



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

SOQ No. 24-021

**Routine Engineering Services
for Streets Projects**

Resolution No.: 144319

**Deadline: Tuesday, July 16, 2024
at 3:30 PM**

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

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



Collaborate. Innovate. Implement.

July 16, 2024

Jefferson Parish Purchasing Department
c/o Mr. Mark Buttery, Purchasing Specialist II
General Government Building
200 Derbigny St., Suite 4400
Gretna, Louisiana 70053

**SUBJECT: Routine Engineering Services for Streets Projects
Resolution No. 144319**

Dear Mr. Buttery:

Barowka and Bonura Engineers and Consultants, L.L.C. (BBEC) appreciates the opportunity to submit this Statement of Qualifications to provide Routine Engineering Services for Street Projects in Jefferson Parish (Resolution No. 144319).

BBEC, an engineering consulting firm specializing in civil engineering, design, and construction management services, is fully qualified to provide the engineering services necessary for any type of streets project.

BBEC has substantial experience in roadway and drainage design and construction management, civil engineering design, and program administration. BBEC has completed numerous projects through construction throughout residential neighborhoods and high-traffic commercial and industrial areas. In Jefferson Parish, BBEC designed roadway repair/replacement projects such as Cleary Avenue, West Esplanade Avenue Resurfacing, Veterans Boulevard Resurfacing projects, back-to-back U-turns and culverts at Cleary Avenue and West Metairie Avenue, and West Esplanade Avenue at North Labarre Road. As noted in this Statement of Qualifications, BBEC has substantial roadway design and construction management projects in neighboring parishes as well. The projects included drainage, water, sewer, and roadway construction, sidewalk and driveway connections, utility relocation and coordination, levee construction and renovation, flood control analysis, and all incidental work.

In addition to our specific engineering expertise, BBEC has extensive knowledge of Geographic Information Systems (GIS). Drawings developed from the GIS showing site topography could be used to develop preliminary site plans for construction, traffic detour plans, preliminary cost estimates, project presentations, and many other uses.

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

Once again, we sincerely appreciate the opportunity to submit this Statement of Qualifications to Jefferson Parish, and we look forward to serving you.

Very truly yours,

A handwritten signature in black ink, appearing to read "Jeff Bonura". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jeffrey Bonura, P.E.
Sole Member

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Routine Engineering Services for Streets Projects (Resolution # 144319)

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 Bonura, P.E.
Sole 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.

**John J. Housey, Jr. P.E.
Office: (504) 828-0030
Fax: (504) 828-8006
Email: jhousey@bbecllc.com**

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

<u>5</u> Administrative	<u>0</u> Estimators	<u>0</u> Specification Writers
<u>0</u> Architects (Licensed)	<u>0</u> Geologists	<u>2</u> Structural Engineers
<u>0</u> Chemical Engineers	<u>0</u> Geotechnical Engineers	<u>1</u> Graduate Engineers
<u>4</u> Civil Engineers	<u>0</u> Interior Designers	<u>2</u> Project Managers
<u>1</u> Construction Inspectors	<u>0</u> Landscape Architects	<u>2</u> Clerical
<u>0</u> Ecologists	<u>0</u> Land Surveyor	<u>4</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>0</u> Professional Land Surveyors	<u>3</u> Drafters	<u>26</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 <u>all subcontractors must submit a fully completed copy of this questionnaire</u>, 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: <u> 22 </u>		

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:

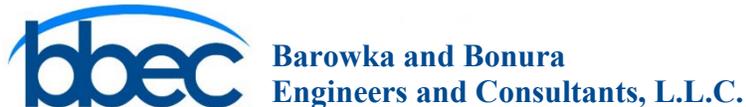
Name & Title:

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

Project Assignment:

Supervising Professional / Project Manager

Name of Firm with which associated:



Years' experience with this Firm:

27

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:

Mr. Bonura began his career in 1987 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 planning, design, project management, and construction administration of a broad range of civil and structural engineering projects including roadway and drainage, water and wastewater treatment plant design, operation and maintenance management, landfill leachate collection and treatment, water transmission, wastewater collection, and stormwater management.

Mr. Bonura also has substantial experience in assisting his clients with administering federal and state grants. He has provided grant management and assistance to his clients for over \$750 million in FEMA or HUD funded projects. Mr. Bonura's grant management experience includes project formulation, cost estimation, fund accounting, and pursuit of a broad range of FEMA funded grants.

Mr. Bonura served as project engineer/manager for the projects listed below. His responsibilities included work plan preparation, budgeting, cost control and monitoring, team supervision, engineering design, and construction

TEC Professional Services Questionnaire

management.

Relevant projects Mr. Bonura has worked on over the years include:

Woodmere Boulevard Panel Replacement, State Project No. H.012884, JP Project No. 2017-061-RBP, Jefferson Parish, LA, 08/2019-Present

Mr. Bonura is currently project engineer for the over 10,000 square yard pavement patching project, responsible for all construction engineering tasks, including project start-up, partial and final pay estimates, change orders, inspector review and oversight, project budget management, shop drawing review, and coordinating the work with LADOTD and Jefferson Parish. BBEC provided LADOTD certified inspectors through the duration of the project.

Lakefront Pedestrian Path (Suburban Canal to Causeway), State Project No. H.011780, JP Project No. 2015-010-RB, Jefferson Parish, LA, 07/2019-Present

Mr. Bonura is currently serving as Project Engineer for the project, which includes about 6,000 square yards of aggregate base, excavation for the base, 1,150 tons of superpave asphalt, and related sod, seeding and embankment in Jefferson Parish, Louisiana. As project engineer, Mr. Bonura maintains and develops the project documents in Site Manager, and review payroll in DOTD's other AASHTO Ware applications.

Ames Boulevard Rehabilitation, West Bank Expressway to Happy Street, (Public Works Project No. 2013-033-RB) (DOTD No. H.01179), Jefferson Parish, LA, 11/2015-Present

Mr. Bonura is serving as the Supervising Professional for this project which includes all necessary professional design services in connection with the project defined as follows: Mill existing asphalt pavement over existing concrete roadway; replace damaged concrete roadway panels, associated underlying base course, and concrete curb as necessary; clean and seal existing concrete joints; overlay existing concrete roadway with new asphalt; adjust existing public utility facilities (water, sewer, drainage) as necessary to match finished roadway grades and comply with current ADA guidelines; and install permanent striping.

As this project is eligible for federal construction funds as part of the Federal Aid Urban System Program, all work shall be performed in accordance with Louisiana Department of Transportation and Development (LA DOTD) guidelines which includes development of existing and proposed drainage maps with associated hydraulic computations, and all design work shall be subject to review by the LA DOTD.

BBEC completed the Preliminary Phase of this project coordinating all topographic surveys and other investigations, preparing a program of borings and other soil investigations, plotting information obtained from surveyor on plan, preparing preliminary layouts and sketches to develop design criteria, and preparing a preliminary cost estimate.

Nearing the end of the Design Phase, BBEC prepared detailed construction plans and technical specifications in accordance with LA DOTD criteria and submitted 90% plans for LDOTD review. These plans include locations of all utilities affected, and ownership and taking lines of rights-of-way where required. BBEC will also prepare permits for submission to and approval of local, state and federal authorities.

Vintage Street Bridge at Duncan Canal, City of Kenner, LA, 2005-2006

The project consisted of the construction of a new cast-in-place concrete bridge and the installation of a 36-inch diameter water line canal crossing. BBEC provided construction management and resident inspection. The construction cost was \$1,200,000.

Road Bond Parish-Wide Improvement Program (Public Works Project No. 98-026-RBI), Jefferson Parish, LA, 04/1998-08/2006

Mr. Bonura coordinated several road construction projects between Jefferson Parish and the design consultants as

TEC Professional Services Questionnaire

a member of the Jefferson Parish Roads Program Management Team, ensuring timely progress of the projects and maintaining the quality and standards of the work, maintaining computerized project schedules and an on-line reporting system for all projects in the program.

Mounes Street Extension SPN # 93-052-RBI

Served as Program Manager during construction of this project. Project consisted of replacing a two-lane asphalt roadway and replacing it with a 4-lane concrete roadway for one block, then extending the roadway for approximately 1331 ft. (including sub-surface drainage). Monitored the construction of this project for the parish. Assisted the Construction Engineer by resolving conflicts or other situations arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated the relocation of existing power poles with the utility company and the contractor. Coordinated the installation of the Railroad Crossing with the railroad company and the Parish. Resolved issue of telephone duct bank interference with proposed box culvert with contractor and utility company. (\$3,032,920.00)

Terry Parkway Improvements SPN # 98-029-RBI

Project consisted of widening a four-lane section of concrete roadway to a six-lane roadway for approximately 2583 ft. (including sub-surface drainage & traffic signalization). Monitored the construction of this project for the parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated the traffic flow with the Parish Traffic Dept. and nearby shopping center to ease inflow and outflow traffic to the parking lots. Worked with Construction Engineer and Water Dept. to resolve the installation of a required 50 ft. mast arm near a deteriorating water line without damage. Met with local political leaders to satisfy the traffic concerns of the traveling public and to coordinate additional roadway repairs in the near-by neighborhood. Review and mark-up As-built drawings to reflect what was installed and constructed. (\$1,548,387.00)

Whitney Avenue Canal Improvements (Stumpf Boulevard To Belle Chasse Highway) SPN # 98-030-RBI

Mr. Bonura served as Program Manager during construction of this project. Project consisted of lining the Whitney Ave. Canal with a concrete flume (20'-wide x 10'-high x 3434 ft.-long) to stabilize the canal banks in order to improve the existing two-lane roadway (including curb & gutter, roadway base repair, milling of asphalt and overlay). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Assisted the Contractor with his coordination with another near-by construction operation (98-031-RBI). Coordinated the hauling of excavated canal material with the Contractor and the Parish-operated landfill to use for cover material. Assisted the Construction Engineer with his dealings with the utility company to move their lines. Closely monitored the vibration results from the Testing Lab to keep the vibrations from the construction operations to a minimum (worked with local leaders and their concerns for private property). (\$7,729,045.00)

Whitney Ave Improvements. (Westbank Expressway to Stumpf Blvd.) SPN # 98-031-RBI

Mr. Bonura Served as Program Manager during construction of this project. Project consisted of closing the Whitney Ave. Canal with several concrete box culverts (triple-barrel 433 feet, double-barrel 550 feet, single barrel 2825 feet) to enclose the canal in order to improve the existing two-lane roadways on each side of the canal and add U-turns in various locations (including curb & gutter, roadway base repair, milling of asphalt and overlay, sub-surface drainage, traffic signalization). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose

TEC Professional Services Questionnaire

during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Assisted the Contractor with his coordination with another near-by construction operation (98-030-RBI). Coordinated the hauling of excavated canal material with the Contractor and the Parish-operated landfill to use for cover material. Assisted the Construction Engineer with his dealings with the utility company to move their lines. Closely monitored the vibration results from the Testing Lab to keep the vibrations from the construction operations to a minimum (worked with local leaders and their concerns for private property). Worked closely with Parish officials to solicit funds from an incorporated city to help replace the deteriorated water line and line the deteriorated sewer line prior to proceeding with a reconstructed roadway. Met with local businesses and the Construction Engineer to facilitate access to all driveways during construction. (\$9,103,724.00)

Destrehan Avenue Extension (Keithway Dr. to Lafitte-Larose Hwy, Surcharge) SPN # 98-034-RBI

Served as Program Manager during construction of this project. Project consisted of clearing the ROW through a wooded area and pasture land in order to haul in sand to surcharge the area for a future roadway (surcharge dimensions 50' x 8' x 9917'). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Assisted the Construction Engineer to coordinate a change in roadway alignment to avoid a transmission tower (not shown on survey). Negotiated a change to the canal crossing as requested by the Contractor with a cost savings. (\$3,202,489.00)

West Metairie/North Lester Intersection Improvements SPN # 98-044-RBI

Served as Program Manager during construction of this project. Project consisted of installing a 255 ft. triple-barrel concrete box culvert in the W. Metairie Ave. canal, then construction of an asphalt U-turn above it (along with turning radius improvements on two near-by intersections). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Assisted the Construction Engineer with problems that arose with the Contractor (did not follow his own schedule, road closures without proper notice, disregard for parish guidelines). Dealt with complaints from residents and local officials that were generated due to the actions of the Contractor (improper installation of steel sheeting, did not follow their own procedure for canal excavation which lead to canal bank & roadway failures). Coordinated the hauling of excavated canal material with the Contractor and the Parish storage facility. Met with parish officials and Construction Engineer regarding the improvements made at near-by intersections that cross the same canal (repairs to incidental paving and sidewalks without disturbing the sensitive canal banks and headwalls). (\$1,745,586.00)

West Metairie/Houma Boulevard U-Turn SPN # 98-045-RBI

Served as Program Manager during construction. Project consisted of installing a 250 ft. triple-barrel concrete box culvert in the W. Metairie Ave. canal, then construction of an asphalt U-turn above it (remove old bridge at Houma Blvd.). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated the replacement of two existing lanes to insure the proper drainage of run-off from the U-turn. Assisted the Construction Engineer with a redesign of the U-turn elevations so that the concrete curb & gutter sections cleared the top of the box culvert. Coordinated request by the Parish Drainage Dept. to modify the in-place sheet pile to channel the canal flow. Reviewed and marked-up As-built drawings to reflect what was installed and constructed. (\$1,415,219.00)

West Metairie/Severn Ave. Improvements SPN # 98-043-RBI

TEC Professional Services Questionnaire

Program Manager during construction. Project consisted of widening Severn Ave. from two-lanes to four-lanes (with two lanes serving as turn lanes) as it intersected with an existing four-lane roadway (including curb & gutter, widening of existing roadway, milling of asphalt and overlay, sub-surface drainage). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Monitored the Contractor to make sure traffic flowed smoothly through this heavily traveled intersection. Coordinated with the Contractor to alleviate construction generated concerns of local residents (access to driveways, standing water on roadway, dust control, etc.). Attended meetings with Parish officials, Traffic Dept. and Construction Engineer to make modifications to the planned traffic signalization. Reviewed and marked-up As-built drawings to reflect what was installed and constructed. (\$1,101,704.00)

New Rivet Blvd SPN # 98-056-RBI

Program Manager during construction. Project involves a new two-lane roadway to connect River Road with Live Oak Blvd. in Waggaman, La. Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated with the Construction Engineer, Parish officials and local property owners to relocate proposed drain lines and water lines in order to avoid the root systems of near-by trees. Sent sketch to Contractor depicting the location of added equipment as requested by the Parish Water Dept. Settled issues between the individual that donated the ROW to the Parish and Parish officials. (\$4,208,364.00)

Power Blvd Improvements (I-10 to W. Esplanade) SPN # 92-038-RBI

Mr. Bonura Served as Program Manager during the construction of this project. The Project consisted of widening a four-lane asphalt roadway and replacing it with a 6-lane asphalt roadway (including sub-surface drainage). Mr. Bonura oversaw the monitoring of the construction of this project for the parish. He assisted the Construction Engineer by resolving conflicts or other situations that arose during construction, presented field concerns to the parish and coordinated their resolutions, reviewed Contractor Invoices, Testing Lab Invoices, and Change Orders for processing, and coordinated the field adjustments to all sidewalk grades and drop inlets. He also coordinated the installation of median sidewalk and all related issues and reviewed and marked-up As-built drawings to reflect what was installed and constructed. (\$4,772,797.00)

Williams Boulevard/Vintage Drive Roadway Drainage and Enhancement Improvements, West Side of Williams Boulevard (Public Works Project No. 2014-001E-CIP), City of Kenner, LA, 02/2015-03/2017

Mr. Bonura served as Supervising Engineer for the Williams Boulevard/Vintage Drive Roadway, Drainage and Enhancement Improvements project which included all basic services required to complete the project including all necessary services in the performance of Preliminary Design, Design, Bidding, Construction and Record Drawing phases.

