

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

THIS AGREEMENT is made and entered into by and between Fort Bend County, (hereinafter "County"), a body corporate and politic under the laws of the State of Texas, and BGE Inc., (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, County desires that Contractor provide professional engineering services for the reconstruction of roadway and intersection improvements for Voss Road at SH 6 under Project Number 17404, and Voss Road at Old Richmond Road under Project Number 17413, 2017 Mobility Bond Program (hereinafter "Services") pursuant to SOQ 14-025; and

WHEREAS, County has determined Contractor is the most highly qualified provider of the desired Services on the basis of demonstrated competence and qualifications, and County and Contractor have negotiated to reach a fair and reasonable amount of compensation for the provision of such Services, as required under Chapter 2254 of the Texas Government Code; and

WHEREAS, Contractor represents that it is qualified and desires to perform such services.

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth below, the parties agree as follows:

AGREEMENT

Section 1. Scope of Services

Contractor shall render the professional engineering services, including the surveying, right-of-way mapping, geotechnical investigations, roadway design, drainage design, traffic control design and utility coordination for the projects as described Scope of Services and Deliverable Documents attached hereto as Exhibit A, and incorporated herein for all purposes.

Section 2. Personnel

2.1 Contractor represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Services required under this Agreement and that Contractor shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Scope of Services when and as required and without delays.

2.2 All employees of Contractor shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Contractor who, in the opinion of County, is incompetent or by his conduct becomes detrimental to the project shall, upon request of County, immediately be removed from association with the project.

Section 3. Compensation and Payment

3.1 Contractor's fees shall be calculated at the rates set forth in the attached Exhibit A. The Maximum Compensation for the performance of Services within the Scope of Services described in Exhibit A is two hundred thirty-six thousand nine hundred fifty-seven dollars and 85/100 (\$236,957.85) as set forth in Exhibit A. In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without a written agreement executed by the parties.

3.2 All performance of the Scope of Services by Contractor including any changes in the Scope of Services and revision of work satisfactorily performed will be performed only when approved in advance and authorized by County.

3.3 County will pay Contractor based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Contractor shall submit to County staff person designated by the County Engineer, one (1) electronic (pdf) copy of the invoice showing the amounts due for services performed in a form acceptable to County. County shall review such invoices and approve them within 30 calendar days with such modifications as are consistent with this Agreement and forward same to the Auditor for processing. County shall pay each such approved invoice within thirty (30) calendar days. County reserves the right to withhold payment pending verification of satisfactory work performed.

Section 4. Limit of Appropriation

4.1 Contractor clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of two hundred thirty-six thousand nine hundred fifty-seven dollars and 85/100 (\$236,957.85) specifically allocated to fully discharge any and all liabilities County may incur.

4.2 Contractor does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Contractor may become entitled to and the total maximum sum that County may become liable to pay to Contractor shall not under any conditions, circumstances, or interpretations thereof exceed two hundred thirty-six thousand nine hundred fifty-seven dollars and 85/100 (\$236,957.85).

Section 5. Time of Performance

Time for performance of the Scope of Services under this Agreement shall begin with receipt of the Notice to Proceed and end no later than July 31, 2022. Contractor shall complete

the tasks described in the Scope of Services, within this time or within such additional time as may be extended by the County.

Section 6. Modifications and Waivers

6.1 The parties may not amend or waive this Agreement, except by a written agreement executed by both parties.

6.2 No failure or delay in exercising any right or remedy or requiring the satisfaction of any condition under this Agreement, and no course of dealing between the parties, operates as a waiver or estoppel of any right, remedy, or condition.

6.3 The rights and remedies of the parties set forth in this Agreement are not exclusive of, but are cumulative to, any rights or remedies now or subsequently existing at law, in equity, or by statute.

Section 7. Termination

7.1 Termination for Convenience – County may terminate this Agreement at any time upon forty-eight (48) hours written notice.

7.2 Termination for Default

7.2.1 County may terminate the whole or any part of this Agreement for cause in the following circumstances:

7.2.1.1 If Contractor fails to perform services within the time specified in the Scope of Services or any extension thereof granted by the County in writing;

7.2.1.2 If Contractor materially breaches any of the covenants or terms and conditions set forth in this Agreement or fails to perform any of the other provisions of this Agreement or so fails to make progress as to endanger performance of this Agreement in accordance with its terms, and in any of these circumstances does not cure such breach or failure to County's reasonable satisfaction within a period of ten (10) calendar days after receipt of notice from County specifying such breach or failure.

7.2.2 If, after termination, it is determined for any reason whatsoever that Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the County in accordance with Section 7.1 above.

7.3 Upon termination of this Agreement, County shall compensate Contractor in accordance with Section 3, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to County. Contractor's final invoice for said services will be presented to and paid by County in the same manner set forth in Section 3 above.

7.4 If County terminates this Agreement as provided in this Section, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Contractor.

Section 8. Ownership and Reuse of Documents

All documents, data, reports, research, graphic presentation materials, etc., developed by Contractor as a part of its work under this Agreement, shall become the property of County upon completion of this Agreement, or in the event of termination or cancellation thereof, at the time of payment under Section 3 for work performed. Contractor shall promptly furnish all such data and material to County on request.

Section 9. Inspection of Books and Records

Contractor will permit County, or any duly authorized agent of County, to inspect and examine the books and records of Contractor for the purpose of verifying the amount of work performed under the Scope of Services. County's right to inspect survives the termination of this Agreement for a period of four years.

Section 10. Insurance

10.1 Prior to commencement of the Services, Contractor shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days' prior written notice to County. Contractor shall provide certified copies of insurance endorsements and/or policies if requested by County. Contractor shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Contractor shall obtain such insurance written on an Occurrence form (or a Claims Made form for Professional Liability insurance) from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:

10.1.1 Workers' Compensation insurance. Substitutes to genuine Workers' Compensation Insurance will not be allowed.

10.1.2 Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.

10.1.3 Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.

10.1.4 Business Automobile Liability insurance with a combined Bodily Injury/Property Damage limit of not less than \$1,000,000 each accident. The policy shall cover liability arising from the operation of licensed vehicles by policyholder.

10.1.5 Professional Liability insurance may be made on a Claims Made form with limits not less than \$1,000,000.

10.2 County and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability. All Liability policies including Workers' Compensation written on behalf of Contractor shall contain a waiver of subrogation in favor of County and members of Commissioners Court.

10.3 If required coverage is written on a claims-made basis, Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning from the time that work under the Agreement is completed.

Section 11. Indemnity

CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS COUNTY AGAINST LOSSES, LIABILITIES, CLAIMS, AND CAUSES OF ACTION, INCLUDING THE REIMBURSEMENT OF COUNTY'S REASONABLE ATTORNEYS FEES IN PROPORTION TO CONTRACTOR'S LIABILITY, ARISING FROM ACTIVITIES OF CONTRACTOR, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENT ACT, INTENTIONAL TORT, ERROR, OR OMISSION OF CONTRACTOR OR ANY OF CONTRACTOR'S AGENTS, SERVANTS OR EMPLOYEES.

