

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 R. G. Miller Engineers, Inc. (hereinafter "Engineer"), a company authorized to conduct business in the State of Texas.

**WITNESSETH**

WHEREAS, County desires that Engineer provides preliminary engineering, final design contract and construction phase engineering services to develop construction documents for the completion of Bellaire Boulevard from east of Parkway Lakes Lane to Lakehead Lane as a continuous four-lane concrete boulevard roadway with a raised median, including storm sewer and drainage system and any necessary appurtenances (hereinafter "Services"); and

WHEREAS, County has determined that this Agreement is for personal or professional services and therefore exempt from competitive bidding under Chapter 262 of the Texas Local Government Code; and

WHEREAS, Engineer 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**

Engineer shall render Services to County as defined in the Scope of Services (attached hereto as Exhibit A).

**Section 2. Personnel**

2.1 Engineer 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 Engineer 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 Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Engineer 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 Engineer's fees shall be calculated at the rates set forth in the attached exhibits. The Maximum Compensation for the performance of Services within the Scope of Services described in Exhibit A is five hundred four thousand eight hundred thirty-two dollars and no/100 (\$504,832.00). In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without an approved change order. The Maximum Compensation shall be allocated as follows:

3.1.1. \$372,589 for Total Basic Engineering Services

3.1.2. \$132,243 for Additional Services

3.2 All performance of the Scope of Services by Engineer 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 Engineer based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Engineer shall submit to County staff person designated by the County Engineer, one (1) electronic (pdf) copy and two (2) original hard copies of invoices showing the amounts due for services performed in a form acceptable to County. County shall review such invoices and approve them within thirty (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 Engineer 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 five hundred four thousand eight hundred thirty-two dollars and no/100 (\$504,832.00), specifically allocated to fully discharge any and all liabilities County may incur.

4.2 Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Engineer may become entitled to and the total maximum sum that County may become liable to pay to Engineer shall not under any conditions, circumstances, or interpretations

thereof exceed five hundred four thousand eight hundred thirty-two dollars and no/100 (\$504,832.00).

#### **Section 5. Time of Performance**

The time for performance of the Scope of Services by Engineer shall begin with receipt of the Notice to Proceed from County and end no later than twenty-four (24) months thereafter. Engineer 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**

7.1.1 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 Engineer 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 Engineer 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 Engineer 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 Engineer 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. Engineer'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 Engineer.

#### **Section 8. Ownership and Reuse of Documents**

All documents, data, reports, research, graphic presentation materials, etc., developed by Engineer 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. Engineer shall promptly furnish all such data and material to County on request.

#### **Section 9. Inspection of Books and Records**

Engineer will permit County, or any duly authorized agent of County, to inspect and examine the books and records of Engineer 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, Engineer 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. Engineer shall provide copies of insurance endorsements and/or policies if requested by County. Engineer 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. Engineer shall obtain such insurance written on an Occurrence (except Professional Liability) form from such companies having Bests 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 in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed. 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.

10.1.2 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.

10.1.3 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.

10.1.4 Professional Liability insurance 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 and Professional Liability written on behalf of Engineer 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, Engineer 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**

**ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS COUNTY AGAINST ALL LOSSES, LIABILITIES, CLAIMS, CAUSES OF ACTION, AND OTHER EXPENSES, INCLUDING REASONABLE ATTORNEYS FEES, ARISING FROM ACTIVITIES OF ENGINEER, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENT ACT, ERROR, OR OMISSION OF ENGINEER OR ANY OF ENGINEER'S AGENTS, SERVANTS OR EMPLOYEES.**

#### **Section 12. Confidential and Proprietary Information**

12.1 Engineer 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 Engineer 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 Engineer 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 Engineer) publicly known or is contained in a publicly available document; (b) is rightfully in Engineer'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 Engineer who can be shown to have had no access to the Confidential Information.