BBEC was sub-consultant to ECM Consultants, Inc. on this project. In this capacity, BBEC provided Roadway Design services in connection with this project in each of the required phases. Specifically, BBEC provided engineering and design services for all roadway services associated with the new U-Turn Lane for WB-50 on the West Side of Williams Boulevard at Vintage Drive. The roadway design services provided by BBEC included:

- Asphaltic concrete roadway for a new U-turn lane including transitions and tie-in to existing roadways on both sides of the canal
- New concrete curb including transition and tie-in to existing
- Drainage System Design associated with new U-turn lane including tie-ins to existing drainage system

TEC Professional Services Questionnaire

(pipes and structures)

- Plan for concrete Median Island, including walks and handicapped ramps.
- Utility adjustments necessary for the new U-turn lane and Median Island
- Summary of estimated quantities
- Plan and profile sheets
- Pavement Striping and Permanent Traffic Signs Plan
- Preliminary and Final Construction Cost Estimates

Sunset Boulevard Road Improvement Project Phase II, Kenner, LA, 1993

Mr. Bonura served as design engineer and Construction Manager for the 3000 foot section of 4 lane roadway. The project included asphalt roadway design with a concrete roadway bid alternate, drainage systems, utility relocations, and one new precast concrete bridge, the rehab of an existing precast concrete bridge, lighting, and coordination with LDOTD, traffic control, and traffic signalization. The project allowed the existing roadway to be pulverized into crushed concrete, in place, and be used as a base for the new construction. In addition to the typical construction administration tasks, Mr. Bonura reviewed the project shop drawings himself to ensure that the project was built correctly without discrepancies or conflicts. The construction value was about \$3,000,000.

Sunset Boulevard Road Improvement Project Phase III, Kenner, LA, 1995

Mr. Bonura served as design engineer, Project Manager, and Construction Manager for the 3000-foot section of 4 lane roadway. The project included asphalt roadway design (overlay and new roadway) with concrete curb and gutter, drainage systems, utility relocations, and traffic control and signalization. In addition to the typical construction administration tasks, Mr. Bonura reviewed the project shop drawings himself to ensure that the project was built correctly without discrepancies or conflicts. The construction value was about \$1,000,000. The construction contractor was terminated for default; the completion negotiations (led by BBEC) resulted in the surety hiring a completion contractor and resuming work three weeks after the termination of the original contractor.

Sanitary Landfill, Jefferson Parish, LA

Mr. Bonura Designed four cast-in-place concrete bridges with wingwalls, which were required to have up to 24 feet clear spans, performed cost analysis to determine that the designs were the most cost-effective designs, as compared to precast and box culvert bridges.

West Esplanade Resurfacing Project, Jefferson Parish, LA, 2001

Mr. Bonura oversaw the surveyor and geotechnical consultant and designed an asphalt roadway mill and overlay profile for West Esplanade Avenue between Power Boulevard and Transcontinental Drive. The designs also included adding concrete barrier curbs and curb and gutter along the entire project and maintaining proper drainage when connecting to adjacent streets, sidewalks, drives, and properties.

Veterans Boulevard Resurfacing, Jefferson Parish, LA, 2002

Mr. Bonura served as project manager for the resurfacing of Veterans Blvd. from Severn Avenue to Lake Villa Drive. Mr. Bonura specified required drainage improvements, turning modifications, and overlay requirements. Mr. Bonura coordinated the work with the Parish's geotechnical engineer to take cores of the existing roadway to develop the scope of the mill and overlay project. BBEC issued direction to the Parish's annual contractor for the necessary improvements while the work was ongoing. Work was scheduled to minimize the impact on traffic along Veterans Blvd.

Westbank Mississippi River Levee Bike Path, Jefferson Parish, LA, 07/1999-10/2006

Mr. Bonura prepared detailed plans and specifications for the construction of a 7 mile asphalt bike path located on top of the Mississippi River Levee. Mr. Bonura then served as construction manager of the project and provided oversight to the project inspectors. Mr. Bonura coordinated the work with the contractor, parish, levee district, and

TEC Professional Services Questionnaire

DOTD. Mr. Bonura also developed grant applications (Stage 0 Studies) for 2 other phases of the Westbank Bike Path Program for Jefferson Parish.

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

As Supervising Engineer, Mr. Bonura is overseeing the assessment of the damages along the streets contained in this project. He 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 used DOTD's HYDRWIN software to design all drainage improvements in the project area. Mr. Bonura is also designing the 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

As Supervising Engineer, Mr. Bonura is overseeing the assessment of the damages along the streets contained in this project. He 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 used DOTD's HYDRWIN software to design all drainage improvements in the project area. Mr. Bonura is also designing 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

As Supervising Engineer, Mr. Bonura is overseeing the assessment of the damages along the streets contained in this project. He 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 used DOTD's HYDRWIN software to design all drainage improvements in the project area. Mr. Bonura is also designing 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.

Gentilly Woods Street Improvements (Project No. 2012-FEMA-2F1-1), City of New Orleans, LA, 01/2013-07/2016

Mr. Bonura served as Supervising Engineer for the Gentilly Woods Street Improvement project which included all professional engineering design services for FEMA-eligible paving street repairs on streets in the area bounded by Chef Menteur Hwy./Gentilly Blvd., Peoples Ave., the Dwyer Canal, and the Industrial Canal/Inner Harbor Navigation Canal. Plans and specifications for the reconstruction of these roads included the following design features: roadway pavement complete with curbs; a base for the roadway pavement; subsurface drainage, water, and sanitary sewer installation; adjustments as required at driveways and at intersecting streets; installation of ramps for the handicapped at intersections.

During the Survey and Scoping Phase, BBEC acquired all information on the required area of the project, including topographic surveys and information on existing and proposed utilities. A Project Scope Report was prepared based on the results of the survey and programming documents provided by the Department of Public Works, which included an analysis of the constructability, cost, and time schedule. During the Preliminary Design Phase,

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BBEC assisted the engineer by incorporating approved FEMA eligible work into a plan/profile sheet utilizing the City of New Orleans Standards and Details and preparing an initial cost estimate.

BBEC completed the preliminary and final design phases which included the preparation of complete final construction plans, specifications, bid documents, and construction cost estimate. This project has not yet been selected for construction by the City of New Orleans.

Paris Road Resurfacing Project LA 46 to Chalmette Ferry Landing (LDOTD Project No. 704-44-0018) St. Bernard Parish, LA, 2004-2006

Mr. Bonura served as the Supervising Engineer for the Project which included the design of improvements to cold plane, overlay, and restripe the northbound and southbound lanes of Paris Avenue between LA 46 and the Ferry Terminal on the Mississippi River, a distance of approximately 2,500 feet in St. Bernard Parish, Louisiana.

BBEC was selected for the performance of all pre-construction engineering services necessary for the preparation of complete plans, specifications and estimates for the proposed improvements.

BBEC was responsible for developing construction plans from available aerial photography, performing field verification surveys to ensure accuracy of the aerial photographs, and overseeing the geotechnical consultant to design the asphalt roadway mill and overlay project for Paris Road between St. Bernard Highway (LA Hwy 46) and the Chalmette Ferry Landing. The designs also included roadway widening, asphalt pavement patching, temporary traffic control, some side road drainage, and connecting to existing driveways. The project was designed so that the roadway should remain in service while construction was being performed.

Viola Street Widening LA Hwy 59 East to LA Hwy 1088 (Professional Services Contract No. 05-024), St Tammany Parish, LA, 03/2005-03/2008

Mr. Bonura served as Supervising Engineer for this project where BBEC performed preconstruction engineering services for the Viola Street Widening project from LA Hwy 59 East to LA Hwy 1088. Included in these services was the coordination of land surveys, the development of a conceptual plan, preliminary project phasing and engineer's estimate of construction cost, the development of construction plans, and the securing of all permits required from the LA DOTD.

As part of the Conceptual Plan, BBEC included typical cross sections for the roadway based on the existing right of way. BBEC identified and located all existing utilities within the right of way on the plan and identified potential conflicts and suggested possible solutions.

The Preliminary Design Plan and Construction Estimate included construction costs for an asphalt roadway, including drainage. Roadside drainage in the design plan was designed for the 25 year storm.

Hurricane Katrina Damage Roadway Restoration, St. Bernard Parish, LA (FEMA FUNDED PROJECT), 09/2005-08/2017

Mr. Bonura served as senior project engineer over \$102 million of the repairs, assisting with general design and construction administration oversight, and assisting with continued negotiations with FEMA regarding eligibility of the work performed and to be performed. The construction contracts were established as work-order based unit price contracts. There were 18 projects consisting of 436 streets and 450,000 square yards of concrete roadway panel replacement, plus corresponding drives, sidewalks, and ADA ramps.

- St. Bernard Parish Roadway Restoration Project No. 07-836-07-837
- Construction Cost: \$3,393,777.42
- St. Bernard Parish Roadway Restoration Project No. 08-841
- Construction Cost: \$7,441,280.04
- St. Bernard Parish Roadway Restoration Project No. 3233A

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- Construction Cost: \$5,456,725.00
- St. Bernard Parish Roadway Restoration Project No. 3233B
- Construction Cost: \$7,331,154.09
- St. Bernard Parish Roadway Restoration Project No. 18581A
- Construction Cost: \$3,671,959.53
- St. Bernard Parish Roadway Restoration Project No. 18581B
- Construction Cost: \$3,673,691.13
- St. Bernard Parish Roadway Restoration Project No. 18583A
- Construction Cost: \$1,499,608.55
- St. Bernard Parish Roadway Restoration Project No. 18583B
- Construction Cost: \$2,703,762.58
- St. Bernard Parish Roadway Restoration Project No. 18590A
- Construction Cost: \$3,413,262.49
- St. Bernard Parish Roadway Restoration Project No. 18590B
- Construction Cost: \$4,387,638.18
- St. Bernard Parish Roadway Restoration Project No. 18590C
- Construction Cost: \$4,085,902.02
- St. Bernard Parish Roadway Restoration Project No. 18590D
- Construction Cost: \$3,716,665.40
- St. Bernard Parish Roadway Restoration Project No. 2010-104
- Construction Cost: \$9,851,368.31
- St. Bernard Parish Roadway Restoration Project No. 2010-105
- Construction Cost: \$11,006,223.16
- St. Bernard Parish Roadway Restoration Project No. 2010-106
- Construction Cost: \$8,067,207.02
- St. Bernard Parish Roadway Restoration Project No. 2010-110
- Construction Cost: \$9,814,646.28
- St. Bernard Parish Roadway Restoration Project No. 2010-107
- Construction Cost: \$3,699,032.20
- St. Bernard Parish Roadway Restoration Project No. 2012-102
- Construction Cost: \$9,815,822.77

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

In 2012, East Law Street from Paris Road to Lavosier Street was rehabilitated under the St. Bernard Parish Public Works Roadway Restoration Project number 2010-110. The scope of the work involved concrete panel, concrete curb, and driveway replacement. All Work was completed in accordance with the plans and specifications and there was no indication of defective work during the time of installation. During this timeframe, there was a concrete crushing company that had stockpiled loads of concrete refuse approximately twenty feet high on the southern side of the property near the fence adjacent to E. Law St. This amount of concrete placed an enormous load on the soil which exceeded the soil's bearing capacity, causing the displacement of the soils, which in turn caused the roadway to heave and shift. This resulted in a section of the roadway shifting southward approximately one foot from the original alignment and to heave approximately 2-1/2 feet at its highest point. BBEC was tasked with evaluating the current conditions of roadway, drainage and sewerage facilities which was damaged by the private operator. Mr. Bonura reviewed scope of work, gathered information, attended meetings, and oversaw the development of the damage assessment report for the repairs submitted to St. Bernard Parish.

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Annual Asphalt Overlay and Concrete Street Replacement Maintenance, St. Bernard Parish, LA, 2003-2005

Mr. Bonura served as project manager and project engineer to assist the Parish in prioritizing damaged streets for repair due to the potential lack of funding for all the potential work to be done. Mr. Bonura developed plans and specifications for two work-order based annual maintenance contracts. Mr. Bonura developed and managed the implementation of a work order system where the work orders were developed and estimated early in the contract so that priorities could be addressed and the contractor had sufficient time to perform the work in an organized fashion. Mr. Bonura provided oversight for the project and staff engineers and assisted in resolving disputes and other construction related issues with the contractor, Parish, and public.

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

Mr. Bonura is currently serving as the Supervising Professional providing Construction Administration and Resident Inspection Services for the Mid-City Street Improvement project which includes all professional engineering design services for FEMA-eligible paving street repairs on streets in the Mid-City neighborhood area of New Orleans.

Plans and specifications for the reconstruction of these roads included the following design features: roadway pavement complete with curbs; a base for the roadway pavement; subsurface drainage, water, and sanitary sewer installation; adjustments as required at driveways and at intersecting streets; installation of ramps for the handicapped at intersections.

BBEC's responsibilities on this project were as subconsultant to the prime engineering firm. In this capacity, BBEC performed the Scoping Phase of the project which included assessment of the existing roadways and curbs, sidewalks, driveways, and handicapped ramps within the designated New Orleans Mid-City neighborhood for damages related to Hurricane Katrina to be submitted to FEMA for an eligibility determination. Mr. Bonura oversaw resident inspection services for ten (10) months, ensuring that the work was installed per plan and specs and quantities for payment were accurate.

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

Mr. Bonura is serving as the Supervising Professional providing Construction Administration and Resident Inspection Services for the Read Blvd. East Group C project which includes all necessary professional design services in connection with the project defined as replacement of roadway pavement, with base replacement, complete with curbs; replacement of sidewalks and drive aprons; subsurface drainage, water, and sanitary sewer installation; and adjustments as required at driveways, at intersecting streets, and at project termini to provide for positive flow of water towards catch basins.