Section 12. Confidential and Proprietary Information

12.1 Contractor acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to County. Any and all information of any form obtained by Contractor or its employees or agents from County in the performance of this Agreement shall be deemed to be confidential information of County ("Confidential Information"). Any reports or other documents or items (including software) that result from the use of the Confidential Information by Contractor shall be treated with respect to confidentiality in the same manner as the Confidential Information. Confidential Information shall be deemed not to include information that (a) is or becomes (other than by disclosure by Contractor) publicly known or is contained in a publicly available document; (b) is rightfully in Contractor's possession without the obligation of nondisclosure prior to the time of its disclosure under this Agreement; or (c) is independently developed by employees or agents of Contractor who can be shown to have had no access to the Confidential Information.

12.2 Contractor agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Contractor uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purposes whatsoever other than the provision of Services to County hereunder, and to advise each of its employees and agents of their obligations to keep Confidential Information confidential. Contractor shall use its best efforts

to assist County in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Contractor shall advise County immediately in the event Contractor learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement and Contractor will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Contractor against any such person. Contractor agrees that, except as directed by County, Contractor will not at any time during or after the term of this Agreement disclose, directly or indirectly, any Confidential Information to any person, and that upon termination of this Agreement or at County's request, Contractor will promptly turn over to County all documents, papers, and other matter in Contractor's possession which embody Confidential Information.

12.3 Contractor acknowledges that a breach of this Section, including disclosure of any Confidential Information, or disclosure of other information that, at law or in equity, ought to remain confidential, will give rise to irreparable injury to County that is inadequately compensable in damages. Accordingly, County may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies that may be available. Contractor acknowledges and agrees that the covenants contained herein are necessary for the protection of the legitimate business interest of County and are reasonable in scope and content.

12.4 Contractor in providing all services hereunder agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

12.5 Contractor expressly acknowledges that County is subject to the Texas Public Information Act, TEX. GOV'T CODE ANN. §§ 552.001 *et seq.*, as amended, and notwithstanding any provision in the Agreement to the contrary, County will make any information related to the Agreement, or otherwise, available to third parties in accordance with the Texas Public Information Act. Any proprietary or confidential information marked as such provided to County by Consultant shall not be disclosed to any third party, except as directed by the Texas Attorney General in response to a request for such under the Texas Public Information Act, which provides for notice to the owner of such marked information and the opportunity for the owner of such information to notify the Attorney General of the reasons why such information should not be disclosed.

Section 13. Independent Contractor

13.1 In the performance of work or services hereunder, Contractor shall be deemed an independent contractor, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of contractor or, where permitted, of its subcontractors.

13.2 Contractor and its agents, employees, officers, or volunteers shall not, by performing work pursuant to this Agreement, be deemed to be employees, agents, or servants of County and shall not be entitled to any of the privileges or benefits of County employment.

Section 14. Notices

14.1 Each party giving any notice or making any request, demand, or other communication (each, a "Notice") pursuant to this Agreement shall do so in writing and shall use one of the following methods of delivery, each of which, for purposes of this Agreement, is a writing: personal delivery, registered or certified mail (in each case, return receipt requested and postage prepaid), or nationally recognized overnight courier (with all fees prepaid).

14.2 Each party giving a Notice shall address the Notice to the receiving party at the address listed below or to another address designated by a party in a Notice pursuant to this Section:

County:	Fort Bend County Engineering Department Attn: County Engineer 301 Jackson Street Richmond, Texas 77469
With a copy to:	Fort Bend County Attn: County Judge 401 Jackson Street, 1 st Floor Richmond, Texas 77469
Contractor:	BGE, Inc. Attn: Jason Ellison, P.E., Roadway Group Manager 10777 Westheimer Road, Suite 400 Houston, Texas 77020

14.3 A Notice is effective only if the party giving or making the Notice has complied with subsections 14.1 and 14.2 and if the addressee has received the Notice. A Notice is deemed received as follows:

14.3.1 If the Notice is delivered in person, or sent by registered or certified mail or a nationally recognized overnight courier, upon receipt as indicated by the date on the signed receipt.

14.3.2 If the addressee rejects or otherwise refuses to accept the Notice, or if the Notice cannot be delivered because of a change in address for which no Notice was given, then upon the rejection, refusal, or inability to deliver.

Section 15. Compliance with Laws

Contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required by County, Contractor shall furnish County with

certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

Section 16. Standard of Care

Contractor represents shall perform the Services to be provided under this Agreement with the professional skill and care ordinarily provided by competent engineers practicing under the same or similar circumstances and professional license. Further, Contractor shall perform the Services as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer.

Section 17. Assignment

17.1 Neither party may assign any of its rights under this Agreement, except with the prior written consent of the other party. That party shall not unreasonably withhold its consent. All assignments of rights are prohibited under this subsection, whether they are voluntarily or involuntarily, by merger, consolidation, dissolution, operation of law, or any other manner.

17.2 Neither party may delegate any performance under this Agreement.

17.3 Any purported assignment of rights or delegation of performance in violation of this Section is void.

Section 18. Applicable Law

The laws of the State of Texas govern all disputes arising out of or relating to this Agreement. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all legal actions or proceedings arising out of or relating to this Agreement and waive the right to sue or be sued elsewhere. Nothing in the Agreement shall be construed to waive the County's sovereign immunity.

Section 19. Successors and Assigns

County and Contractor bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of the other party, in respect to all covenants of this Agreement.

Section 20. Third Party Beneficiaries

This Agreement does not confer any enforceable rights or remedies upon any person other than the parties.

Section 21. Severability

If any provision of this Agreement is determined to be invalid, illegal, or unenforceable, the remaining provisions remain in full force, if the essential terms and conditions of this Agreement for each party remain valid, binding, and enforceable.

Section 22. Publicity

Contact with citizens of Fort Bend County, media outlets, or governmental agencies shall be the sole responsibility of County. Under no circumstances whatsoever, shall Contractor release any material or information developed or received in the performance of the Services hereunder without the express written permission of County, except where required to do so by law.

Section 23. Captions

The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of this Agreement.

Section 24. Conflict

In the event there is a conflict between this Agreement and the attached exhibits, this Agreement controls.

Section 25. Certain State Law Requirements for Contracts

25.1 Agreement to Not Boycott Israel Chapter 2270 Texas Government Code: By signature below, Contractor verifies Contractor does not boycott Israel and will not boycott Israel during the term of this Agreement.

25.2 Texas Government Code Section 2251.152 Acknowledgment: By signature below, Contractor represents pursuant to Section 2252.152 of the Texas Government Code, that Contractor is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.


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IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the date signed by the last party hereto.

