FEMA and HUD funded projects for over \$750 million in grants.

AGENCY COORDINATION

Our experience includes managing and procuring contractors and coordinating the work with the Environmental Protection Agency (EPA), FEMA, Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), U.S. Department of Housing and Urban Development (HUD), Louisiana Department of Environmental Quality (LDEQ), State Historic Preservation Office (SHPO), U.S. Army Corps of Engineers (USACE), U.S. Department of Transportation (USDOT) and other State and Federal agencies. We have substantial experience in working with all agencies in developing, processing, and obligating the necessary project worksheets so that funding of the project occurs.

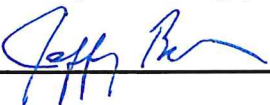
BBEC has also assisted its clients in obtaining its federal grants, maintaining compliance with the grants, securing the reimbursements, and addressing comments generated by the audits at close-out of the grants when necessary. Our administrative, accounting, and computer programming staff are very familiar with the record keeping necessary for FEMA funded projects. BBEC has automated record keeping, tracking and document management systems in place that we developed specifically for FEMA and HUD projects.

Parish
State of Louisiana

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

Signature:  Print Name: Jeffrey Bonura, P.E.

Title: Member Date: January 6, 2023