BBEC completed the Design and Bidding Phases of this project; and, the project is currently being constructed. The bid price was \$3,282,480.53.

Harvard Avenue Drainage Improvements, Project No. 99-046-046-DR and 99-046A-DR, Jefferson Parish, LA, 04/2000-06/2006

Mr. Bonura designed approximately 6,000 linear feet of 24-inch to 72-inch drainpipe in Jefferson Parish, Louisiana. BBEC used Intergraph's Storm and Sanitary SelectCAD modeling software to determine the surface runoff and the pipe sizes. Data from the existing Parish's GIS was used to develop the surface terrain for the basis of the model. The project requires that the various drain lines be installed within 50-foot Parish right-of-ways in commercial and residential areas, existing utilities throughout the length of the project are maintained, and the site is restored, including roadways, to its before construction condition. The project also required three separate jack-and-bores, from 30-inches to 72-inches in diameter, across a three-lane roadway to discharge into a canal. The estimated construction cost is \$2,430,000.

TEC Professional Services Questionnaire

HMGP Elevation of Coast Guard Road, Phase I (Project No. 1603x-075-0010), Plaquemines Parish, LA (Funding Source: FEMA Hazard Mitigation Grant Program), 09/2013-06/2016

Mr. Bonura worked with Plaquemines Parish Government to design the two-foot elevation and stabilization of Coast Guard Road. As Supervising Engineer, he oversaw the design of the upgrades to the existing drainage system, a Hydrologic and Hydraulic (H & H) Study to identify the existing drainage system, the need for upgrades, and to assess the reduction of flooding due to contemplated improvements to Coast Guard Road. He performed calculations, modeling, and analysis to assess the hydraulic capacity of the existing drainage system and provided recommendations for improvements that will increase system capacity and reduce the risk of flooding. As part of the H&H evaluation, Mr. Bonura included an analysis of Mississippi River elevations data to identify periods when the improvements would be inundated by the river effects, and what depths would be encountered. Mr. Bonura oversaw the surveying and environmental review process.

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

Mr. Bonura is currently serving as Design Engineer and Supervising Professional for this project which consists of the reconstruction of Cleary Avenue between Veterans Boulevard and West Esplanade Avenue and includes drainage improvements.

The improvements include removing and replacing approximately 4,000 linear feet of four-lane concrete street (2 travel lanes, 2 parking lanes) with curbs; removing and replacing adjoining concrete sidewalks, drives, and ADA ramps; installation of new sub-surface drainage; installation of new outfall pipe crossing W. Esplanade Avenue and discharging into W. Esplanade Avenue Canal; installation of new outfall pipe crossing Veterans Blvd. and discharging into Veterans Blvd. Canal (Canal No. 3); the replacement of all water mains crossing Cleary Avenue and West Esplanade Avenue in the project area; and coordination with private utilities for their respective utility relocations.

The scope of work also includes traffic phasing, allowing the contractor to work on one lane at a time. When working on the parking lanes, the 2-way traffic is maintained. When working in the travel lanes, only 1-way traffic is allowed.

Mr. Bonura managed the resident inspection such that one inspector was provided for the full 2-year construction duration, and additional inspectors were provided when the work required it. The construction contract ran over the original contract time. The contractor paid the inspection cost overrun through liquidated damages.

Craig Avenue Drainage Improvements, Public Works Project No. 2019-022-DR, Jefferson Parish, LA, 01/2020-Present

Mr. Bonura is currently serving as the Supervising Engineer for this project. The scope of work includes the design and construction administration services for the design of upgrades to subsurface drainage on Craig Avenue between Kawanee Avenue and West Esplanade Avenue. The project involves installing a large diameter drain line within 20 feet of residential structures and connecting this new drain line to the existing trunk line that runs along the opposite side of the road and to the existing catch basins on the cross streets of Craig Avenue. BBEC is overseeing the Surveying and Geotechnical Engineering services.

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

Mr. Bonura is the supervising professional over the project, providing day to day input for the implementation of the project. BBEC is currently working on detailed plans and specifications for the construction of the 2.5 mile bike path, part of which is on the top of the Mississippi River levee and the balance of which in on the shoulders of two state highways. A key component to BBEC's designs on the levee section is to maintain the integrity of the levee and while constructing the base and asphalt bike path section with a limited width of top of levee. For the state

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highway portion of the project, part of the project has asphalt shoulders in place, therefore only pavement markings and signage are required. In other locations, roadway widening and required subsurface drainage is necessary to install the bicycle travel lanes.

BBEC developed a hydraulic and hydrologic model to drain a 220-acre area. BBEC designed the drainage for the area, which includes a series of canals with 48-inch and double 48-inch culverts.

BBEC is currently coordinating its work with the LDOTD, the West Jefferson Levee District, the USACE through the levee district, and Union Pacific Railroad to obtain the necessary permits to perform the project. BBEC is also working with Jefferson Parish to determine the required right-of-way (ROW) so it could be acquired from the adjacent property owner(s).

Once the design is complete, BBEC will perform bidding services, construction administration services, and resident inspection services for the construction project.

West Napoleon Avenue Improvements, Cleary Avenue to Severn Avenue, (LA DOTD Project No. 742-07-0088), Jefferson Parish, LA, 02/2003-08/2005

Mr. Bonura performed design and construction administration services on this \$13 million TIMED roadway and drainage project, which consisted of about 3,800 l.f. of four-lane concrete roadway divided by a new 30-foot wide concrete u-channel. Mr. Bonura coordinated with the private utility companies to relocate (or work around) natural gas pipelines and power and communication lines, overhead and buried, and coordinated construction and connection to public utilities (water and sewer) as well. Mr. Bonura reviewed and made recommendations regarding substitute materials and construction methods and monitored the contractors' accelerated operations that reduced the construction contract time from two and a half years to one and a half years.

Labarre Road Back-to-Back U-Turn Intersection Improvements (West Esplanade Avenue/North Labarre Road), Jefferson Parish, LA, 2004

Mr. Bonura served as the Supervising Engineer where the project consisted of the construction of a new cast-in-place concrete bridge and the installation of a 36-inch diameter water line canal crossing. BBEC provided construction management and resident inspection. The construction cost was \$1,200,000.

Primrose Box Culverts, St. Charles Parish, LA, 03/2004-10/2004

Mr. Bonura provided design and construction related services for the three 24-foot clear span box culverts and related road/drive restoration.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Kevin Forschler, P.E. Project Engineer
Project Assignment:
Project Engineer / Model Development
Name of Firm with which associated:
 Barowka and Bonura Engineers and Consultants, L.L.C.
Years' experience with this Firm:
9
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 Jefferson Parish, the City of New Orleans, St. Bernard Parish, and St. Tammany Parish. The projects he is working on involve water and wastewater treatment, lift station design, walkway design, roadway restoration, drainage modeling and design, and off-system bridges.</p> <p>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 area using SWMM V.5 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 Jefferson Parish and other 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>Relevant projects Mr. Forschler has worked on over the years include:</p> <p>RR176 – St. Roch Group North Group A (PMOI), City of New Orleans, LA, 10/2019-Present</p> <p>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</p>

TEC Professional Services Questionnaire

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.

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.

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.

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

Ames Boulevard Roadway Improvements (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.

TEC Professional Services Questionnaire

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.

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

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

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.

Craig Ave. Drainage Improvements, 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.

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.

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.

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.

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:
3.5
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 41 years of experience performing project design, construction administration, and project monitoring for general civil projects including water and sewer treatment plants, drainage, utilities, streets, highways and bridges, buildings, 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>Relevant projects Mr. Kamboj has worked on over the years include:</p> <p>Westbank Mississippi River Bike Trail, Around Avondale Shipyard, (2017-059-RBP), Jefferson Parish, LA, 12/2020-Present</p> <p>Mr. Kamboj is designing a 2.3 milelong bike path along River Road and finishing on the top of Mississippi River</p>

TEC Professional Services Questionnaire

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.

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.

Delon Hampton & Associates, Atlanta Georgia, 04/2004-09/2006

Mr. Kamboj served as Senior Project Manager for the design of intake structures for Clear Creek & Tanyard C.S.O. projects, design of 6.5 mile, four lanes of US-1 /US-4 in Toombs County GA. He performed project management and design of UV treatment upgrade for Big Creek Waste Plant for Fulton County.

N-Y Associates Consulting Engineers, Metairie, 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

TEC Professional Services Questionnaire

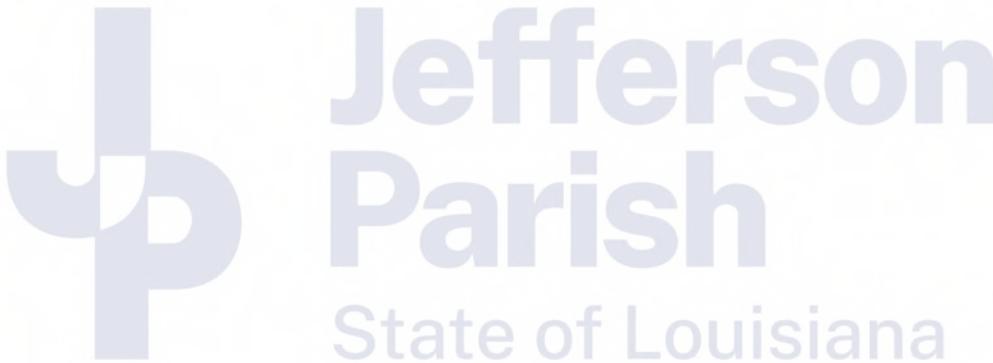
alternates, cost estimation, utility relocations, right-of-way studies, traffic, noise impacts, and maritime traffic studies for movable and fixed span bridge structures.

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.

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.



TEC Professional Services Questionnaire

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:
13
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 54 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 54 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 \$40 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>Relevant projects Mr. Housey has worked on over the years include:</p>

TEC Professional Services Questionnaire

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

As part of BBEC design team, 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, 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, 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.

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

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.

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

Mr. Housey provided Construction Administration services and Supervised Resident Inspectors for over \$102 Million in roadway 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 is 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.

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.

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 also is 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.

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

TEC Professional Services Questionnaire

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 inspector.

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

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.

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.

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-foot bottom width to 16-foot 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 currently designing 2,500 linear feet of large diameter reinforced concrete pipe box culverts, and U-channels for the project.

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.

Orleans Materials & Equipment Company, Inc.

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.

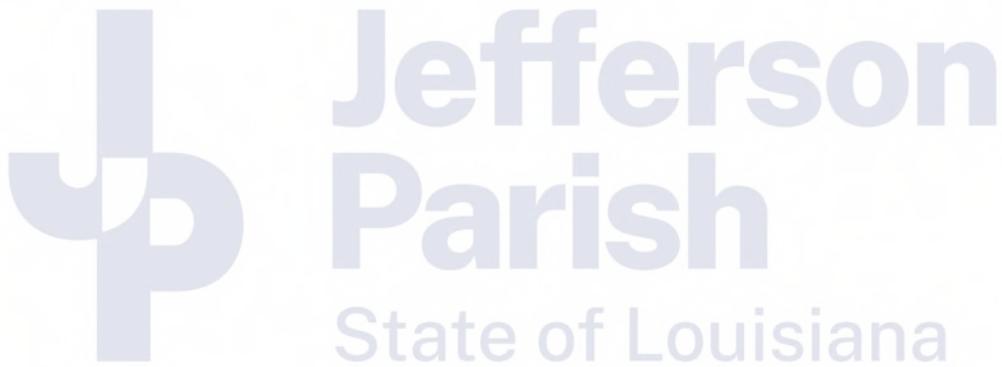
Bridges

- **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

TEC Professional Services Questionnaire

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

- **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.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Matthew Hahn, PE
Professional Engineer**

Project Assignment:

Design / Project Management

Name of Firm with which associated:



Years' experience with this Firm:

2

Education: Degree(s)/Year/Specialization:

B.S. / 2016 / Civil Engineering

Active registration: Year first registered/discipline:

2020 / Civil

Other experience and qualifications relevant to the proposed Project:

Mr. Hahn has over eight (8) 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 design and hydraulic modeling of 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.

Projects with detailed descriptions of work are provided below:

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

TEC Professional Services Questionnaire

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.

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.

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.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

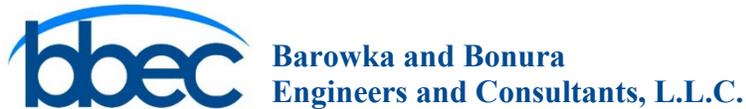
Name & Title:

**Ethan Jones, EI
Engineer Intern**

Project Assignment:

Modeling

Name of Firm with which associated:



Years' experience with this Firm:

2

Education: Degree(s)/Year/Specialization:

B.S. / 2022 / Civil Engineering

Active registration: Year first registered/discipline:

2022 / EI

Other experience and qualifications relevant to the proposed Project:

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 and creating plan sets for submittals. Mr. Jones has also done Grant Management where he 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. Mr. Jones has used WaterGEMS to model and analyze water systems for St. Tammany Parish. Additionally, Mr. Jones worked on aeration analysis for Flow Eq Basins. Mr. Jones is currently working on raw water intake for St. John the Baptist Parish.

Projects with detailed descriptions of work are provided below:

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.

TEC Professional Services Questionnaire

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.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

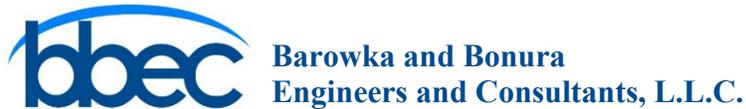
Name & Title:

**Ashton Bonura
Graduate Engineer**

Project Assignment:

Construction Services

Name of Firm with which associated:



Years' experience with this Firm:

10

Education: Degree(s)/Year/Specialization:

**B.S. / 2022 / Civil and Environmental Engineering
B.S. / 2020 / General Business with an Entrepreneurship Minor**

Active registration: Year first registered/discipline:

Other experience and qualifications relevant to the proposed Project:

Mr. Bonura is a recent graduate from the University of New Orleans where he obtained a Civil and Environmental Engineering degree in December 2022. He has assisted the licensed engineers within the company for several years prior to earning his degree. Mr. Bonura has worked on projects that involve water and wastewater treatment, lift station design, roadway rehabilitation and drainage improvements, and sanitary landfill permit renewals.

Projects with detailed descriptions of work are provided below:

Westbank Mississippi River Bike Trail, Around Avondale Shipyard, (2017-059-RBP), Jefferson Parish, LA, 08/2019-Present

Mr. Bonura assisted on this project by reviewing the plans and creating quantity take-off for the construction cost estimate, addressed client comments, and worked with drafters and engineers for plan revisions. 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.