FORT BEND COUNTY

BGE, INC

KP George, County Judge



Matthew Brannan, P.E., Director
Transportation Systems

Date

5/22/2019
Date

ATTEST:

Laura Richard, County Clerk

APPROVED:



J. Stacy Slawinski, P.E., County Engineer

APPROVED AS TO LEGAL FORM:

Marcus D. Spencer, First Assistant County Attorney

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$ _____ to accomplish and pay the obligation of Fort Bend County under this contract.

Robert Ed Sturdivant, County Auditor

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EXHIBIT A



Date: March 21, 2019

Robert W. Barnett, P.E.
C/O Fort Bend County Engineering
Vice President
LJA Engineering, Inc.
2929 Briarpark Drive Suite 600
Houston, TX

Reference: FBC 17404 & 17413 - Intersection Improvements (Voss Rd at Old Richmond Rd.
and Voss Rd. at SH 6)
Fort Bend County 2017 Mobility Bond Program

Subject: Proposal-Preliminary & Final Engineering, Bid & Construction Phase Services

Dear Mr. Barnett,

Enclosed are BGE, Inc.'s proposed budget, manpower and direct expense breakdown and scope of services for completing the Preliminary Engineering, Final Engineering, Geotechnical, Surveying, ROW Mapping, Bidding & Construction phase Services for the above referenced project based on the scope exhibits provided to BGE, Inc. by LJA Engineering, Inc. on March 1st, 2018.

BGE, Inc.'s proposed budget for the referenced project includes:

Phase 1 – Preliminary Design Services (including survey)	\$70,568.80
Phase 2 – Final Design Services	\$153,365.05
Phase 3 – Construction Phase Service	<u>\$13,024.00</u>
Total Proposed Fee	\$236,957.85

Our total proposed budget for the above services is estimated to be **\$236,957.85**. A detailed scope of services and level of effort on the basic services and additional services are attached. Also attached are the proposals from subconsultant(s) for the additional services. Please contact me if you have any questions or require additional information. We will commence work upon receipt of a written notice to proceed.

Sincerely,

Jason Ellison, P.E.
Roadway Group Manager
BGE, Inc.

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<u>Phase 1 (Lump Sum Payment Basis)</u>	
Preliminary Design (Engineering)	\$39,113.80
Preliminary Design (Survey & ROW Mapping)	\$31,455.00
 <u>Phase 2 (Lump Sum Payment Basis)</u>	
Final Design	\$143,804.80
Contract Administration	\$9,024.00
 <u>Direct Expense</u>	 \$536.25
 Total Lump Sum Payment Basis	 \$223,933.85
 <u>Phase 3 (Time & Materials Payment Basis)</u>	
Bid and Construction Phase Services	\$13,024.00
 Total Time & Materials Payment Basis	 \$13,024.00
 Total Proposed	 \$236,957.85

2017 Mobility Bond Program
Scope of Services
(BGE, Inc.)

Scope of Work – the project generally includes roadway and intersection reconstruction, turn lane construction, signal modification or construction, drainage improvements, signing, striping, and SWPPP for the following project locations:

1. **Project 4-04 (Voss Rd. at SH 6)**: Proposed right turn lane and existing signal modification at the intersection of Voss Rd. at SH 6. Construct right turn lane from eastbound Voss Rd. to southbound SH 6. ROW acquisition is anticipated.
2. **Project 4-13 (Voss Rd at Old Richmond Rd)**: Proposed 2-lane roundabout at the intersection of Voss Rd & Old Richmond Rd. Rework roadway connection at each end of the roundabout.

Scope of Services – the Engineer (Design Consultant) shall perform preliminary design, engineering, and construction phase services according to the following detailed scope. The Engineer shall develop the projects in collaboration with the Project Manager firm, who is also under contract with the County.

Construction Packages - Projects 4-04 and 4-13 are to be included in a single construction package.

Design Criteria - applicable design criteria for the above projects include, in order of priority

- 1) Any Fort Bend County Engineering or Drainage District criteria/standards, including the Fort Bend County Drainage Criteria Manual (Fort Bend County Drainage District, November 1987, revised April 1999)
- 2) Municipal design criteria if the project is located within the limits of a municipality and/or ETJ that has design criteria
- 3) Guidelines for Engineers Having Contracts with Harris County, Texas (Harris County Public Infrastructure Department, 1987)
- 4) Applicable Texas Department of Transportation design criteria (all County-maintained traffic signals, other items as applicable)
- 5) The Infrastructure Design Manual (City of Houston Department of Public Works and Engineering, current version, used for infrastructure for which design criteria do not exist in the preceding criteria documents).

PRELIMINARY DESIGN

Survey

Prepare a planimetric survey at each project location to include:

- Temporary benchmarks and control (1,000-foot maximum spacing)
- Abstracting to determine property ownership and ROW dimensions
- Visible surface features including pavements, driveways, mailboxes, striping,

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Scope of Services
(BGE, Inc.)

- signs (with panel description), signal poles, ditches, fencing, etc.
- Visible utilities including marker or pole locations, and description of marker or pole (type of utility and owner shown on marker)
- Drainage features (if present) to include:
 - Storm sewer sizes, pipe alignment at each manhole or inlet, and flowline shots
 - Culvert sizes, directions of flow, and end treatments
 - Flume sections or concrete lined ditches
- Extend survey 20 feet beyond ROW (secure right of entry approval as needed)
- Include structures within 30' of future 100' ROW (160' wide)
- Ties to adjacent structures (within 100 feet of exist ROW)
- Prepare a topographical survey at each project location to include shots of center of roadways, edge of roadways, gutter, curb, ditches, ROW, 20' outside ROW and any other break lines. Develop a full DTM for each project.
- Specific limits for each project include:
 - Voss Rd & Old Richmond Rd. - From the center of intersection, 600' each direction along Old Richmond Rd., 400' along Voss Rd. and 400' along the City park road west of Old Richmond Rd.
 - Voss Rd. at SH 6 – From the center of intersection, 500' along Voss Rd. and 200' along SH 6 to the mid-point between the two Chevron driveways.

Topographic survey should be taken within existing right-of-way and then at least 20 feet beyond the right- of-way on each side, or as determined in a scoping meeting. Temporary benchmarks and baseline control should be set, both with 1,000-foot maximum spacing between points. Abstracting should be performed to gain a preliminary determination of property ownership and existing right-of-way widths. During topographic survey, found property corners should be documented so that the approximate location of the right-of-way can be determined. Structures in clear view and within 100 feet of the existing right-of-way should be surveyed.

Survey Deliverables

- Survey Control Map with Monument Details (11x17 sealed sheet)
- 2D ROW and Property Boundary Map file in Microstation Select Series 4 format
- 2D Planimetric file in Microstation Select Series 4 format
- 3D DTM in Microstation Select Series 4 format
- ASCII point file of all shots
- Triangulated TIN file
- PDF of field books

ROW Mapping and Parcel Documents

This scope only includes ROW mapping for 3 parcels at Voss Rd. and SH 6 (Project 4-04).