12.2 Engineer agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Engineer 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. Engineer 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, Engineer shall advise County immediately in the event Engineer 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 Engineer will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Engineer against any such person. Engineer agrees that, except as directed by County, Engineer 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, Engineer will promptly turn over to County all documents, papers, and other matter in Engineer's possession which embody Confidential Information.

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

12.5 Engineer 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, Engineer 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 Engineer or, where permitted, of its subcontractors.

13.2 Engineer 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 301 Jackson Street Richmond, Texas 77469
With a copy to:	Fort Bend County Attn: County Judge 401 Jackson Street, 1 <sup>st</sup> Floor Richmond, Texas 77469
Engineer:	R. G. Miller Engineers, Inc. 16340 Park Ten Place, Suite 350 Houston, Texas 77084

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**

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

#### **Section 16. Standard of Care**

16.1 Engineer represents to County that Engineer has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession practicing in the greater Houston metropolitan area and Engineer will apply that skill and knowledge with care and diligence to ensure that the Services provided hereunder will be performed and delivered in accordance with the highest professional standard of care.

16.2 Consistent with the Standard of Care in 16.1, Engineer represents to County that the Services will be free from material errors and will materially conform to all requirements and specifications contained in the attached Exhibit A.

#### **Section 17. Assignment and Delegation**

17.1 Neither party may assign, sublet or transfer its or his interest in this Agreement without the prior written consent of the other, which shall not be unreasonably withheld.

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 Engineer 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 Engineer 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 exhibit, this Agreement controls.

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 22 day of July, 2014.

FORT BEND COUNTY

  
Robert E. Hebert, County Judge

R. G. Miller Engineers, Inc.

  
Authorized Agent- Signature

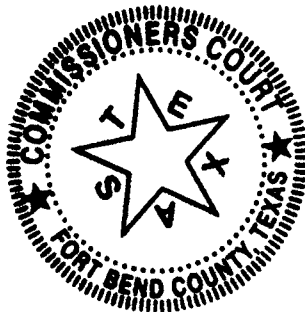
Fred Bauhof, P.E.  
Authorized Agent- Printed Name

ATTEST:

  
Dianne Wilson, County Clerk


Executive Vice President  
Title

July 8, 2014  
Date



**AUDITOR'S CERTIFICATE**

I hereby certify that funds are available in the amount of \$504,832<sup>00</sup> to accomplish and pay the obligation of Fort Bend County under this contract.

  
Robert Edward Sturdivant, County Auditor

## EXHIBIT A



Proposal No. 14-022rev  
June 18, 2014

Via E-mail: [stacy.slawinski@fortbendcountytexas.gov](mailto:stacy.slawinski@fortbendcountytexas.gov)

Mr. Richard W. Stolleis, P.E.  
County Engineer  
Fort Bend County  
301 Jackson  
Richmond, TX 77469  
281-633-7506

**Re: Proposal for Engineering Services to Design the Completion of Bellaire Boulevard from East of Parkway Lakes Lane to Lakehead Lane Fort Bend County, Texas**

Dear Mr. Stolleis;

R. G. Miller Engineers, Inc. (RGME) is pleased to submit this proposal for professional engineering and surveying services to Fort Bend County (FBC) for the above referenced project. This proposal is in accordance with our scoping meetings held at your office and with Stacy Slawinski in the field on March 6, 2014.

Currently Bellaire Boulevard within the project area includes intermittent sections of completed and partially completed concrete roadway with both closed system and open ditch drainage within a 100' ROW. Properties along the corridor consist mostly of residential homes with some vacant lots.

It is our understanding that RGME's scope of work is to provide Preliminary Engineering, Final Design Contract, and Construction Phase Engineering Services to develop construction documents for the completion of Bellaire Boulevard from east of Parkway Lakes Lane to Lakehead Lane as a continuous four-lane concrete boulevard roadway with a raised median, including storm sewer and drainage system and any necessary appurtenances. We further understand that the County would like to evaluate the use of low impact development (LID) techniques in the drainage system along the eastern end of the project area, from Mason Road to Lakehead Lane, if such techniques are feasible and provide cost savings along with aesthetic and environmental advantages.