Cleary Improvements (Veterans Blvd. to West Esplanade Ave.) (Council District 5) Jefferson Parish, LA, Public Works No. 2017-014-RBP, 08/2019-06/2021

Mr. Bonura assisted on this project by reviewing the plans and creating quantity take-off for the construction cost

TEC Professional Services Questionnaire

estimate, addressed client comments, and worked with drafters and engineers for plan revisions. Mr. Bonura worked with the resident inspector to reviewed plans and field work to verify the work performed by the contractor to verify final contract quantities. 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.

Woodmere Boulevard Panel Replacement, JP Project No. 2017-061-RBP, State Project No. H012884.6, Jefferson Parish, LA 05/2020-Present

Mr. Bonura assisted on this project by reviewing the plans and creating quantity take-off for the construction cost estimate, addressed client comments, and worked with drafters and engineers for plan revisions. Mr. Bonura worked with the resident inspector to reviewed plans and field work to verify the work performed by the contractor to verify final contract quantities.

RR176 – St. Roch Group North Group A (PMOI), City of New Orleans, LA, 12/2019-Present

Mr. Bonura assisted on this project by reviewing the plans and creating quantity take-off for the construction cost estimate, addressed client comments, and worked with drafters and engineers for plan revisions. 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.

RR177 – St. Roch Group North Group B (FRC), City of New Orleans, LA, 12/2019-Present

Mr. Bonura assisted on this project by reviewing the plans and creating quantity take-off for the construction cost estimate, addressed client comments, and worked with drafters and engineers for plan revisions. 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.

RR178 – St. Roch Group North Group C (FRC), City of New Orleans, LA, 12/2019-Present

Mr. Bonura assisted on this project by reviewing the plans and creating quantity take-off for the construction cost estimate, addressed client comments, and worked with drafters and engineers for plan revisions. 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.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

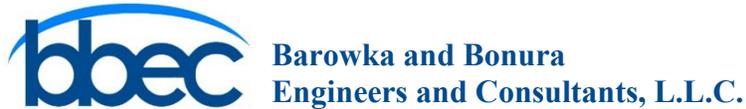
Name & Title:

**Pete Foret
Computer Aided Drafting**

Project Assignment:

Drafting

Name of Firm with which associated:



Years' experience with this Firm:

4

Education: Degree(s)/Year/Specialization:

**B.S. / 1995 / Business Administration with a Computer Science Option
and Management Minor**

Active registration: Year first registered/discipline:

Other experience and qualifications relevant to the proposed Project:

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 31 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.

Relevant projects Mr. Foret has worked on over the years include:

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.

TEC Professional Services Questionnaire

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

Mr. Foret generated the 90% 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 90% 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.

Gloria Drive Pump Station, Project No. 20-2022A, Lafitte Area Independent Levee District Drainage, Town of Jean Lafitte, LA, 02/2021-Present

Mr. Foret set up the survey and generated a preliminary site plan for a drainage pump station.

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

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.

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.

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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:
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<p>West Esplanade Resurfacing Project, Jefferson Parish, LA</p> <p>Jefferson Parish Government Mark Drewes, Director Department of Public Works 1221 Elmwood Pk. Blvd., Suite 904 Jefferson, LA 70123 MDrewes@jeffparish.net (504) 736-6783</p>	<div style="background-color: #0056b3; color: white; padding: 5px; border: 1px solid #0056b3; margin-bottom: 10px;"> <p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> Project Evaluation Project Design Drafting of Technical Plans Development of Technical Specifications Construction Administration </div> <p>BBEC was responsible for overseeing the surveyor and geotechnical consultant and designing an asphalt roadway mill and overlay profile for West Esplanade Avenue between Power Boulevard and Transcontinental Drive. The designs include the addition of concrete barrier curbs and curb and gutter along the entire project and maintaining proper drainage when connecting to adjacent streets, sidewalks, drives, and properties. The designs also included temporary traffic controls, including complete detours around parts of the project allowing for all of W. Esplanade to be closed to traffic for short periods of time. BBEC utilized existing GIS to develop surface terrain. Special requirements included using Parish right-of-ways in commercial & residential areas and restoring work areas to pre-construction condition.</p>
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Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2001 (actual)	\$1,500,000	\$300,000 (fee)

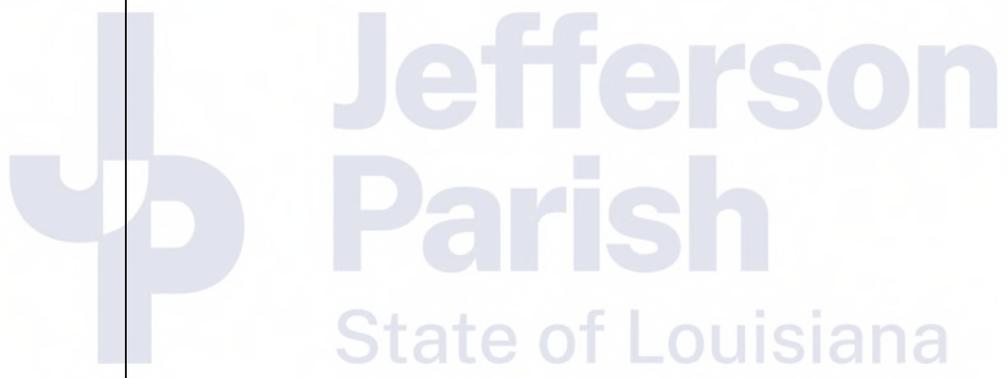
TEC Professional Services Questionnaire

PROJECT NO. 2

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>
<p>Cleary Improvements (Veterans Blvd. to West Esplanade Ave.) (Council District 5), Public -Works No. 2017-014-RBP, Jefferson Parish, LA</p> <p>Jefferson Parish Government Mark Drewes, Director Department of Public Works 1221 Elmwood Pk. Blvd., Suite 904 Jefferson, LA 70123 MDrewes@jeffparish.net (504) 736-6783</p>	<div data-bbox="451 436 852 814" style="background-color: #0056b3; color: white; padding: 10px;"> <p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> Project Evaluation Project Design Drafting of Technical Plans Development of Technical Specifications Construction Administration </div> <p>The project consists of the reconstruction of Cleary Avenue between Veterans Boulevard and West Esplanade Avenue and includes drainage improvements.</p> <p>Under a prior contract, BBEC developed a hydrologic and hydraulic model for the project area and the surrounding neighborhoods that drain into the project area; evaluated the design conditions and made recommendations for drainage improvements for the area.</p> <p>The improvements include removing and replacing approximately 4,000 linear feet of four-lane concrete street (2 travel lanes, 2 parking lanes) with curbs; removing and replacing adjoining concrete sidewalks, drives, and ADA ramps; installation of new sub-surface drainage; installation of new outfall pipe crossing W. Esplanade Avenue and discharging into W. Esplanade Avenue Canal; installation of new outfall pipe crossing Veterans Blvd. and discharging into Veterans Blvd. Canal (Canal No. 3); the replacement of all water mains crossing Cleary Avenue and West Esplanade Avenue in the project area; and coordination with private utilities for their respective utility relocations.</p> <p>The scope of work also includes traffic phasing, allowing the contractor to work on one lane at a time. When working on the parking lanes, the 2-way traffic is maintained. When working in the travel lanes, only 1-way traffic is allowed.</p> <p>As part of the roadway and drainage improvement project, BBEC performed the engineering services to design and construct 7 water line roadway crossings varying in size from 8-inch to 12-inch water mains. The roadway crossings included connecting to existing water mains with valves, tees, and other fittings as required.</p> <p>BBEC is currently providing Construction Administration and Construction Inspection Services including but not limited to:</p> <ul style="list-style-type: none"> Preparing formal contract documents for the execution of the construction contract Observing and inspecting the materials and construction procedures at the site of the work as it progresses Establishing construction monuments, project baseline, and benchmark's as necessary Coordinating with owners of utilities for relocation of their facilities to clear the

TEC Professional Services Questionnaire

	<p>site for construction</p> <ul style="list-style-type: none"> • Requiring and reviewing tests of materials necessary for the project • Determining contract pay quantities, including necessary materials checking • Verifying and approving contractor's pay estimates • Preparing progress reports, as requested • Preparing detailed drawings as necessary to supplement the construction drawings • Reviewing shop drawings and samples for conformance with the design and for compliance with the result required in the contract documents • Performing final inspection and making a recommendation for acceptance • Verifying and approving Testing Laboratory pay estimates • Preparing all necessary documentation required for construction change orders • Preparing written recommendation for all required changes to plans and specifications during construction • Attending council meetings and other meetings as necessary to discuss issues associated with the project 	
<p>Completion Date (Actual or estimated):</p>	<p>Estimated Cost:</p>	
	<p>Entire Project:</p>	<p>Work for which Firm was Responsible:</p>
<p>2021 (actual)</p>	<p>\$4,456,889</p>	<p>\$4,456,889</p>



TEC Professional Services Questionnaire

PROJECT NO. 3

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

Nature of Firm's Responsibility:

**Harvard Avenue
Drainage Improvements,
Project No 99-046-DR
and 99-046A-DR,
(Funding Source:
Community
Development
Block Grant),
Jefferson Parish, LA**

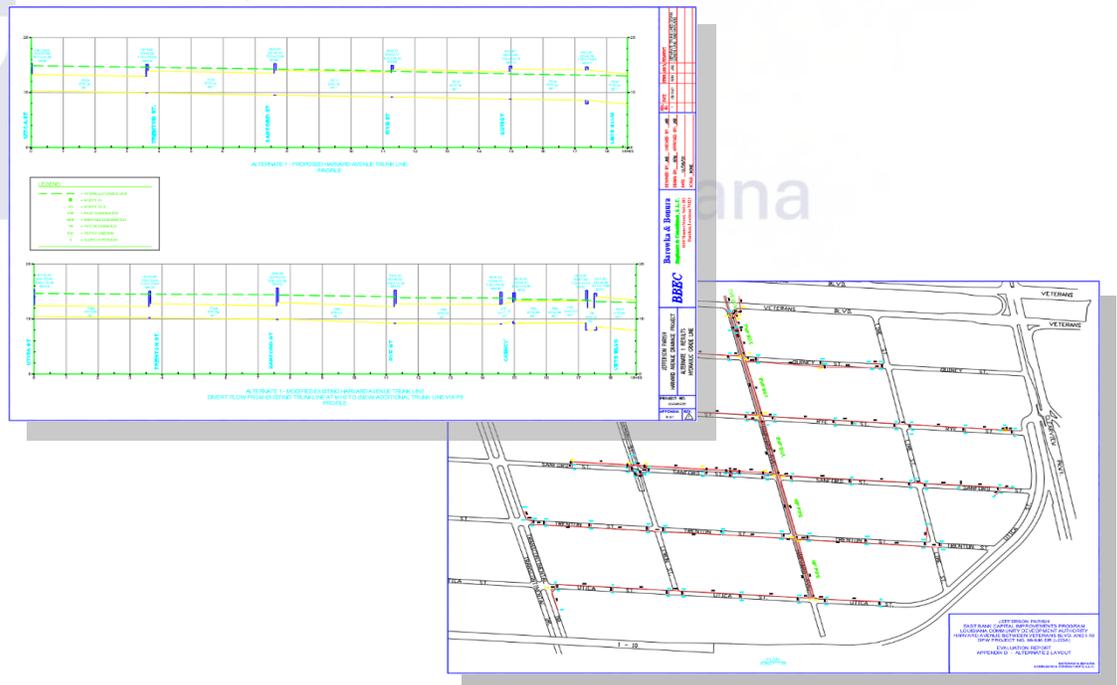
**Jefferson Parish
Government
Mark Drewes, Director
Department of
Public Works
1221 Elmwood Pk.
Blvd., Suite 904
Jefferson, LA 70123
MDrewes@jeffparish.net
(504) 736-6783**

Applicable Experience

- Project Evaluation
- Project Design
- Drafting of Technical Plans
- Development of Technical Specifications
- Construction Administration

BBEC designed approximately 6,000 linear feet of 24-inch to 72-inch drainpipe in Jefferson Parish, Louisiana. BBEC used Intergraph's Storm and Sanitary SelectCAD modeling software to determine the surface runoff and the pipe sizes. Data from the existing Parish's GIS was used to develop the surface terrain for the basis of the model. The project required that the various drain lines be installed within 50-foot Parish right-of-ways in commercial and residential areas, existing utilities throughout the length of the project maintained, and the site restored, including roadways, to it's before

construction condition. The project also required three separate jack-and-bores, from 30-inches to 72-inches in diameter, across a three-lane roadway to discharge into a canal. BBEC developed and administered the temporary traffic control plans for while the work was being performed.



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

Estimated Cost:

Entire Project:

Work for which Firm was Responsible:

June 2006 (actual)

\$449,840 (fee)

\$449,840 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 4

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

Nature of Firm's Responsibility:

**Veterans Boulevard
Resurfacing,
Jefferson Parish, LA**

**Jefferson Parish
Government**

**Mark Drewes, Director
Department of
Public Works
1221 Elmwood Pk.
Blvd., Suite 904
Jefferson, LA 70123
MDrewes@jeffparish.net
(504) 736-6783**

Applicable Experience

- Project Evaluation
- Project Design
- Drafting of Technical Plans

BBEC provided on-site engineering services for the resurfacing of Veterans Boulevard from Severn Avenue to Lake Villa Drive. BBEC worked with its geotechnical engineer to take core samples along the project site to determine the mill and overlay requirements and to identify crack depths to determine the need for any repairs. BBEC specified required drainage improvements, turning modifications, and overlay requirements. BBEC issued direction to the Parish's annual contractor for the necessary improvements while the work was ongoing. Work was scheduled to minimize the impact on traffic along Veterans Boulevard.



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

Estimated Cost:

Entire Project:

Work for which Firm was Responsible:

2002 (actual)

\$1,000,000

\$1,000,000

TEC Professional Services Questionnaire

PROJECT NO. 5

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>
<p>Hurricane Katrina Damage Roadway Restoration, Project No. 110 St. Bernard Parish, LA</p> <p>St. Bernard Parish 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>	<div data-bbox="443 443 854 814" style="background-color: #0056b3; color: white; padding: 10px;"> <p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> • Project Evaluation • Project Design • Drafting of Technical Plans • Development of Technical Specifications • Construction Administration </div> <p>BBEC performed all Design, Bidding, Construction Administration, and Resident Inspection services for the St. Bernard Parish Roadway 2010-110 roadway restoration project. The project included the repairs of 48 residential streets consisting of full depth patching of 21,981 square yards of PCC roadway pavement; the patching, milling and overlay of 2,833 square yards of asphalt pavement and repairs on connection to adjacent concrete drives, sidewalks, and ADA ramps.</p> <ul style="list-style-type: none"> • inspected the streets to identify all needed repairs and utilized the Parish's GIS and aerial photography scaled drawings to develop plans for the work • developed unit priced work-order based construction bid packages based on Parish and LDOTD standard details and specifications, and developed additional details and specifications where necessary • performed bidding and contract award services • performed normal construction administration services regarding contractor schedule, RFIs, shop drawings, schedules, invoices, and plan changes • perform plan-in-hand site visits with the contractor to ensure a clear understanding of the work required • perform resident inspection services to verify the work complied with the contract documents, was accurately accounted for in the invoices, and other typical services performed by a resident inspector • coordinated the work with the Parish's materials testing lab to ensure that the work was properly installed and tested, and reviewed the testing lab's invoices for compliance with their respective contract with the Parish • developed the necessary connection details to adjacent pavement when the adjacent pavement was not constructed to current standards or otherwise not suitable for a standard connection • documented additional damage (buried or increased since initial survey) and addressed accordingly • developed and maintained tracking schedules and/or maps for Parish management and/or public awareness • kept the Parish informed about the project through attendance at progress meetings and preparing status reports • developed record documents and performed a complete Construction Contract – Final Audit to ensure the project records were accurate and complete <p>In order to save engineering costs, and at the same time provide the contractor with useable drawings and details, BBEC utilized the Parish's existing GIS to develop its site plans to identify the work to the contractor for construction, and to eventually</p>

TEC Professional Services Questionnaire

develop clear record documents showing all work performed for the likely event of a future audit by FEMA to verify work performed. BBEC also maintained a status map that was published bi-weekly and provided to all interested parties to report on the status of the project.



Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2013 (actual)	\$11,216,003	\$11,216,003

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PROJECT NO. 6

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>
<p>Hurricane Katrina Damage Roadway Restoration, Project No. 105 St. Bernard Parish, LA</p> <p>St. Bernard Parish 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>	<div data-bbox="443 436 857 835" style="background-color: #0056b3; color: white; padding: 5px;"> <p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> Project Evaluation Project Design Drafting of Technical Plans Development of Technical Specifications Construction Administration </div> <p>BBEC performed all Design, Bidding, Construction Administration, and Resident Inspection services for the St. Bernard Parish Roadway 2010-105 roadway restoration project. The project included the repairs of 43 residential streets consisting of full depth patching of 38,212 square yards of PCC roadway pavement; the patching, milling and overlay of 8,377 square yards of asphalt pavement and repairs on connection to adjacent concrete drives, sidewalks, and ADA ramps.</p> <ul style="list-style-type: none"> inspected the streets to identify all needed repairs and utilized the Parish's GIS and aerial photography scaled drawings to develop plans for the work developed unit priced work-order based construction bid packages based on Parish and LDOTD standard details and specifications, and developed additional details and specifications where necessary performed bidding and contract award services performed normal construction administration services regarding contractor schedule, RFIs, shop drawings, schedules, invoices, and plan changes perform plan-in-hand site visits with the contractor to ensure a clear understanding of the work required perform resident inspection services to verify the work complied with the contract documents, was accurately accounted for in the invoices, and other typical services performed by a resident inspector coordinated the work with the Parish's materials testing lab to ensure that the work was properly installed and tested, and reviewed the testing lab's invoices for compliance with their respective contract with the Parish developed the necessary connection details to adjacent pavement when the adjacent pavement was not constructed to current standards or otherwise not suitable for a standard connection documented additional damage (buried or increased since initial survey) and addressed accordingly developed and maintained tracking schedules and/or maps for Parish management and/or public awareness <div data-bbox="995 1203 1549 1619" style="text-align: right;">  </div>

TEC Professional Services Questionnaire

- kept the Parish informed about the project through attendance at progress meetings and preparing status reports
- developed record documents and performed a complete Construction Contract – Final Audit to ensure the project records were accurate and complete

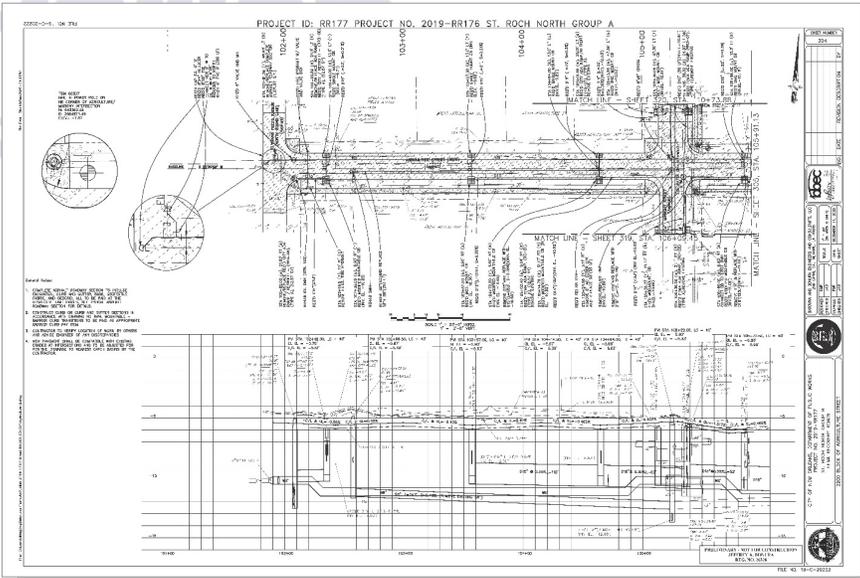
In order to save engineering costs, and at the same time provide the contractor with useable drawings and details, BBEC utilized the Parish’s existing GIS to develop its site plans to identify the work to the contractor for construction, and to eventually develop clear record documents showing all work performed for the likely event of a future audit by FEMA to verify work performed. BBEC also maintained a status map that was published bi-weekly and provided to all interested parties to report on the status of the project.



Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2013 (actual)	\$12,738,071	\$12,738,071

TEC Professional Services Questionnaire

PROJECT NO. 8

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>RR177 – St. Roch Group North B (FRC), City of New Orleans, LA</p> <p>City of New Orleans Department of Public Works 1300 Perdido Street, Suite 6W03 New Orleans, LA 70112 Mr. Ahmed Hamed (504) 658-8021</p>	<div style="background-color: #0056b3; color: white; padding: 5px; border: 1px solid #0056b3;"> <p style="margin: 0;"><u>Applicable Experience</u></p> <ul style="list-style-type: none"> Project Evaluation Project Design Drafting of Technical Plans </div>	<p>BBEC assisted a City of New Orleans Representative to assess the damage along the streets contained in this project. BBEC 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. BBEC used DOTD's HYDRWIN software to design all drainage improvements in the project area. BBEC is also designing 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.</p>
		
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2025 (estimate)	\$8,540,702	\$8,540,702

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Read Blvd. East Group C, Capital Improvement Program, Project No. 2016-RR146 (PW No. 21032), City of New Orleans, LA</p> <p>City of New Orleans Department of Public Works 1300 Perdido Street, Suite 6W03 New Orleans, LA 70112 Brian Fontaine, Construction Project Manager bfontaine@nola.gov (504) 658-8036</p>	<div style="background-color: #0056b3; color: white; padding: 5px; border: 1px solid #ccc;"> <p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> Project Evaluation Project Design Drafting of Technical Plans Development of Technical Specifications Construction Administration </div>	<p>The Read Blvd. East Group C project included all necessary professional design services in connection with the project defined as follows: replacement of roadway pavement, with base replacement, complete with curbs; replacement of sidewalks and drive aprons; subsurface drainage, water, and sanitary sewer installation; and adjustments as required at driveways, at intersecting streets, and at project termini to provide for positive flow of water towards catch basins.</p> <p>BBEC completed the Design, Bidding, and Construction Phases of the project; and the project is currently in its closeout phase. The bid price was \$3,282,480.53.</p> <p>BBEC provided Construction Inspection Services for this project including but not limited to:</p> <ul style="list-style-type: none"> Observing construction at all times while the Consultant Contractor is working critical work items Inspecting, measuring, and appropriately tracking (eligible) work completed for pay requests and provide this information to the City Ensuring work does not adversely affect utilities, adjacent areas and/or property etc. Preparing daily field reports, and or field books Photographing and/or documenting work progress Documenting and coordinating with the City for unforeseen items encountered during construction Coordinating with and monitoring work performed by material testing agency, utilities, and other on-site visitors as required Preparing memorandums or documentation required for field changes Verifying that Construction Contractor is providing adequate traffic control and site safety procedures Preparing incident reports Balancing quantities with the Contractor and City of New Orleans
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2021 (actual)	\$3,792,800	\$510,320

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PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Viola Street Widening LA Hwy 59 East to LA Hwy 1088 (Professional Services Contract No. 05-024), St. Tammany Parish, LA</p> <p>St. Tammany Parish Government Department of Engineering 21454 Koop Drive Mandeville, LA 70471 John Cassisa (985) 898-3075</p>	<div style="background-color: #0056b3; color: white; padding: 5px; border: 1px solid #0056b3;"> <p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> Project Evaluation Project Design Drafting of Technical Plans </div> <p>the LA DOTD.</p> <p>As part of the Conceptual Plan, BBEC included typical cross sections for the roadway based on the existing right of way. BBEC identified and located all existing utilities within the right of way on the plan and identified potential conflicts and suggested possible solutions.</p> <p>The Preliminary Design Plan and Construction Estimate included construction costs for an asphalt roadway, including drainage. Roadside drainage in the design plan was designed for the 25-year storm.</p>	<p>BBEC performed preconstruction engineering services for the Viola Street Widening project from LA Hwy 59 East to LA Hwy 1088. Included in these services was the coordination of land surveys, the development of a conceptual plan, preliminary project phasing and engineer's estimate of construction cost, the development of construction plans, and the securing of all permits required from</p>
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2008 (actual)	\$164,900 (fee)	\$164,900 (fee)

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.		
Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. 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.		
<p>Barowka and Bonura Engineers and Consultants, L.L.C. is an engineering consulting firm specializing in civil engineering design, construction management, and computer consulting services. Our staff has specific experience in the design of roads and bridges, and the ancillary work such as private property issues, drainage systems, flow maintenance, deep excavations, utility construction, coordination with private utility entities, and management of traffic signalization and street lighting installations. 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.</p> <p>BBEC has considerable experience in roadway design, construction, and management on major roadway (concrete and asphalt) projects in majorly trafficked areas. BBEC completed numerous projects through construction throughout residential neighborhoods and high-traffic commercial and industrial areas. The projects included drainage, water, sewer, and roadway construction. 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, sidewalks and driveways connections, utility relocation and coordination, and all incidental work.</p> <p>MINIMUM QUALIFICATIONS:</p>		

TEC Professional Services Questionnaire

1. One Principal who is a professional engineer who shall be registered as such in Louisiana.
This requirement is met by: Jeffrey Bonura, P.E.
2. A professional in charge of the project who is a professional engineer who shall be registered as such in Louisiana with a minimum of five (5) years of experience in the disciplines involved.
This requirement is met by: Jeffrey Bonura, P.E.
3. One employee who is a professional engineer registered as such in Louisiana in the field or fields of expertise required for the project:
This requirement is met by: John J. Housey, Jr., P.E., Madan Kamboj, P.E., and Kevin Forschler, P.E.

1. PROFESSIONAL TRAINING AND EXPERIENCE IN RELATION TO THE TYPE OF WORK REQUIRED FOR THE ROUTINE ENGINEERING SERVICES:

Mr. Jeffrey Bonura, P.E., Sole Member and Supervising Engineer (37 years of experience), will provide quality control and assurance for all assigned projects. He has experience in performing and managing design, bidding, construction (including inspector training and oversight), and as-built drawing phases with over \$50 million for the Jefferson Parish Department of Public Works (streets, drainage) construction projects. In addition, he has managed more than \$100 million in FEMA funded roadway and drainage projects in the last 15 years alone, along with several pump station and levee construction projects in other areas. Mr. Bonura has substantial experience coordinating the work with construction contractors and other engineering firms, as well as local, state, and federal agencies.

In addition to Mr. Bonura:

- **Mr. John Housey, P.E.**, (57 years of experience), recently administered the construction of over \$40 million roadway and drainage improvements for Hurricane Katrina damages in St. Bernard Parish. He is currently working on projects such as Craig Avenue Drainage Improvements and the Westbank Mississippi River Bike Trail in Jefferson Parish, the design for improvements to streets in the St. Roch area of the City of New Orleans, and the design of CN Railroad Culverts in St. Charles Parish.
- **Mr. Madan Kamboj, P.E.** (43.5 years of experience) has been 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.
- **Mr. Kevin Forschler, P.E.**, (9.5 years of experience) has been designing and administering the construction of typical public works projects (sewer, drainage, and roadway); including the design of several roadway, drainage, bike paths, and pump stations.
- **Mr. Matt Hahn, P.E.**, (8 years of experience), has over eight 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.
- **Mr. Ethan Jones, E.I.**, (2.5 years of experience), 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 and

TEC Professional Services Questionnaire

creating plan sets for submittals. Mr. Jones has also done Grant Management where he 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. Mr. Jones has used WaterGEMS to model and analyze water systems for St. Tammany Parish. Additionally, Mr. Jones worked on aeration analysis for Flow Eq Basins. Mr. Jones is currently working on raw water intake for St. John the Baptist Parish.

- **Mr. Ashton Bonura** (10 years of experience), is a recent graduate from the University of New Orleans where he obtained a Civil and Environmental Engineering degree in December 2022. He has assisted the licensed engineers within the company for several years prior to earning his degree. Mr. Bonura has works on projects that involve water and wastewater treatment, lift station design, roadway rehabilitation and drainage improvements, and sanitary landfill permit renewals.
- **Mr. Pete Foret** (34 years of experience), is a multi-discipline AutoCAD drafter and designer with experience in the Civil, Structural, Architectural, Electrical and GIS/Mapping fields. He has a combined 31 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.

2. SIZE OF FIRM, CONSIDERING THE NUMBER OF PROFESSIONAL AND SUPPORT PERSONNEL REQUIRED TO PERFORM THE TYPE OF ROUTINE ENGINEERING TASKS INCLUDING PROJECT EVALUATION, PROJECT DESIGN, DRAFTING OF TECHNICAL PLANS, DEVELOPMENT OF TECHNICAL SPECIFICATIONS AND CONSTRUCTION ADMINISTRATION:

BBEC staff consists of 26 (including 6 licensed civil/structural engineers) 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 projects through completion, making sure that all requirements of the projects are met. We have sufficient licensed and experienced engineers, junior engineers, technicians, and GIS and drafting support to effectively perform work with its existing staff.

3. CAPACITY FOR TIMELY COMPLETION OF NEWLY ASSIGNED WORK, CONSIDERING THE FACTORS OR TYPE OF ROUTINE ENGINEERING TASK, CURRENT UNFINISHED WORKLOAD, AND PERSON OR FIRM'S AVAILABLE PROFESSIONAL AND SUPPORT PERSONNEL:

BBEC has substantial experience in working on many public works projects, streets and otherwise, in Jefferson Parish. We have worked as a company for the Parish for 23 years, and Mr. Bonura worked an additional 10 years on Parish projects prior. Our experience includes performing engineering consulting and funding assistance to Jefferson Parish and the surrounding parishes.