Once right-of-way needs have been determined and approved by the County, a Category 1A survey must be performed to produce (1) an overall project map

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showing existing and proposed right-of-way, (2) a parcel map and metes-and-bounds description for each parcel to be acquired in the project, and (3) a KMZ file (used by Google Earth) showing existing right-of-way with ownership information, proposed takings with parcel numbers, and a preliminary roadway layout. Right-of-way documents will be submitted separately from other design documents and will be paid for on a per-parcel basis.

Stake the project ROW prior to construction.

ROW Mapping Deliverables

- Overall Project Map
- Parcel Map
- Existing & Proposed ROW Layout Sheet
- Metes and bounds description for each parcel
- KMZ file

Geotechnical Investigation

Geotechnical investigations and reporting should be completed during preliminary design, in accordance with Harris County criteria and the following document:

Guidelines for Consultants Performing Geotechnical Investigations, Effective January 1, 2011

Items to be provided by the County include the right-of-entry to conduct the exploration and information regarding the locations of any utilities on the subject site.

The proposed field investigation includes:

- Two (2) borings at 15-feet depth for Project 4-04.
- Three (3) borings at 20-feet depth for Project 4-13.

Submit a preliminary coring layout for approval prior to the start of field work. Develop traffic control plans and implement during normal business hours to conduct fieldwork.

Prepare a log of each boring to document field activities and results.

The geotechnical engineer should calculate the equivalent single axle load (ESAL) for the County's standard pavement design (8-inches of concrete with 8-inches of lime stabilized subgrade).

Submit a geotechnical report to include field investigation observations, photos, cores, calculations, and supporting documents.

The report will address the following:

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Scope of Services
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- Soil & groundwater conditions encountered at the boring locations (Projects 4-04, 4-13)
- Asphaltic & concrete road pavement thicknesses and composition at boring locations (Projects 4-04, 4-13)
- Paving and storm water drainage recommendations (Projects 4-04, 4-13)
- Material & compaction requirements (Projects 4-04, 4-13)
- Construction considerations (Projects 4-04, 4-13)

Geotechnical Deliverables

- Coring Layout
- Pavement Cores
- Report

Preliminary Engineering Report (PER)

The Engineer will prepare a Preliminary Engineering Report (PER) in the form of a concise technical memorandum with attachments as described in this scope. The PER deliverable is not intended to be a lengthy report, and multiple submission and revision cycles of the PER deliverable are not included. The purpose of the PER is to facilitate communication with the County about the goals for each project.

Prepare a single technical memorandum PER that addresses all four project locations. The primary goals are to (1) establish a typical cross section, (2) determine drainage system needs (drainage report and/or preliminary roadway drainage design), (3) determine approximate right-of-way acquisition needs, (4) determine potential conflicts with existing facilities, (5) identify critical path items, (6) identify problem areas and potential resolution(s), (7) outline permit and regulatory requirements, and (8) prepare a reasonable construction cost estimate.

A "30 percent" plan set will be prepared, consisting of all existing features shown in plan and profile, and proposed improvements in plan only with minor annotation. These plans, along with a typical section sheet, are the only drawings that are necessary for inclusion in the PER.

A Preliminary Engineering Report (PER) will be prepared for preliminary design, and the purpose of the report is to document the eight goals stated above. It is not necessary to prepare a presentation-quality document, as the report will remain internal to Engineering staff. The report should be submitted as a technical memorandum and include as attachments a narrative, applicable plans, a drainage report, and a construction cost estimate. The geotechnical report may be submitted subsequent to or concurrent with the PER.

3 copies of the report are required.

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Scope of Services
(BGE, Inc.)

Upon preliminary review and approval of the PER, the Design Consultant and Project Manager will conduct a review meeting to include key County staff. This scope assumes that all approvals or change requirements are given at this meeting.

Utility Coordination

The Engineer shall research to determine the existence and location of underground utilities (pipelines, duct banks, etc.). Any subsurface utility investigation (SUI) should be at the expense of the utility company. Utility company signatures will not be required on completed drawings.

The Engineer will:

- Perform records research and field visits to determine the presence of underground or overhead private or public utilities during the Preliminary Design phase
- Send records requests to utility companies and obtain I.D. numbers (CenterPoint and AT&T)
- Depict utilities to a reasonable degree of accuracy on the plan and profile drawings (based on available information)
- Prepare a conflict table during the Preliminary Design phase to highlight conflicts between existing utilities and proposed improvements, to be updated during the Final Design phase as required
- Submit milestone drawings to applicable utility companies for their review

The preliminary design efforts will be paid in a single lump-sum fee, to be billed monthly on a percent complete basis by task. Major tasks of preliminary design (design, survey, geotechnical, etc.) should be itemized in invoices.

FINAL DESIGN

Roadway Design

Prepare roadway designs at each location as follows:

1. Project 4-04 (Voss Rd. at SH 6) – prepare a curbed concrete pavement right turn lane design. The pavement design will be confirmed by the geotechnical engineer.
2. Project 4-13 (Voss Rd at Old Richmond Rd.) – prepare a 2-lane roundabout intersection design using concrete pavement with curb. The pavement design will be confirmed by the geotechnical engineer.
3. Cross Sections – prepare roadway cross sections for Projects 4-04 and 4-13 along each roadway at each project location at 50' intervals. Cross sections are to be utilized for contractor's information only and should graphically show pavement structure, final grading, drainage ditches, and the ROW line. Only non-standard sections should be included in plans if needed for clarity. Typical Sections will not be developed for non-standard cross sections. Cross sections are generally not be sealed and do not supersede information in the sealed

**2017 Mobility Bond Program
Scope of Services
(BGE, Inc.)**

plans.

Roadway Design Deliverables

- Cross Sections Sheets
- See additional sheet deliverables under Final Design

Drainage Design

Prepare drainage designs as follows:

1. Drainage Impact Analysis Letter Report (Project 4-04 and 4-13 sites included in the scope of work description) – prepare a drainage impact analysis to include drainage area maps, hydrologic computations, hydraulic models and computations, and storm runoff mitigation for roadway improvements described in the scope of work. Mitigation for impervious cover increase would be assessed using the Malcom’s Small Watershed Methodology.
2. Drainage and Storm Sewer Designs – prepare drainage areas, hydrologic computations, inlet calculations, storm sewer hydraulic computations, ditch computations and outfall designs for storm sewers or ditches at:
 - Project 4-04: Voss Rd. at SH 6
 - Project 4-13: Voss Rd & Old Richmond Rd.
3. Detention Details – prepare volumetric computations for ditches or storm sewers to accommodate detention requirements. Prepare weir and restrictor details for in-line detention designs. Perform for the following locations:
 - Project 4-13: Voss Rd & Old Richmond Rd.
 - Project 4-04: Voss Rd. at SH 6

Drainage Design Deliverables

- Drainage Impact Study
- Storm Sewer Models
- Detention Details
- See additional sheet deliverables under Final Design

Signing, Pavement Markings, Signals and Traffic Control Plan

Prepare signing, pavement markings, and TCP designs at each of the 4 project locations in accordance with Fort Bend County standards, the TMUTCD, and criteria listed above.