## **GENERAL DESCRIPTION**

The work to be performed by the RGME under this scope of work consists of providing various roadway design engineering services for the completion of Bellaire Boulevard from east of Parkway Lakes Lane/Misty Morning Trace to Lakehead Lane. The corridor, approximately 10,400 feet in length, is broken into the following sections:

16340 park ten place, suite 350 - houston, texas 77084 - 713/461-9600 - fax 461-8455

East of Parkway Lakes Lane/Misty Morning Trace to west of S. Peek Road ~1,588 FT of paving

Complete the existing half section boulevard roadway to a four-lane boulevard with raised median and storm sewer system. Storm sewer trunk line and inlets for the existing half of the roadway have already been installed. The existing storm sewer should have been designed to include capacity for the proposed westbound lanes.

S. Peek Road to west of Sierra Bend Drive ~1,167 FT of paving

Complete existing half section boulevard roadway to a full four-lane boulevard with raised median and storm sewer system. Work will include the storm sewer trunk line and stage 2 inlets for the existing half of the roadway which have not been installed.

East of Sierra Bend Drive to Lakemont Bend Lane ~ 1,408 FT of paving

Design and construct a new four-lane boulevard with raised median and storm sewer system.

Lakemont Bend Lane to S. Mason Road ~ no new paving

No anticipated construction in this section. Review needs for continuity of roadway corridor such as modifications to signing and striping.

S. Mason Road to Lakehead Lane ~2,388 FT of paving

Design and construct a new four-lane boulevard with either a raised median and storm sewer system or a depressed median with a low impact development drainage system.

The following is a detailed list of tasks which will be performed by RGME.

## **GENERAL REQUIREMENTS**

### **Design Criteria**

1. The Engineer shall prepare all work in accordance with the latest version of the Fort Bend County (FBC) Regulations of Subdivisions and applicable FBC design standards and details. When design criteria are not identified in FBC manuals, the Engineer shall refer to the American Association of Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets (latest edition), TMUTCD and City Standards of any ETJ.
2. Produce roadway plans including typical-sections, specifications and estimates (PS&E) and prepare construction bid documents.
3. All designs for the above work will be in accordance with standards for Major Thoroughfares in the FBC "Regulations of Subdivisions" (latest edition).
4. The project is to be designed within the existing ROW.
5. Drainage system design will follow the recommendation of the existing drainage studies and will conform to the FBC Drainage District *Drainage Criteria Manual*, Revised 2011. Low impact development (LID) designs, if implemented, will follow Harris County's *Low Impact Development & Green Infrastructure Design Criteria for Storm Water Management*, April 2011.

6. Submit 30% plans during the preliminary engineering phase as well as 70%, and 95% PS&E packages for review by FBC Engineering. The final 100% set will incorporate any revisions from FBC comments on the 95% set.
7. The scope of this project will not include any improvements or changes to the cross streets except work on turn bays for S. Peek Road, if warranted by traffic studies, or signage and striping where needed.
8. Provide project planning and control to include quality management.
9. Provide an accurate, complete and constructible set of contract documents.
10. FBC will have the ultimate authority for determining what constitutes an accurate, complete and constructible set of contract documents.

## **100-PROJECT COORDINATION/MANAGEMENT**

RGME shall be responsible for directing and coordinating all activities associated with the project and to deliver the work on time.

### 010-Project Coordination

1. Provide general coordination with the Project team members concerning administrative and technical issues. Report and coordinate with FBC on any design issues and requests for information.
2. Internal administration of the project files. At the completion of the work, the project files will be shipped to the FBC, if requested.

### 020-Invoicing/Progress Reports

1. Prepare and submit monthly progress reports and invoices to FBC for review and approval. The invoices will include the progress report and invoice. The progress report will list outstanding issues that need resolution, as well as, progress of the tasks and estimated completion dates for the work.