Our wealth of experience with public works type projects in Jefferson Parish allows us to provide the Parish with the necessary 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.

Regarding our specific workload, we have recently submitted 100% plans for about \$45M in roadway construction projects in a neighboring parish, freeing up sufficient personnel to work on any project assigned. As such, we continuously complete projects and win new work and manage our projects accordingly to finish every project in time.

Mr. Bonura will manage the project through completion, making sure that all requirements of the project are

TEC Professional Services Questionnaire

met. BBEC, and have sufficient licensed and experienced engineers, junior engineers, technicians, and GIS and drafting support to effectively perform work with its existing staff and meet any schedules reasonably set by the Parish.

4. PAST PERFORMANCE BY PERSON OR FIRM ON PARISH CONTRACTS:

As noted throughout this Professional Services Questionnaire, BBEC and its staff members have an excellent history of service to Jefferson Parish, 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 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 experience includes project evaluation, design engineering, including schematic design, surveys, preliminary design, and final design, environmental study, drafting of technical plans, development of technical specifications, construction administration/management, and construction inspection services for the repair of streets, sidewalks, bikeways, streetlights, traffic signals, drainage systems, bridges, utilities, and other public works infrastructure features parish-wide. BBEC's reputation for performance in Jefferson Parish is second to none.

BBEC has been performing Design Engineering including all aspects of preliminary design and final design services and Construction Management related to enhancement to or reconstruction of roadways with curbs, gutter, sidewalks, driveways, handicapped ramps, and intersecting streets, the construction of new roadways dedicated bike lanes and bike facilities/infrastructure and walkways subsurface and/or surface drainage systems, water, and sanitary sewer installation, modification, adjustments, and repairs for over 20 years. Our expansive experience is inclusive of

- performing detailed hydraulic analysis of drainage systems, subsurface and at grade along the gutters and at the catch basins
- performing detailed engineering design in conformance with all normal and Parish specified design criteria and guidelines (BBEC is intimately familiar with the Parish's design guidelines and standard details)
- performing construction administration and resident inspection services to ensure that the projects are constructed timely, in accordance with the contract documents, and with the least amount of impact to the general public and adjacent properties
- ensuring a positive flow of water from the private property to the gutters, and along the gutters toward the catch basins
- developing a conceptual plan or design and cost estimates
- preparing, submitting, and administering grant applications
- managing drainage asset cleaning, closed circuit television (CCTV), and engineering assessment using GIS and other database tools

We have performed engineering services inherent to the design projects including

- landscaping
- bridge inspection and structural assessment
- multi-model level of service analysis and traffic studies for roadways
- traffic and pedestrian signalization
- vehicular and pedestrian signage
- public art
- pocket park improvements

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Our personnel's project experience demonstrates their individual ability to ensure compliance with various design guidelines and standards, perform constructability reviews, participate and add value to project meeting and inspections during all phases of a project, and assist in reviewing contract changes during all phases of the project.

BBEC has significant experience in Bidding, Construction Management, Inspection, and As-Built phases of work enabling us to promote the best methods of project management. Our experience also includes applying the latest computer technologies to manage the project's schedule, budget, and tracking of documentation, a primary function of the construction related phases of the work.

As Construction Manager on previous and current projects, Mr. Bonura makes sure that complete approved plans are submitted timely to the Purchasing Department, plan sales go smoothly and are properly documented, bidders' questions and comments are responded to promptly by addendum, and that the bids accepted are responsive and correct. He performs the typical construction management duties and ensures that the Owner receives a complete set of well-documented as-built drawings. Over the course of the years, Mr. Bonura became familiar with resolving construction-related problems such as public relations and complaint resolution, client satisfaction and change order negotiations. Mr. Bonura has experience with litigation with residents due to contractor activities, litigation with the contractors to resolve claims and other disputes, liquidated damage assessment, and litigation with bonding companies to complete the work of a defaulted contractor. He is experienced in resolving citizen's complaints.

Previous relevant projects completed by BBEC specifically for Jefferson Parish include:

- Causeway Blvd Widening (Veterans Blvd to Lake Pontchartrain)
- Road Bond Parish-Wide Improvement Program
- Veterans Boulevard Resurfacing
- Ames Boulevard Roadside Drainage Improvements
- West Esplanade Resurfacing Project
- Westbank Mississippi River Levee Bike Path, Segments 2, 3, and 4
- Lakefront Pedestrian Path (Suburban Canal to Causeway)
- Woodmere Boulevard Panel Replacement
- Westbank Mississippi River Bike Trail, Around Avondale Shipyard, (2017-059-RBP)
- Craig Avenue Drainage Improvements, Public Works Project No. 2019-022-DR
- Canal Monumentation Program
- Lake Avenue and Carrollton Avenue (Bucktown) Drainage Study
- Cleary Improvements (Veterans Blvd. to West Esplanade Ave.)
- Harvard Avenue Drainage Improvements, Project No 99-046-DR and 99-046A-DR, (Funding Source: Community Development Block Grant)
- Waggaman Area Drainage Study (Project No. 2011-03-DR)
- 2014 Hazard Mitigation Assistance (HMA) Grant Management Services
- Technical Assistance for Floodplain Management, Community Rating System and Hazard Mitigation Related Services (Project No. 0352)
- Drainage Pump Station Fuel Storage Secondary Containment
- Labarre Road Back-to-Back U-Turn Intersection Improvements (West Esplanade Avenue/North Labarre Road)
- Manson Ditch and Lower Kraak Outfall System Improvements, Jefferson Parish, LA, 06/2004-09/2008
- West Napoleon Avenue Improvements, Cleary Avenue to Severn Avenue, (LA DOTD Project No. 742-07-0088)
- Digital Flood Insurance Rate Map

TEC Professional Services Questionnaire

- Avondale/Bridge City Drainage Evaluation (Area between the Mississippi River and the Union Pacific Railroad, from Huey P. Long Bridge to Avondale Garden Road)

BBEC performed many other engineering projects for Jefferson Parish unrelated to streets; therefore, they are not listed.

5. LOCATION OF THE PRINCIPAL OFFICE:

BBEC's main office is located at 209 Canal Street in Metairie which is where the work will be performed.

6. ADVERSARIAL LEGAL PROCEEDINGS BETWEEN THE PARISH AND THE PERSON OR FIRM PERFORMING PROFESSIONAL SERVICES, IN WHICH THE PARISH PREVAILED, OR ANY ONGOING ADVERSARIAL LEGAL PROCEEDINGS BETWEEN THE PARISH AND THE PERSON OR FIRM PERFORMING PROFESSIONAL SERVICES:

BBEC's firm nor staff has had any litigation with Jefferson Parish.

7. PRIOR SUCCESSFUL COMPLETION OF PROJECTS OF THE TYPE AND NATURE OF ROUTINE ENGINEERING SERVICES, AS DEFINED, FOR WHICH FIRM HAS PROVIDED VERIFIABLE REFERENCES:

We offer the following references that can attest to our previous work history regarding streets projects.

For Jefferson Parish streets projects completed by BBEC inclusive of Cleary Avenue (Veterans Blvd. to West Esplanade Avenue), Causeway Blvd Widening (Veterans Blvd to Lake Pontchartrain), Labarre Road Back-To-Back U-Turn Intersection Improvements (West Esplanade Avenue-North Labarre), Road Bond Parish-Wide Improvement Program, Veterans Boulevard Resurfacing, and Harvard Avenue Drainage Improvements we offer the following references:

- **Mark Drewes, Director of Public Works • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 904, Jefferson, LA. 70123 • 504-736-6783**
- **Mitchell Theriot, P.E., Director of Drainage Department • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 907, Jefferson, LA. 70123 • 504-736-6753**
- **Neil Schneider, CCM, P.E., Director of Capital Projects • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 906, Jefferson, LA. 70123 • 504-736-6833**

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

- **Miles Bingham, P.E., Director of Public Works • St. Charles Parish • 15045 River Road, Hahnville, LA. 70057 • 504-736-8753**
- **Louis Pomes, Parish President • St. Bernard Parish • 8201 W. Judge Perez Drive, Chalmette, LA 70043 • 504-278-4227**
- **Ken Dugas, Parish Engineer • Plaquemines Parish • 333 F. Edward Hebert Blvd., Bldg. 500, Plaquemines, LA 70037 • 504-297-5343**

To simplify the submittal, the following projects for BBEC are listed in section L:

- West Esplanade Resurfacing Project, Jefferson Parish, LA
- Cleary Improvements (Veterans Blvd. to West Esplanade Ave.) (Council District 5), Public -Works No.

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2017-014-RBP, Jefferson Parish, LA Hurricane Katrina Damage Roadway Restoration, Project No. 105, St. Bernard Parish, LA

- Harvard Avenue Drainage Improvements, Project No 99-046-DR and 99-046A-DR, (Funding Source: Community Development Block Grant), Jefferson Parish, LA
- Veterans Boulevard Resurfacing, Jefferson Parish, LA
- Hurricane Katrina Damage Roadway Restoration, Project No. 110, St. Bernard Parish, LA
- Hurricane Katrina Damage Roadway Restoration, Project No. 105, St. Bernard Parish, LA
- Labarre Road Back-to-Back U-Turn Intersection Improvements (West Esplanade Avenue/North Labarre Road), Jefferson Parish, LA
- RR177 – St. Roch Group North Group B (FRC), City of New Orleans, LA Road Bond Parish-Wide Improvement Program (Public Works Project No. 98-026-RBI), Jefferson Parish, LA
- Read Blvd. East Group C, Capital Improvement Program, Project No. 2016-RR146 (PW No. 21032), City of New Orleans, LA
- Viola Street Widening LA Hwy 59 East to LA Hwy 1088 (Professional Services Contract No. 05-024), St. Tammany Parish, LA

Additional Relevant Project Listing (not in section L):

ROADWAY AND DRAINAGE

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

BBEC is currently providing Closeout services for the project which consists of removal of curbs, cleaning and resealing existing longitudinal and transverse joints, concrete pavement patching, concrete curb, and where necessary new ADA ramps to be installed along Woodmere Boulevard. The project also includes the necessary temporary traffic control, pavement striping, and replacement for traffic loops. The overall project length is 1.150 miles and is located from its intersection with Eastview Drive to its intersection with Lapalco Boulevard. BBEC also developed street panel layout plans so the work could be adequately tracked in LDOTD's format. Other duties included all field documentation, completing daily diaries, processing Change Orders, creating As-built plans, preparing monthly pay estimates, coordinating between Jefferson Parish and State for plan changes, completing payroll certifications, and is currently preparing final package including form 2059. These services are being provided in accordance with DOTD's Standards and Procedures.

Lakefront Pedestrian Path (Suburban Canal to Causeway), State Project No. H.011780, JP Project No. 2015-010-RB, Jefferson Parish, LA, 07/2019-Present

BBEC is performing Construction Administration and Inspection (CE&I) services for the project under a contract with Jefferson Parish, administered by LaDOTD. The project includes excavation and embankment, 6,226 square yards of class II base course, 1,152 tons of superpave asphalt including the pedestrian path, turnouts and drives, temporary traffic control, and related sod, seeding and embankment. The overall project length is 1.322 miles and is located on the Lake Pontchartrain Levee adjacent to the existing bike path from Lake Villa Drive to West of the North Causeway Boulevard Bridge. Other duties include all field documentation, completing daily diaries, BBEC is responsible for all aspects of CE&I for the project, including contract startup; shop drawing review; coordination with LaDOTD, Jefferson Parish, and the SLFPA (levee district); maintaining the project documents in Site Manager; review payroll in DOTD's AASHTO Ware application; contractor pay estimates; change orders; quality assurance testing; work acceptance; and contract closeout (2059).

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

BBEC is currently working on detailed plans and specifications for the construction of the 2.5 mile bike path, part of which is on the top of the Mississippi River levee and the balance of which in on the shoulders of two state highways. A key component to BBEC's designs on the levee section is to maintain the integrity of the levee and while constructing the base and asphalt bike path section with a limited width of top of levee. For the state highway portion of the project, part of the project has asphalt shoulders in place, therefore only pavement markings and signage are required. In other locations, roadway widening and required subsurface drainage is necessary to install the bicycle travel lanes.

BBEC developed a hydraulic and hydrologic model to drain a 220 acre area. BBEC designed the drainage for the area, which includes a series of canals with 48-inch and double 48-inch culverts.

BBEC is currently coordinating its work with the LDOTD, the West Jefferson Levee District, the USACE through the levee district, and Union Pacific Railroad to obtain the necessary permits to perform the project. BBEC is also working with Jefferson Parish to determine the required right-of-way (ROW) so it could be acquired from the adjacent property owner(s).

Once the design is complete, BBEC will perform bidding services, construction administration services, and resident inspection services for the construction project.

Williams Boulevard/Vintage Drive Roadway Drainage and Enhancement Improvements, West Side of Williams Boulevard (Public Works Project No. 2014-001E-CIP), City of Kenner, LA, 02/2015-03/2017

The Williams Boulevard/Vintage Drive Roadway, Drainage and Enhancement Improvements project included all basic services required to complete the project including all necessary services in the performance of Preliminary Design, Design, Bidding, Construction and Record Drawing phases.