Prepare signal designs as follows:

1. Project 4-04 (Voss Rd. at SH 6) – modify the existing signal for the addition of the proposed right turn lane design

Signing, Pvt Mrk, Signals, TCP Design Deliverables

- Signal Design Plans (Signal General Notes, Existing Condition Diagram, Proposed Signal Layout, Signal Signing and Details, Electrical Schedule)
- See additional sheet deliverables under Final Design

2017 Mobility Bond Program
Scope of Services
(BGE, Inc.)

Storm Water Pollution Prevention Plan (SWPPP)

Prepare SWPPP designs at each of the 4 project locations in accordance with Fort Bend County standards and criteria listed above.

SWPPP Deliverables

- See sheet deliverables under Final Design

Final Design Plans - 70 Percent Submittal

Interim submittals will be made at 70 percent and 95 percent completion, and should include drawings, a specification table of contents (and/or special specifications, as applicable), and a construction cost estimate.

The 70 percent submittal should include the following as applicable:

- Cover sheet (Fort Bend County name and seal, project name with limits, vicinity and location maps, names of County Judge and Commissioners, signature line for County Engineer, design firm name and registration number)
- Sheet Index
- Typical and non-standard cross sections (not-to-scale proposed sections with station limits for each section; show pavement/subgrade material and thickness, right-of-way and roadway width, applicable dimensions, profile grade line, and general location of existing and proposed utilities)
- Overall project layout (scale as appropriate with sheet references left blank since they are subject to change in subsequent submittals)
- Survey control map
- Drainage area map with hydraulic calculations (display calculations clearly for future use by area developers)
- Plan and profile sheets (1"=20' plan scale but printed half-size for a 1"=40' scale; all existing and proposed facilities correctly shown in plan and profile; separate drawings for roadway and storm sewer are not necessary; detailed callouts not required at 70%)
- Traffic control plan (phasing and traffic control; avoid detours unless approved by the County; use of construction zone standards is encouraged)
- Traffic Signal Layouts (details not required at 70%)
- Storm Water Pollution Prevention Plan (drawings and text; drawings may consist of a layout and details)
- Specification table of contents (use Harris County Specifications)
- Bid form with estimated unit and total costs (spreadsheet based)
- Cost Estimate

Three copies of the 70 percent submittal will be required for County review, and drawings can be submitted on 11-inch by 17-inch sheets. A digital copy in Adobe

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Scope of Services
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Acrobat format (PDF) of the drawings, specifications and estimate will also be required.

Final Design Plans - 95 Percent Submittal

The 95 percent submittal should be considered complete, shall include a 95% interim seal, and shall include all of the 70 percent requirements plus the following as applicable:

- General notes sheet
- Verify earthwork quantities with cross sections at 50-foot intervals (only non-standard sections should be included in plans)
- Signage and pavement marking plans (signs may be shown on plan and profile sheets and use of pavement marking standards is encouraged)
- Traffic Signal Plans and Details
- Standard construction details
 - Roadway, Pavement, Curb
 - Driveway (schedule & details), Sidewalks, Ramps
 - Drainage, Manholes, Inlets, Outfalls
 - Signing & Striping
 - Slope Paving
 - Project Sign
- List of Specifications (bid documents and Project Manual being prepared by Project Management firm)
- Responses to 70 percent comments

Three copies of the 95 percent submittal will be required for County review, and drawings can be submitted on 11-inch by 17-inch sheets. A digital copy in Adobe Acrobat format (PDF) of the drawings, specifications and estimate will also be required.

Final Design Plans - 100 Percent Submittal

The 100 percent design submittal shall consist of one sealed and signed set of drawings delivered to the County, along with a PDF submittal of the drawings, specifications and estimate sent to the Project Manager.

All final design efforts will be paid in a single lump-sum fee, to be billed monthly on a percent complete basis.

BID AND CONSTRUCTION PHASE SERVICES

Bid Phase

Upon completion of final design services, the County will determine an advertisement and bid opening schedule. All administrative project manual

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Scope of Services
(BGE, Inc.)

documents (cover page, Notice to Bidders, etc.) will be prepared by the County and provided to the Design Consultant in PDF format. The Design Consultant will compile a single project manual file in PDF format, consisting of:

- Administrative documents
- The bid form (prepared by the Design Consultant)
- A sealed specification table of contents
- Applicable specifications and documents

The Design Consultant will prepare a single file in PDF format for the entire drawing set. Except for the cover sheet, which contains approval signature(s), all drawings may be printed directly to Adobe Acrobat format with electronic seal and signature.

The Design Consultant will prepare 27 compact discs, each with one project manual file and one drawing file. Of these, 25 compact discs will be delivered to the County Purchasing Agent for advertising, and two discs will be provided to the Project Manager. Printed documents are not required.

The Design Consultant will attend a pre-bid meeting at the County Purchasing Office. It is not necessary to prepare for the meeting, other than to be able to briefly describe the project.

The Purchasing Agent will forward bidder questions to the Design Consultant. Answers to questions, as well as any other required changes, will be included in an addendum, prepared by the Design Consultant if necessary. The Purchasing Agent will distribute the addendum.

After the bid, the Project Manager will prepare a bid tabulation and provide a copy to the Design Consultant for filing.

Construction Phase

The Design Consultant will attend a pre-construction meeting with County staff, Project Manager, general contractor, and construction materials testing contractor. Prior to the meeting, the Project Manager will inform the Design Consultant of how many drawing and project manual sets are required, and the Design Consultant will provide these documents at the pre-construction meeting.

The Design Consultant will be responsible for reviewing contractor submittals and responding to Requests for Information.

Field visits and progress meetings will not be required. The Design Consultant will participate in a substantial completion walkthrough.

After project completion, the Design Consultant will prepare record drawings based

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Scope of Services
(BGE, Inc.)

on contractor as-built markups. The record drawings may be printed on paper and delivered to the County.

All bid and construction phase services will be paid on a time-and-materials basis. The not-to-exceed fee for these services will be determined by the County and/or its Project Manager and the Design Consultant. Monthly billing will include a breakdown of hours spent by personnel in the various employee categories, at billing rates agreed to by the County and the Design Consultant.

CONTRACT ADMINISTRATION

Manage professional contract, develop and maintain a project schedule, prepare and manage subconsultant contracts, perform project administration, progress reports, and correspondence. Coordinate with and attend meetings with the Project Management firm and the County. Prepare, distribute, and retain correspondence. Document project discussions via phone calls or conference calls as required.