### 030-Project Scheduling

1. Prepare an overall project design schedule detailing the progression of the work. This schedule will include review dates by FBC, submittal dates for deliverables, and estimated time frame to complete the work. The schedule will be updated monthly and included in the progress report. Changes or adjustments in the schedule caused by delays due to unforeseen task difficulties or lengthy review times will be shown and reported to the FBC.

#### 040-Progress Meetings

1. Attend coordination and interim progress review meetings every month or as necessary, to be scheduled on an as-needed basis. Prepare and distribute meeting minutes within five working days after the meeting.

## **200-PRELIMINARY ENGINEERING**

Prepare a Preliminary Design Memo (PDM) and 30% design submittal as described below.

#### 010-Collect Existing Data

1. Gather and review as-built drawings for Bellaire Boulevard and adjacent areas and roadways.
2. Collect and review as-built drawings for storm sewers, channels, ditches, drainage systems, detention basins, and other related systems in the project area.
3. Collect and review drainage studies, master drainage plans, and similar related drainage, floodplain, or stormwater management plans in the project area.
4. Collect and review property boundaries, jurisdictional boundaries, and right of way boundary information.
5. Collect and review existing traffic data, studies and plans pertaining to the project area.

#### 020-Conduct Field Reconnaissance

1. Perform site visits to observe and photograph existing conditions.
2. Observe existing utilities.
3. Observe existing drainage facilities.
4. Observe existing traffic, signage, and signal facilities.
5. Observe existing vegetation and landscaping features.

#### 030-Utility Coordination

1. Utilities will be researched and located in the field. RGME shall identify and coordinate with all utility companies for relocations required within these construction easements and/or right-of entries.
  - Collect as-built plans from all utilities having facilities within the project limits.
  - Send roadway design plans to all utility companies. Coordinate relocations or adjustments with utility companies.
  - Coordinate with FBC and adjacent MUDs during the identification of utility



conflicts.

- Prepare utility conflict list and submit to FBC at 30% submittal.
- Develop designs to avoid and/or minimize conflicts with existing and proposed utilities.

#### 040-Traffic Studies

1. FBC will provide current and future traffic information.
2. Utilize existing traffic data and perform warrant analysis for the intersection of Bellaire Boulevard at both S. Peek Road and S. Mason Road. Define any required future improvements at the intersection and provide an ultimate intersection design. The design will be used to define any extra ROW that will need to be acquired for this project to allow for the ultimate build-out of the intersection.

#### 050-Hydrological or Hydraulic Studies

1. Determine drainage areas associated with the project area.
2. Determine outfall depths and locations for all project related drainage areas.
3. Determine peak flow rates generated by design storms for each drainage area.
4. Size stormwater conveyances to handle peak flows and to result in water surface elevations that conform to applicable criteria.
5. The design and construction of all drainage systems within FBC shall comply with the established standard principles and practices given in the FBC "Drainage Criteria Manual, 2011".
6. Review existing data and confirm that the existing detention is adequate to mitigate the proposed improvements. This review will be coordinated with FBC, adjacent Municipal Utility Districts (MUDs) and the Levee Improvement District.

#### 060-Low Impact Development (LID) Evaluation Memorandum

(From Mason Road to Lakehead Lane)

1. Evaluate key design storm runoff flows and available conveyance capacity of roadside ditches and center median swales.
2. Evaluate depths and hydraulic grade lines associated with LID features and interconnected storm sewers to determine feasibility and available hydraulic head and tail water conditions.
3. Prepare conceptual design of LID features and determine right of way requirements.
4. Prepare conceptual planting plan, in concert with a professional landscape architect, consistent with Precinct and MUD expectations and requirements.
5. Estimate probable construction costs.
6. Determine landscaping and maintenance needs for LID option, in concert with a professional landscape architect.
7. Estimate probable maintenance costs.