BBEC was sub-consultant to ECM Consultants, Inc. on this project. In this capacity, BBEC provided Roadway Design services in connection with this project in each of the required phases. Specifically, BBEC provided engineering and design services for all roadway services associated with the new U-Turn Lane for WB-50 on the West Side of Williams Boulevard at Vintage Drive. The roadway design services provided by BBEC included:

- Asphaltic concrete roadway for a new U-turn lane including transitions and tie-in to existing roadways on both sides of the canal
- New concrete curb including transition and tie-in to existing
- Drainage System Design associated with new U-turn lane including tie-ins to existing drainage system (pipes and structures)
- Plan for concrete Median Island, including walks and handicapped ramps.
- Utility adjustments necessary for the new U-turn lane and Median Island
- Summary of estimated quantities
- Plan and profile sheets
- Pavement Striping and Permanent Traffic Signs Plan
- Preliminary and Final Construction Cost Estimates

Erlanger Road Median Improvements, Vintage Dr. to Lake (Project Number: 2014-001D-CIP) City of

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Kenner, LA, 12/2015-10/2016

BBEC provided all necessary inspection services for the Erlanger Road Median Improvements for Vintage Drive to Lake which included the following:

- Reviewed progress schedules, schedules of shop drawing submissions and schedule of values prepared by contractor and consulted with the Program Manager concerning their acceptability.
- Arranged schedule of progress meetings and other job conferences, as required in consultation with Program Manager and notified those expected to attend. Attended meetings and maintained and circulated copies of minutes thereof.
- Served as the Program Manager's liason with the contractor, working principally through the contractor's super-intendant and assisted him in understanding the intent of the contract documents. Assisted the Program Manager in serving as the Owner's liason with the Contractor when the Contractor's operations affected the Owner's on-site operations.
- Coordinated with owners of utility companies (private and public) and Program Manager the need for relocation/adjustment/de-energization of facilities (as necessary) to clear the site for construction.
- Assisted in obtaining from the Client additional details when required at the job site for proper execution of the work.
- Submitted shop drawings to the Design Engineer for review and approval.
- Advised the Program Manager and Contractor of the commencement of any work requiring a shop drawing or sample submission that had not been approved by the Design Engineer.
- Conducted on-site observations of the work in progress to assist the Program Manager in determining if the work was proceeding in accordance with the contract documents.
- Reported work believed to be unsatisfactory, faulty, or defective or did not conform to the contract documents or did not meet requirements of any inspections, tests or approvals required to be made, or had been damaged prior to final payment to the Program Manager.
- Advised Program Manager when work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
- Verified that tests, equipment and systems startups and operating and maintenance instructions were conducted as required by the contract and in the presence of the required personnel. Observed, recorded and reported to Program Manager appropriate details relative to the test procedures and startups.
- Accompanied visiting personnel representing public or other agencies having jurisdiction over the project, recorded the outcome and reported to the Program Manager.
- Coordinated any Requests for Information or Clarification from the Contractor to the Design Engineer and Program Manager.
- Considered and evaluated Contractor's suggestions for modifications in drawings or specifications and report them with recommendations to the Program Manager.
- Reviewed applications for payment with the contractor for compliance with the established procedure for their submission and submitted with recommendations to the Program Manager.
- Assisted Program Manager with all necessary documentation required for construction change orders, as necessary.
- Verified 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 provided to the program manager.
- Conducted inspection with the Design Engineer, Program Manager, Owner, and Contractor and prepared a substantial completion list of items to be completed or corrected. Verified all substantial completion items were completed or corrected prior to Certificate of Completion being issued.

TEC Professional Services Questionnaire

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

The Ames Boulevard Rehabilitation (West Bank Expressway to Happy Street) project includes all necessary professional design services in connection with the project defined as follows: Mill existing asphalt pavement over existing concrete roadway; replace damaged concrete roadway panels, associated underlying base course, and concrete curb as necessary; clean and seal existing concrete joints; overlay existing concrete roadway with new asphalt; adjust existing public utility facilities (water, sewer, drainage) as necessary to match finished roadway grades and comply with current ADA guidelines; and install permanent striping.

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

BBEC assisted a City of New Orleans Representative to assess the damage along the streets contained in this project. BBEC 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. BBEC used DOTD's HYDRWIN software to design all drainage improvements in the project area. BBEC is also designing 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.

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

BBEC assisted a City of New Orleans Representative to assess the damage along the streets contained in this project. BBEC 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. BBEC used DOTD's HYDRWIN software to design all drainage improvements in the project area. BBEC is also designing the 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.

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

The project includes increasing the capacity and improves the stability of Congressman Hebert, Creely, and Bluebird Canals, that consists of 11,600 linear feet of open canal and culverts ranging from 4-foot bottom width to 16-foot bottom width channels. BBEC 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 performed a hydrologic and hydraulic analysis of the existing system to evaluate the entire area for the 5-year, 10-year, and 25-year storms. 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. BBEC obtained the necessary USACE, LDNR, SLFPA-E, and CPRA permits required to construct the contract. 90% Final Designs have been submitted to the client.

Mid-City Street Improvements (Project No. 2012-FEMA-4G-1), City of New Orleans, LA, 11/2012-12/2020

BBEC performed engineering design services for the rehabilitation/reconstruction of several local roadways

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that were damaged from Hurricane Katrina including identifying storm related to areas within the right-of-way and damages to subsurface utilities, prepared detailed Scoping Reports capturing each damaged area with photographs, descriptions, justifications and quantities; created an in-depth tracking system to detail the locations, scope and eligibility of each item, developed drawings for FEMA eligibility approval along with corresponding support documentation for Federal funding, performed construction cost estimates, and prepared Construction Specifications. The current construction cost estimate is \$ 8.45 million.

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

St. Charles Parish selected BBEC to perform professional engineering services for projects associated with the parish's roads and streets. Typical projects include road base work, patching, pothole repairs, overlays, shoulder/curb repair, and assisting the parish in managing its annual road maintenance program.

Professional engineering services provided include, but were not limited to:

- Providing a conceptual design report consisting of alternatives and recommendation to accomplish the project along with a preliminary cost estimate
- Engineering services consisting of preliminary and final engineering design reports including cost estimates, specifications, and drawings, bidding management, construction administration, and providing "as built" drawings
- Additional services, as needed, for measuring existing conditions, topographical and field surveys, permits and servitudes, construction project representation and quality assurance
- Feasibility studies and analysis that may also require aerial mapping, CADD/GIS compatible drawings, plans, and specifications
- Design and construction management of Parish road projects through various LA DOTD funding sources and to the standards of LA DOTD; and
- Performing LA DOTD survey, street ranking, and preparing bid specifications within 30 days after contract awarded.
- Providing Construction Inspection Services for 31 streets containing 38,000 yards of mill and overlay work and 2100 tons of full depth asphalt pavement patching.

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

The project consisted of the complete replacement of about 4,200 linear feet of 72-inch to 96-inch drainpipe, with drainage structures and smaller lateral lines to collect stormwater from existing roadway catch basins. The project also included the replacement of roadway intersections where the drain line crosses streets. The project bid was \$3.9 million and the work is complete. BBEC performed all design, bidding, and is performing the construction services for the project. In addition to the normal design services, BBEC obtained a Coastal Use Permit determination, and USACE wetlands permit determination, and a SLFPA-E (regional levee district) permit for the project.

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

This plan used a comprehensive process that involved public participation, professional collaboration, and additional research. To obtain public input the project team held workshops in three areas of the parish and administered a survey to identify the demands of residents and facility users. Industrial company representatives also voiced their security concerns about pathways that could be placed in close proximity to their sites. Additional meetings with parish officials also contributed to the plan. Three main goals for improving pedestrian and bicycle networks emerged including improving safety, increasing transportation

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options, and spurring economic developments. BBEC's role included attending the workshops and creating a proposal for St. Charles Parish council with an adoptable ordinance for the creation of a complete streets program. Using GIS data from Census, BBEC modeled areas where sidewalks for pedestrians and trails for cyclists were needed. BBEC also mapped empirical data showing fatalities and injuries creating hot spots for targeted development. BBEC provided cost estimates for the construction of the proposed bike paths in the study.

Hurricane Katrina Damage Roadway Restoration, St. Bernard Parish, LA, 09/2005-08/2017

Under its initial role as Program Manager of Public Works Projects, BBEC assisted St. Bernard Parish in negotiations with FEMA to support eligibility of roadway, driveway, and sidewalk damage in St. Bernard Parish allowing FEMA to write over \$150 million in project worksheets to fund repairs to the damaged facilities. In the negotiations, BBEC demonstrated to FEMA that not only did the pavement receive storm related damage, but the base and subbase received damage, as well.

As a result of BBEC's familiarity with the Parish's roadways, and BBEC's understanding of FEMA's policy and the Stafford Act, St. Bernard Parish selected BBEC to perform the engineering services for 50% of the Parish's damaged roadways.

BBEC designed, managed through construction and performed resident inspection services on streets and drainage for 18 separate construction contracts ranging from \$1,000,000 to \$11,000,000, with a combined total of over \$100 million. The construction contracts were established as work order based, unit priced contracts.

BBEC performed all Design, Bidding, Construction Administration, and Resident Inspection services for the St. Bernard Parish Roadway 2010-105 roadway restoration project. The project included the repairs of 43 residential streets consisting of full depth patching of 38,212 square yards of PCC roadway pavement; the patching, milling and overlay of 8,377 square yards of asphalt pavement and repairs on connection to adjacent concrete drives, sidewalks, and ADA ramps.

- inspected the streets to identify all needed repairs and utilized the Parish's GIS and aerial photography scaled drawings to develop plans for the work
- developed unit priced work-order based construction bid packages based on Parish and LDOTD standard details and specifications, and developed additional details and specifications where necessary
- performed bidding and contract award services
- performed normal construction administration services regarding contractor schedule, RFIs, shop drawings, schedules, invoices, and plan changes
- perform plan-in-hand site visits with the contractor to ensure a clear understanding of the work required
- perform resident inspection services to verify the work complied with the contract documents, was accurately accounted for in the invoices, and other typical services performed by a resident inspector
- coordinated the work with the Parish's materials testing lab to ensure that the work was properly installed and tested, and reviewed the testing lab's invoices for compliance with their respective contract with the Parish
- developed the necessary connection details to adjacent pavement when the adjacent pavement was not constructed to current standards or otherwise not suitable for a standard connection
- documented additional damage (buried or increased since initial survey) and addressed accordingly

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- developed and maintained tracking schedules and/or maps for Parish management and/or public awareness
- kept the Parish informed about the project through attendance at progress meetings and preparing status reports
- developed record documents and performed a complete Construction Contract – Final Audit to ensure the project records were accurate and complete

In order to save engineering costs, and at the same time provide the contractor with useable drawings and details, BBEC utilized the Parish's existing GIS to develop its site plans to identify the work to the contractor for construction, and to eventually develop clear record documents showing all work performed for the likely event of a future audit by FEMA to verify work performed. BBEC also maintained a status map that was published bi-weekly and provided to all interested parties to report on the status of the project.

The project list includes:

Project No.	Construction Cost	#of Streets	BBEC Fee
07-836/07-837	\$3,393,777.42	22	\$1,525,265.28
08-841	\$7,441,280.04	49	\$1,238,587.70
3233A	\$4,713,364.72	39	\$892,947.66
3233B	\$7,331,154.09	26	\$886,360.28
18581A	\$3,671,959.53	8	\$518,574.62
18581B	\$3,673,691.13	3	\$476,504.99
18583A	\$1,499,608.55	6	\$428,338.08
18593B	\$2,703,762.58	4	\$507,895.45
18590A	\$3,413,262.49	10	\$634,647.51
18590B	\$4,387,638.18	10	\$718,019.10
18590C	\$4,085,902.02	8	\$605,464.87
18590D	\$3,716,665.40	6	\$512,699.76
104	\$9,851,368.31	33	\$1,704,457.77
105	\$11,006,223.16	43	\$1,731,847.62
106	\$8,067,207.02	24	\$1,408,007.62
110	\$9,814,646.28	48	\$1,401,357.17
107	\$3,699,032.20	11	\$547,353.70
102	\$9,815,822.77	86	\$1,443,245.05
TOTALS	\$102,286,365.89	436	\$17,181,574.23

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Gentilly Woods Street Improvements (Project No. 2012-FEMA-2F1-1), City of New Orleans, LA, 01/2013-07/2016

The Gentilly Woods Street Improvement project included all professional engineering design services for FEMA-eligible paving street repairs on streets in the area bounded by Chef Menteur Hwy./Gentilly Blvd., Peoples Ave., the Dwyer Canal, and the Industrial Canal/Inner Harbor Navigation Canal. Plans and specifications for the reconstruction of these roads included the following design features: roadway pavement complete with curbs; a base for the roadway pavement; subsurface drainage, water, and sanitary sewer installation; adjustments as required at driveways and at intersecting streets; installation of ramps for the handicapped at intersections.

During the Survey and Scoping Phase, BBEC acquired all information on the required area of the project, including topographic surveys and information on existing and proposed utilities. A Project Scope Report was prepared based on the results of the survey and programming documents provided by the Department of Public Works, which included an analysis of the constructability, cost, and time schedule. During the Preliminary Design Phase, BBEC assisted the engineer by incorporating approved FEMA eligible work into a plan/profile sheet utilizing the City of New Orleans Standards and Details and preparing an initial cost estimate.

BBEC completed the preliminary and final design phases which included the preparation of complete final construction plans, specifications, bid documents, and construction cost estimate. This project has not yet been selected for construction by the City of New Orleans.

Manson Ditch and Lower Kraak Outfall System Improvements, Jefferson Parish, LA, 06/2004-09/2008

The scope of BBEC's work was to provide full engineering services, including evaluation of alternatives, preliminary design, final design, bidding, construction administration, resident inspection, and as-built drawing services, for the improvements to the Manson Ditch outfall into the West Metairie Avenue Canal. The project consisted of hydraulic modeling of drainage structures, design of drainage systems composed of cast-in-place concrete structures and pipe systems, connection to existing culverts, transition to existing canal banks, utility relocations, roadway and other site restoration, traffic maintenance and signal design, pavement striping, and all incidental work. Currently two large diameter drain lines (60-inch and 72-inch diameter) discharge into the West Metairie Canal culvert crossing under Cleary Avenue. The purpose of the project was to remove the connection and discharge the two drain lines directly into the canal, requiring an outfall structure. The outfall structure is designed to accept the two drain lines, connect to the existing two 96-inch diameter culverts, and be able to transition to a future 16-foot wide u-channel. Temporary bank stabilization is required until the future u-channel project is completed. Traffic flow on the two major arterial streets must be maintained at all times through construction of the project.

Paris Road Resurfacing Project LA 46 to Chalmette Ferry Landing (LA DOTD Project No. 704-44-0018), St. Bernard Parish, LA, 06/2004-12/2006

The Paris Road Resurfacing Project included the design of improvements to cold plane, overlay, and restripe the northbound and southbound lanes of Paris Avenue between LA 46 and the Ferry Terminal on the Mississippi River, a distance of approximately 2,500 feet in St. Bernard Parish, Louisiana.

BBEC was selected for the performance of all pre-construction engineering services necessary for the preparation of complete plans, specifications and estimates for the proposed improvements.

BBEC was responsible for developing construction plans from available aerial photography, performing field

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verification surveys to ensure accuracy of the aerial photographs, and overseeing the geotechnical consultant to design the asphalt roadway mill and overlay project for Paris Road between St. Bernard Highway (LA Hwy 46) and the Chalmette Ferry Landing. The designs also included roadway widening, asphalt pavement patching, temporary traffic control, some side road drainage, and connecting to existing driveways. The project was designed so that the roadway should remain in service while construction was being performed.

Westbank Mississippi River Levee Bike Path, Segments 2, 3, and 4, (Project No. DOTD PN: 744-026-019 FAP NO: ENH-2601(506)), Jefferson Parish, LA, 07/1999-10/2006

BBEC was hired to perform the engineering services on a 13 mile stretch of bike path along the Mississippi river levee. BBEC worked with the local Regional Planning Commission to divide the proposed project into smaller subprojects to pursue federal funding. Federal funding was obtained for one of the segments. The segments and scopes of work performed for each segment are:

BBEC assisted LDOTD in the bid process addressing all bidder questions relative to the plans and technical specifications. BBEC performed construction management and resident inspection services for the project, coordinating the work with the contractor, parish, levee district, and LDOTD.