EXCLUSIONS

The following items and tasks are excluded from the scope and may be added with a supplemental agreement:

- Preliminary wetlands investigations and project notification to the Texas Historical Commission will be performed by the County on a program-wide basis.
- Phase 1 Environmental Site Assessment
- Utility Coordination by the Project Management Firm
 - Assist the Design Consultant in identifying major utilities, and providing contact information for various utilities as needed
 - Coordinate directly with utility companies to facilitate utility adjustments required by the proposed improvements
 - Coordinate with utility companies during the Construction phase as required
- Old Richmond Rd., Voss, and Clodine are not listed as major thoroughfares and will not be evaluated for possible future 6-lane configuration.
- West Belfort is listed as a major thoroughfare, but proposed improvements only included drainage enhancements, and it will not be evaluated for possible future 6-lane configuration.
- All administrative project manual or frontend documents (cover page, Notice to Bidders, etc.)
- Project Manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
– to be prepared by Project Management firm.

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Scope of Services
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- Pavement/concrete/asphalt mix design for construction phased services.
- Precise surveying of boring locations and elevations is not included in scope of services.

FEE SCHEDULE

Fort Bend County 2017 Mobility Bond Program
 Intersection Improvements (Voss Rd & Old Richmond Rd.,
 & Voss Rd. at SH 6
 Project No. 4-04 and 4-13
 PRIME PROVIDER: BGE, Inc.

FIRM SUMMARY		
Firm	Amount	Percent
BGE, Inc.	\$ 215,655.25	91.0%
Geoscience Engineering & Testing, Inc.	\$ 21,302.60	9.0%
Total	\$ 236,957.85	100.0%

SUMMARY BY CONTRACT PHASE			
	Firm		
	BGE, Inc. (Design & Survey)	Geoscience Engineering & Testing, Inc. (Geotechnical)	Total
Projects 4-04, 4-13			
LUMP SUM PAYMENT BASIS			
Preliminary Design (Engineering)	\$ 17,811.20	\$ 21,302.60	\$ 39,113.80
Preliminary Design (Survey & ROW Mapping)	\$ 31,455.00		\$ 31,455.00
Final Design	\$ 143,804.80		\$ 143,804.80
Contract Administration	\$ 9,024.00		\$ 9,024.00
DIRECT EXPENSES	\$ 536.25		\$ 536.25
TOTAL (LUMP SUM PAYMENT BASIS)	\$ 202,631.25	\$ 21,302.60	\$ 223,933.85
TIME AND MATERIALS PAYMENT BASIS			
Bid and Construction Phase Services	\$ 13,024.00		\$ 13,024.00
TOTAL (TIME & MATERIALS PAYMENT BASIS)	\$ 13,024.00	\$ -	\$ 13,024.00
GRAND TOTAL	\$ 215,655.25	\$ 21,302.60	\$ 236,957.85

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)

Fort Bend County 2017 Mobility Bond Program
Intersection Improvements (Voss Rd & Old Richmond Rd,
and Voss Rd. at SH 6)
Project No. 4-04, 4-13
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHFTS	HRS PER SHFT
CONTRACT RATE PER HOUR	\$ 192.00	\$ 160.00	\$ 144.00	\$ 128.00	\$ 108.80	\$ 102.40	\$ 80.00	\$ 73.60				
PRELIMINARY DESIGN (LUMP SUM PAYMENT BASIS)												
Utility Coordination												
Identify Existing Utilities (Records Research)			1	4	4				9	\$ 1,091.20		
Field Visit			4	4	4				8	\$ 1,011.20		
Coordination with Utilities Companies		1	2	4	8				15	\$ 1,830.40		
Utility Conflict List		1	2	4	8				15	\$ 1,830.40		
HOURS SUB-TOTALS	0	2	9	12	24	0	0	0	47			
SUBTOTAL	\$0.00	\$320.00	\$1,296.00	\$1,536.00	\$2,511.20	\$0.00	\$0.00	\$0.00	\$5,763.20	\$5,763.20		
Preliminary Engineering Report (PER)												
PER Narrative / Compile PER	1	1	8	8				2	20	\$ 2,675.20	-	-
Determine ROW needs			2	2	4				8	\$ 979.20	-	-
Project 4-04 Geometric Design & Analysis		1	1	2	6				10	\$ 1,212.80	-	-
Project 4-13 Geometric Design & Analysis		1	2	8	18				27	\$ 3,212.80	-	-
Preliminary Cost Estimates		1	2	2	8				13	\$ 1,574.40	-	-
PER Exhibits		1	2	2	8	8			21	\$ 2,393.60	3	7
HOURS SUB-TOTALS	1	5	17	24	42	8	0	2	99			
SUBTOTAL	\$192.00	\$800.00	\$2,448.00	\$3,072.00	\$4,569.60	\$819.20	\$0.00	\$147.20	\$12,048.00	\$12,048.00		
SUBTOTAL PRELIMINARY DESIGN	1	7	26	36	66	8	0	2	148	0		
	\$192.00	\$1,120.00	\$3,744.00	\$4,608.00	\$7,180.80	\$819.20	\$0.00	\$147.20	\$17,811.20	\$17,811.20		
FINAL DESIGN (LUMP SUM PAYMENT BASIS)												
Miscellaneous												
Cover Sheet		1	1			2	4		8	\$ 828.80	1	8
Index of Sheets			1	2	4	2	2		11	\$ 1,200.00	1	11
Roadway Design												
Alignment/Baseline Definition (Projects 4-04, 4-13)			1	2	4	1			8	\$ 937.60	1	8
Finalize Geometrics (Roundabout, RTL, Intersection, Projects 4-04, 4-13)												
P&Ps (Projects 4-04, 4-13) (Scale: 1"=100')	1	1	4	12	24	4	4		50	\$ 5,804.80		
Project Layout (Projects 4-04, 4-13)			2	16	32	8	8		66	\$ 7,628.80	3	23
Existing and Proposed Typical Sections (Projects 4-04, 4-13)		1	2	16	28	12	12		71	\$ 1,145.60	1	11
Cross Sections (Projects 4-04 and 4-13)		1	4	24	80	2			111	\$ 12,716.80		
Earthwork (Projects 4-04 and 4-13)			1	8	24				33	\$ 3,779.20		
Miscellaneous Roadway Details			1	2	8	4	4		19	\$ 2,000.00	2	10

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)

Fort Bend County 2017 Mobility Bond Program
 Intersection Improvements (Voss Rd & Old Richmond Rd.,
 and Voss Rd. at SH 6)
 Project No. 4-04, 4-13
 SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 192.00	\$ 160.00	\$ 144.00	\$ 128.00	\$ 108.80	\$ 102.40	\$ 80.00	\$ 73.60				
HOURS SUB-TOTALS	2	5	17	63	210	37	36	0	390			
SUBTOTAL	\$384.00	\$800.00	\$2,448.00	\$10,624.00	\$22,848.00	\$3,788.80	\$2,880.00	\$0.00	\$43,772.80	\$43,772.80		