Westbank Mississippi River Levee Bike Path, Segment 2, Bridge City to Westwego (5 miles), Jefferson Parish, LA, 07/1999-12/2003

BBEC developed the Transportation Enhancement fund application, which according to LDOTD counts as the Stage 0 Feasibility Study, for the Parish to install 7 mile section of bike path on the crown of the Mississippi River levee. The application included utilizing existing aerial photography and GIS information to develop preliminary plans and a preliminary construction cost estimate.

BBEC prepared detailed plans and specifications for the construction of the 7 mile, primarily 10-foot wide asphalt bike path. A key component to BBEC's designs was to maintain the integrity of the levee and while constructing the base and asphalt bike path section with a limited width of top of levee. BBEC designed its sections so that when the top of levee elevation increased, that additional levee material was utilized to maintain the needs slope to the bottom of the levee. BBEC also designed rest areas on top the levee with benches, trash receptacles, and bike racks. Again, BBEC designed the necessary earthwork to add these facilities to an existing narrow levee top. In its designs, BBEC included ADA compliant ramp details to access the bike path, temporary and permanent signage associated with accessing the path from a state highway and addressing conflicts with various levee utility crossings and structures while maintaining ADA slopes. BBEC coordinated its work with the LDOTD, the West Jefferson Levee District, and the USACE through the levee district.

Westbank Mississippi River Levee Bike Path, Segment 3, Westwego to Harvey Canal Lock (3.5 Miles), Jefferson Parish, LA, 07/2004-10/2006

BBEC developed the Transportation Enhancement fund application, which according to LDOTD counts as the Stage 0 Feasibility Study, for the Parish to install a 3.5 mile section of bike path on the crown of the Mississippi River levee. The application included utilizing existing aerial photography and GIS information to develop preliminary plans and a preliminary construction cost estimate.

The preliminary plans identified various conflicts with existing structures and utility crossings on the levee, and potential methods to address the conflicts so costs could be budgeted. The preliminary plans also included preliminary access ramps to ADA standards, again, for cost budgeting purposes.

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Westbank Mississippi River Levee Bike Path, Segment 4, Around Avondale Shipyard to Bridge City (2.5 miles), Jefferson Parish, LA, 07/2004-10/2006

BBEC developed the Transportation Enhancement fund application, which according to LDOTD counts as the Stage 0 Feasibility Study, for the Parish to install 2.5 mile section of bike path intended for the crown of the Mississippi River levee. Since the existing Avondale Shipyards contained the river levee, the bike path was routed around the shipyards along La. Hwy. 541 and La. Hwy. 18 to avoid the facility. The application included utilizing existing aerial photography and GIS information to develop preliminary plans and a preliminary construction cost estimate.

The preliminary plans identified various conflicts with existing drainage ditches, traffic control, railroad crossings, structures, and provided preliminary details to address each conflict so that budget costs could be developed for the project. The preliminary plans also included preliminary access ramps to ADA standards to connect the lower bike path to adjacent bike path sections on top the levee, again, for cost budgeting purposes.

Vintage Street Bridge at Duncan Canal, City of Kenner, LA, 02/2005-08/2006

The project consisted of the construction of a new cast-in-place concrete bridge and the installation of a 36-inch diameter water line canal crossing.

Road Bond Parish-Wide Improvement Program (Public Works Project No. 98-026-RBI), Jefferson Parish, LA, 04/1998-08/2006

As a member of the Jefferson Parish Roads Program Management Team, BBEC was responsible for coordinating several road construction projects between Jefferson Parish and the design consultants, ensuring timely progress of the projects and maintaining the quality and standards of the work. BBEC was also responsible for maintaining computerized project schedules and an on-line reporting system for all projects in the program. The types of projects managed by BBEC included concrete box culvert construction, roadway widening, new roadways, bridge construction and rehabilitation, and all drainage and other utilities associated with the project.

- **West Metairie/Houma Boulevard U-Turn # 98-045-RBI (\$1,415,219)**

Served as Program Manager during construction. Project consisted of installing a 250 ft. triple-barrel concrete box culvert in the W. Metairie Ave. canal, then construction of an asphalt U-turn above it (removed old bridge at Houma Blvd.). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated the replacement of two existing lanes to ensure the proper drainage of run-off from the U-turn. Assisted the Construction Engineer with a redesign of the U-turn elevations so that the concrete curb & gutter sections cleared the top of the box culvert. Coordinated requests by the Parish Drainage Department to modify the in-place sheet pile to channel the canal flow. Reviewed and marked-up As-built drawings to reflect what was installed and constructed.

- **West Metairie/North Lester Intersection Improvements SPN # 98-044-RBI (\$1,745,586)**

Served as Program Manager during construction of this project. Project consisted of installing a 255 ft. triple-barrel concrete box culvert in the W. Metairie Ave. canal, then construction of an asphalt U-turn above it (along with turning radius improvements on two near-by intersections). Monitored the

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construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Assisted the Construction Engineer with problems that arose with the Contractor (did not follow his own schedule, road closures without proper notice, disregard for parish guidelines). Dealt with complaints from residents and local officials that were generated due to the actions of the Contractor (improper installation of steel sheeting, did not follow their own procedure for canal excavation which lead to canal bank & roadway failures). Coordinated the hauling of excavated canal material with the Contractor and the Parish storage facility. Met with parish officials and Construction Engineer regarding the improvements made at near-by intersections that cross the same canal (repairs to incidental paving and sidewalks without disturbing the sensitive canal banks and headwalls).

- **West Metairie/Severn Avenue Improvements SPN # 98-043-RBI (\$1,101,704)**

Program Manager during construction. Project consisted of widening Severn Ave. from two-lanes to four-lanes (with two lanes serving as turn lanes) as it intersected with an existing four-lane roadway (including curb & gutter, widening of existing roadway, milling of asphalt and overlay, sub-surface drainage). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Monitored the Contractor to make sure traffic flowed smoothly through this heavily traveled intersection. Coordinated with the Contractor to alleviate construction generated concerns of local residents (access to driveways, standing water on roadway, dust control, etc.). Attended meetings with Parish officials, Traffic Dept. and Construction Engineer to make modifications to the planned traffic signalization. Reviewed and marked-up As-built drawings to reflect what was installed and constructed. (\$1,101,704.00)

- **Whitney Avenue Improvements, West Bank Expressway to Stumpf Boulevard SPN # 98-031-RBI (\$9,103,724)**

Served as Program Manager during construction of this project. Project consisted of closing the Whitney Ave. Canal with several concrete box culverts (triple-barrel 433 feet, double-barrel 550 feet, single barrel 2825 feet) to enclose the canal in order to improve the existing two-lane roadways on each side of the canal and add U-turns in various locations (including curb & gutter, roadway base repair, milling of asphalt and overlay, sub-surface drainage, traffic signalization). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Assisted the Contractor with his coordination with another near-by construction operation (98-030-RBI). Coordinated the hauling of excavated canal material with the Contractor and the Parish-operated landfill to use for cover material. Assisted the Construction Engineer with his dealings with the utility company to move their lines. Closely monitored the vibration results from the Testing Lab to keep the vibrations from the construction operations to a minimum (worked with local leaders and their concerns for private property). Worked closely with Parish officials to solicit funds from an incorporated city to help replace the deteriorated water line and line the deteriorated sewer line prior to proceeding with a reconstructed roadway. Met with local businesses and the Construction Engineer to facilitate access to all driveways during construction.

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- **Whitney Avenue Canal Improvements, Stumpf Boulevard/Belle Chasse Hwy SPN # 98-030-RBI (\$7,729,045)**

Served as Program Manager during construction of this project. Project consisted of lining the Whitney Ave. Canal with a concrete flume (20'-wide x 10'-high x 3434 ft.-long) to stabilize the canal banks in order to improve the existing two-lane roadway (including curb & gutter, roadway base repair, milling of asphalt and overlay). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Assisted the Contractor with his coordination with another near-by construction operation (98-031-RBI). Coordinated the hauling of excavated canal material with the Contractor and the Parish-operated landfill to use for cover material. Assisted the Construction Engineer with his dealings with the utility company to move their lines. Closely monitored the vibration results from the Testing Lab to keep the vibrations from the construction operations to a minimum (worked with local leaders and their concerns for private property).

- **Destrehan Avenue Extension, Keithway Drive to Lafitte-Larose Hwy, Surcharge SPN # 98-034-RBI (\$3,202,489)**

Served as Program Manager during construction of this project. Project consisted of clearing the ROW through a wooded area and pasture land in order to haul in sand to surcharge the area for a future roadway (surcharge dimensions 50' x 8' x 9917'). Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Assisted the Construction Engineer to coordinate a change in roadway alignment to avoid a transmission tower (not shown on survey). Negotiated a change to the canal crossing as requested by the Contractor with a cost savings.

- **Mounes Street Extension SPN # 93-052-RBI (\$3,032,920)**

Served as Program Manager during construction of this project. Project consisted of replacing a two-lane asphalt roadway and replacing it with a 4-lane concrete roadway for one block, then extending the roadway for approximately 1331 ft. (including sub-surface drainage). Monitored the construction of this project for the parish. Assisted the Construction Engineer by resolving conflicts or other situations arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated the relocation of existing power poles with the utility company and the contractor. Coordinated the installation of the Railroad Crossing with the railroad company and the Parish. Resolved issue of telephone duct bank interference with proposed box culvert with contractor and utility company.

- **New Rivet Boulevard SPN # 98-056-RBI (\$4,208,364)**

Program Manager during construction. Project involves a new two-lane roadway to connect River Road with Live Oak Blvd. in Waggaman, La. Monitored the construction of this project for the Parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated with the Construction Engineer, Parish officials and local property owners to relocate proposed drain lines and water lines in order to avoid the root systems of near-by trees. Sent sketch to Contractor depicting the location of added equipment as requested by the Parish Water Dept. Settled issues between the

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individual that donated the ROW to the Parish and Parish officials.

- **Terry Parkway Improvements SPN # 98-029-RBI (\$1,548,387)**

Project consisted of widening a four-lane section of concrete roadway to a six-lane roadway for approximately 2583 ft. (including sub-surface drainage & traffic signalization). Monitored the construction of this project for the parish. Assisted the Construction Engineer by resolving conflicts or other situations that arose during construction. Presented field concerns to the Parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated the traffic flow with the Parish Traffic Dept. and nearby shopping center to ease inflow and outflow traffic to the parking lots. Worked with Construction Engineer and Water Dept. to resolve the installation of a required 50 ft. mast arm near a deteriorating water line without damage. Met with local political leaders to satisfy the traffic concerns of the traveling public and to coordinate additional roadway repairs in the near-by neighborhood. Review and mark-up As-built drawings to reflect what was installed and constructed.

- **Power Boulevard Improvements, I-10 to West Esplanade SPN # 92-038-RBI (\$4,772,797)**

Served as Program Manager during construction of this project. Project consisted of widening a four-lane asphalt roadway and replacing it with a 6-lane asphalt roadway (including sub-surface drainage). Monitored the construction of this project for the parish. Assisted the Construction Engineer by resolving conflicts or other situations that may arise during construction. Presented field concerns to the parish and coordinated their resolutions. Reviewed Contractor Invoices, Testing Lab Invoices, & Change Orders for processing. Coordinated the field adjustments to all sidewalk grades and drop inlets. Also coordinated the installation of median sidewalk and all related issues. Reviewed and marked-up As-built drawings to reflect what was installed and constructed.

Further, relevant projects performed by BBEC related to roadway engineering and construction management are listed as follows:

- West Napoleon Avenue, Cleary Avenue to Severn Avenue (\$13,000,000)
- North Causeway Boulevard Improvements and Repairs (\$4,000,000)
- Cleary Avenue Improvements (\$3,400,000)
- Veterans Boulevard Resurfacing (\$750,000)
- West Esplanade Resurfacing Project (\$1,200,000)
- Labarre Road Back-to-Back U-Turn (\$1,200,000)

West Napoleon Avenue Improvements, Cleary Avenue to Severn Avenue, (LA DOTD Project No. 742-07-0088), Jefferson Parish, LA, 02/2003-08/2005

BBEC performed construction administration services on this \$11 million TIMED roadway and drainage project, which consisted of about 3,800 linear feet of four-lane concrete roadway divided by a new 30-foot wide concrete u-channel. BBEC coordinated with the private utility companies to relocate (or work around) natural gas pipelines and power and communication lines, overhead and buried, and coordinated construction and connection to public utilities (water and sewer) as well. BBEC reviewed and made recommendations regarding substitute materials and construction methods and monitored the contractors' accelerated operations that reduced the construction contract time from two and a half years to one and a half years. The project consisted of the design of three 9' x 9' box culverts (for a 250-foot box culvert crossing; design (roadway & culvert), construction administration services for about 3,500 linear feet of a new four-lane roadway construction with installation of 26 foot-wide concrete u-channel, traffic design & maintenance, utility

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relocations, resident inspection.

Ames Boulevard Roadside Drainage Improvements, Jefferson Parish, LA, 01/2004-12/2005

BBEC designed roadside drainage improvements along approximately 6,200 linear feet of Ames Boulevard in Jefferson Parish for this project. BBEC utilized TR-55 (computer model) to determine surface runoff for the drainage system. BBEC developed a computer model based on DOTD's spreadsheet to perform the hydraulic design. The drainage pipe ranged from 15- to 36-inches in diameter. Round and arched pipe was installed; concrete and plastic materials were used. Project site provided limited space between the road and property lines because of its 40-foot ROW. Existing water, sewer, power, cable television, and telephone services were worked around.

Annual Asphalt Overlay Maintenance, St. Bernard Parish, LA, 2003-2005

The project included the repair of miscellaneous asphalt roadways throughout St. Bernard Parish. BBEC prepared bid documents for an asphalt overlay contract for scattered sites and managed the project through construction. The project included the design and construction of roadway drainage systems, utility relocations, roadway and other site restoration, traffic maintenance, and all incidental work.

Annual Concrete Street Replacement Maintenance, St. Bernard Parish, LA, 2003-2005

The project included the repair of miscellaneous concrete roadways throughout St. Bernard Parish. BBEC prepared bid documents for a concrete contract for scattered sites and managed the project through construction. The project included the design and construction of roadway drainage systems, utility relocations, roadway and other site restoration, traffic maintenance, and all incidental work.

Florida Avenue Extension Study, St. Bernard Parish, LA, 01/2004-11/2004

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.

Primrose Box Culverts, St. Charles Parish, LA, 03/2004-10/2004

BBEC performed preliminary and final design, construction related services, administration, and resident inspection services for three 24-foot clear span box culverts and related road/drive restoration.

Boutte Drainage Improvements, St. Charles Parish, LA, 09/2002-05/2004

The project consisted of design and construction related services for 2,000 linear feet of 15-inch to 30-inch drainpipe along US Highway 90, including roadway and parking lot restoration. TR-55 (computer model) was used to determine the watershed's runoff. Hydraulic calculations were performed by hand.

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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: Sole Member Date: July 16, 2024