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)

Fort Bend County 2017 Mobility Bond Program
Intersection Improvements (Voss Rd & Old Richmond Rd.,
and Voss Rd. at SH 6)
Project No. 4-04, 4-13
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 192.00	\$ 160.00	\$ 144.00	\$ 128.00	\$ 108.80	\$ 102.40	\$ 80.00	\$ 73.60				
Drainage Design												
Drainage Impact Study Letter Report (Projects 4-04, 4-13)	1	8	16	40	64	8			137	\$ 16,676.40		
Existing Conditions Hydrology (Culps and Drainage Areas)												
Proposed Conditions Hydrology (Culps and Drainage Areas)												
Impervious Cover Mitigation (Small Watershed Methodology)												
Exhibits for Letter Report												
Draft Drainage Letter Report												
Final Drainage Letter Report												
Drainage and Storm Designs												
Drainage Area Maps (Projects 4-04, 4-13)		1	1	6	12	4			24	\$ 2,787.20	2	12
Ditch Capacity Calculations (Project 4-13)			1	4	8				13	\$ 1,528.40		
Storm Sewer & Lateral Details (Project 4-04)	1		1	12	24	8	8		54	\$ 5,942.40	2	27
Hydraulic Computations (Project 4-04)			1	12	24				37	\$ 4,291.20	2	19
Detention Details (Projects 4-04, 4-13)		1	1	6	12	2	2		24	\$ 2,742.40	1	24
Miscellaneous Drainage Details			1	2	8	4	4		19	\$ 2,000.00	2	10
HOURS SUB-TOTALS	2	10	22	82	152	26	14	0	308		9	
SUBTOTAL	\$384.00	\$1,600.00	\$3,168.00	\$10,496.00	\$16,537.60	\$2,662.40	\$1,120.00	\$0.00	\$35,968.00	\$35,968.00		
Signing, Pavement Markings, Signals and T&P												
Signing and Striping Plans (Projects 4-04, 4-13)	1		4	16	40	16	8		85	\$ 9,446.40	4	21
Signal Modification Plans (Project 4-04)	1	8	24	40	56	16	16		181	\$ 19,059.20	5	32
T&P (Project 4-04)	1		2	6	12	8	4		33	\$ 3,692.80	1	33
T&P (Project 4-13)	1		4	24	40	16	16		101	\$ 11,110.40	4	25
HOURS SUB-TOTALS	4	8	24	86	148	56	44	0	360		14	
SUBTOTAL	\$768.00	\$1,280.00	\$4,896.00	\$11,008.00	\$16,102.40	\$5,734.40	\$3,520.00	\$0.00	\$43,308.80	\$43,308.80		

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)

Fort Bend County 2017 Mobility Bond Program
Interaction Improvements (Voss Rd & Old Richmond Rd.,
and Voss Rd. at SH 6)
Project No. 4-04, 4-13
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHFTS	HRS PER SHFT
CONTRACT RATE PER HOUR	\$ 192.00	\$ 160.00	\$ 144.00	\$ 128.00	\$ 108.80	\$ 102.40	\$ 80.00	\$ 73.60				
Storm Water Pollution Prevention Plan (SWPPP)												
SWPPP Layouts (Projects 4-04, 4-13)			1	6	8	4	2		21	\$ 2,352.00	2	11
HOURS SUB-TOTALS	0	0	1	6	8	4	2	0	21		2	
SUBTOTAL	\$0.00	\$0.00	\$144.00	\$768.00	\$870.40	\$409.60	\$160.00	\$0.00	\$2,352.00	\$2,352.00		
Final Design Plans												
Submittals (70%, 95%, 100%)												
Cost Estimate & Quantities		1	12	16	48		4		81	\$ 9,478.40		
Standards			1	1	2		2		6	\$ 649.60		
Specifications Table		1	4	8					13	\$ 1,760.00		
General Notes		1	2	8			2		13	\$ 1,632.00		
CAD/CDD	8	20						2	30	\$ 4,883.20		
HOURS SUB-TOTALS	8	23	19	33	50	0	8	2	143			0
SUBTOTAL	\$1,536.00	\$3,680.00	\$2,736.00	\$4,224.00	\$5,440.00	\$0.00	\$640.00	\$147.20	\$18,403.20	\$18,403.20		
SUBTOTAL FINAL DESIGN	\$3,072.00	\$7,360.00	\$13,392.00	\$37,120.00	\$61,798.40	\$12,696.20	\$8,320.00	\$147.20	\$143,804.80	\$143,804.80		
CONTRACT ADMINISTRATION (LUMP SUM PAYMENT BASIS)												
Develop and Maintain Project Schedule			4						4	\$ 576.00		
Prepare and Manage Subconsultant Contracts		4							4	\$ 640.00		
Document Control for Project Admin, Progress Reports, & Correspondence	1	4	4						9	\$ 1,408.00		
Conference Calls	1	4	8						13	\$ 1,984.00		
Review Meetings and Documentation	4	12	12						28	\$ 4,416.00		
HOURS SUB-TOTALS	6	24	28	0	0	0	0	0	68			
SUBTOTAL	\$1,152.00	\$3,840.00	\$4,032.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,024.00	\$9,024.00		
BID AND CONSTRUCTION PHASE SERVICES (TIME AND MATERIALS PAYMENT BASIS)												
Bid Phase												
Compile Project Manual	1		4		8				13	\$ 1,638.40		
Prepare Bid Tabulation Form	1		4		8				13	\$ 1,638.40		
Attend Pre-Bid Meeting	3	3							6	\$ 1,056.00		
Addressing Bidder Questions	1		4	8					13	\$ 1,792.00		
HOURS SUB-TOTALS	6	3	12	8	16	0	0	0	45			0
SUBTOTAL	\$1,152.00	\$480.00	\$1,728.00	\$1,024.00	\$1,740.80	\$0.00	\$0.00	\$0.00	\$6,124.80	\$6,124.80		
Construction Phase												

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)

Fort Bend County 2017 Mobility Bond Program
Intersection Improvements (Voss Rd & Old Richmond Rd,
and Voss Rd. at SH 6)
Project No. 4-04, 4-13
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 192.00	\$ 160.00	\$ 144.00	\$ 128.00	\$ 108.80	\$ 102.40	\$ 80.00	\$ 73.60				
Pre Construction Meeting	3	3							6	\$ 1,056.00		
Review Contractor Submittals & RFIs	1		4	8					13	\$ 1,792.00		
Field Visits & Progress Meetings	2	2	4						8	\$ 1,280.00		
Completion Walkthrough		4	4						8	\$ 1,216.00		
Prepare Record Drawings			2		6	6			14	\$ 1,556.20		
										\$ -		
HOURS SUB-TOTALS	6	9	14	8	6	6	0	0	49		0	
SUBTOTAL	\$1,152.00	\$1,440.00	\$2,016.00	\$1,024.00	\$652.80	\$614.40	\$0.00	\$0.00	\$6,899.20	\$6,899.20		
SUBTOTAL BID AND CONSTRUCTION PHASE SERVICES	\$2,304.00	\$1,920.00	\$3,744.00	\$2,048.00	\$2,393.60	\$614.40	\$0.00	\$0.00	\$13,024.00	\$13,024.00		
TOTAL HOURS	35	89	173	342	656	137	104	4	1,540			
CONTRACT RATE PER HOUR	\$ 192.00	\$ 160.00	\$ 144.00	\$ 128.00	\$ 108.80	\$ 102.40	\$ 80.00	\$ 73.60				
SUBTOTAL LABOR EXPENSES	\$ 6,720.00	\$ 14,240.00	\$ 24,912.00	\$ 43,776.00	\$ 71,372.80	\$ 14,028.80	\$ 8,320.00	\$ 294.40	\$183,664.00			
DIRECT EXPENSES	QUANTITY	UNIT	RATE						TOTAL			
MILEAGE	50	mile	\$ 0.535						\$ 26.75			
OVERNIGHT MAIL - OVERSIZED BOX	5	each	\$ 35.00						\$ 175.00			
CD ARCHIVE	27	each	\$ 5.00						\$ 135.00			
PHOTOCOPIES B/W (11" X 17")	300	each	\$ 0.20						\$ 60.00			
PHOTOCOPIES B/W (8 1/2" X 11")	300	each	\$ 0.10						\$ 30.00			
PHOTOCOPIES COLOR (11" X 17")	30	each	\$ 1.25						\$ 37.50			
PHOTOCOPIES COLOR (8 1/2" X 11")	30	each	\$ 0.65						\$ 19.50			
PLOTS (COLOR ON BOND)	30	per sq. ft.	\$ 1.75						\$ 52.50			
SUBTOTAL DIRECT EXPENSES									\$ 536.25			
TOTAL									\$184,200.25			

FEE SCHEDULE
(LUMP SUM PAYMENT BASIS)

Fort Bend County 2017 Mobility Bond Program
Intersection Improvements (Voss Rd & Old Richmond Rd.,
and Voss Rd. at SH 8)
Project No. 4-04, 4-13
SUMMARY OF SCOPE - Survey & ROW Mapping

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	RPLS - TASK LEADER	SENIOR SURVEY TECHNICIAN	SURVEY TECHNICIAN	ADMIN/ CLERICAL	Field Crew		TOTAL HRS. & COSTS	COST PER TASK
CONTRACT RATE PER HOUR	\$ 155.00	\$ 100.00	\$ 90.00	\$ 60.00	\$ 160.00			
Topo Survey								
4-04 Voss Road/HWY 8 - RTL / Signal	6	8	10		12		36	\$ 4,560.00
4-13 Voss Road - Roundabout	6	8	12		16		42	\$ 5,370.00
ROW Mapping								
4-04 Voss Road (9 Parcels)	12	24		2	10		48	\$ 5,980.00
Control Sheets								
2 Sites (6 points Total, 2 Permanent BM's)	8	15		1			24	\$ 2,800.00
ROW Construction Staking								
4-04 Voss Road	3	6			10		19	\$ 2,665.00
RCE								
39 Parcels	8		15	50			73	\$ 5,590.00
HOURS SUB-TOTALS	43	61	37	53	48	0	242	
SUBTOTAL	\$6,665.00	\$6,100.00	\$3,330.00	\$3,180.00	\$7,680.00	\$0.00	\$26,955.00	\$26,955.00
TOTAL HOURS								
TOTAL HOURS	43	61	37	53	48	0	242.0	
CONTRACT RATE PER HOUR	\$ 155.00	\$ 100.00	\$ 90.00	\$ 60.00	\$ 160.00	\$ -		
SUBTOTAL LABOR EXPENSES	\$ 6,665.00	\$ 6,100.00	\$ 3,330.00	\$ 3,180.00	\$ 7,680.00	\$ -	\$26,955.00	
DIRECT EXPENSES								
	QUANTITY	UNIT	RATE				TOTAL	
Abstractor	3		\$ 1,500.000				\$ 4,500.00	
SUBTOTAL OTHER DIRECT EXPENSES							\$ 4,500.00	
TOTAL							\$31,455.00	

FEE SCHEDULE
(LUMP SUM PAYMENT BASIS)

Fort Bend County 2017 Mobility Bond Program
Intersection Improvements (Voss Rd & Old Richmond Rd,
and Voss Rd. at SH 6)
Project No. 4-04, 4-13
SUMMARY OF SCOPE - Geotechnical

SUBPROVIDER: Geoscience Engineering & Testing, Inc.

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	ENGINEER-IN-TRAINING TECH	SENIOR CADD OPERATOR	CADD OPERATOR	SENIOR TECHNICIAN	ADMN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF DWGS
CONTRACT RATE PER HOUR	\$ 192.00	\$ 160.00	\$ 144.00	\$ 108.80	\$ 102.40	\$ 80.00	\$ 65.00	\$ 73.60			
1 Project Kickoff and Planning	2		2					2	6	\$ 819.20	N/A
2 Initial Site Visits	2		2					2	6	\$ 819.20	N/A
3 Field Exploration				4			16	2	22	\$ 1,622.40	N/A
4 Laboratory Testing			2						2	\$ 288.00	N/A
5 Boring Logs and Exhibits		1	2	4					7	\$ 883.20	N/A
6 Preliminary Report Preparation	1	2	4	16				4	27	\$ 3,123.20	N/A
7 Final Report Preparation and Delivery	1	2	2	4				2	11	\$ 1,382.40	N/A
HOURS SUB-TOTALS	6	5	14	28	0	0	16	12	81		
SUBTOTAL (FC 163)	\$1,152.00	\$800.00	\$2,016.00	\$3,046.40	\$0.00	\$0.00	\$1,040.00	\$883.20	\$8,937.60	\$8,937.60	N/A

TOTAL HOURS	6	5	14	28	0	0	16	12	81
CONTRACT RATE PER HOUR	\$ 192.00	\$ 160.00	\$ 144.00	\$ 108.80	\$ 102.40	\$ 76.31	\$ 65.00	\$ 73.60	
SUBTOTAL LABOR EXPENSES	\$ 1,152.00	\$ 800.00	\$ 2,016.00	\$ 3,046.40	\$ -	\$ -	\$ 1,040.00	\$ 883.20	\$8,937.60
DIRECT EXPENSES	QUANTITY	UNIT	RATE						TOTAL
1 Asphalt, Concrete Coring and Drilling	1	Lump Sum	\$10,565.00						\$ 10,565.00
2 Laboratory Testing	1	Lump Sum	\$1,800.00						\$ 1,800.00
									\$ -
									\$ -
									\$ -
									\$ -
									\$ -
									\$ -
SUBTOTAL DIRECT EXPENSES									\$ 12,365.00
TOTAL									\$21,302.60