8. Interact with FBC and MUDs to determine landscaping requirements or expectations and willingness to assume landscaping maintenance responsibilities.
9. Prepare draft and final LID Evaluation Memorandum that:
  - a. Presents a summary of evaluation methods;
  - b. Provides a narrative of findings including basic geometry, cross section of depressed center median roadway with LID features, and identifying any additional right of way requirements for proposed LID facilities;
  - c. Illustrates proposed facilities and landscaping in exhibits or renderings;
  - d. Summarizes discussions with MUDs and the Precinct;
  - e. Provides estimated construction and maintenance costs; and,
  - f. Recommends use or non-use of LID features.

#### 070-Review and Identify Right of Way Requirements

1. The project is to be designed within the existing ROW to the maximum extent possible.
2. Evaluate proposed roadway design alignments and identify the right of way requirements for the roadway segment from S. Mason Road and Lakehead Lane which does not currently have dedicated ROW.
3. Identify any design elements (sight triangles, additional turn bays, etc.) that may require additional ROW
4. Coordinate with the surveyor on dedications or acquisition of any additional ROW.

#### 080-30% Design Drawings

1. Provide 30% submittals for the design, including drainage design, for interim progress reviews by FBC.
2. Prepare and submit a set of 30% design drawing on 11"x17" plan sheets for review by FBC. The 30 % design plans will include the following design sheets:
  - a. Draft Cover Sheet
  - b. Typical Sections
  - c. Plan & Profile Sheets
  - d. Intersection Layouts
  - e. Drainage Area Map
  - f. Drainage Design Layout
  - g. Existing Utility Layout

#### 090-Preliminary Design Memorandum (PDM)

1. Prepare and submit a draft letter report entitled Preliminary Design Memorandum (PDM) which will:
  - a. Briefly summarize existing conditions in narrative and photographic format;
  - b. Identify key design issues and how they should be addressed;

- c. Identify proposed access, detour, and traffic control approaches to support construction activities;
  - d. Recommend appropriate construction phasing;
  - e. Recommend appropriate pavement type and cross section;
  - f. Recommend location and number of left turn lanes and median cuts;
  - g. Recommend signalization;
  - h. Recommend appropriate drainage system design elements including the possible use of LID techniques in the eastern segment of the project from Mason Road to Lakehead Lane;
  - i. Prepare an engineer's construction cost estimate.
2. Prepare and submit a final PDM based on FBC written comments.

### **300-FINAL DESIGN PHASE:**

Provide detailed construction plans, specifications, final design calculations and estimates as necessary for the improvements to Bellaire Boulevard based on the scope of work provided above and the results of the Preliminary Engineering Phase defined in the PDM and approved by FBC. Typical items during this phase include the following:

#### 010-Utility Coordination

1. Continue to provide utility coordination to address any potential conflicts on the project including the development of designs to avoid and/or minimize conflicts with existing and proposed utilities.

#### 020-Roadway

1. Prepare the roadway design and develop the final drawings. The following tasks describe the work to be performed:
  - Conduct field trips to the project site to investigate and confirm data and assumptions and assess general conditions as needed.
  - Geometric Design – using previously approved plans provided, define the horizontal and vertical alignments and typical sections to meet project requirements within existing ROW.
  - Prepare plan and profile sheets for roadway to a scale of 1"=20' horizontal and 1"=2' vertical on 22"x34" format sheets.

#### 030-Drainage

1. Conduct field trips to the project site to investigate and confirm data and assumptions and assess general drainage conditions as needed.
2. Prepare drainage area maps for proposed improvements within the project limits to be included in the project plan set.
3. The drainage calculations should be prepared to provide for the ultimate four-lane boulevard section. At a minimum the drainage items to be provided shall

include the drainage area maps showing the final drainage areas and inlet and storm sewer calculations for revised storm sewer flow elements. All drainage designs shall be prepared to conform to existing hydraulic studies identified in the Preliminary Engineering Phase.

4. Design and analyze the storm sewer system (including the existing system) utilizing the WINSTORM program or similar spreadsheet analysis program and incorporate calculations output to the project plan set.
5. Drainage system design will be completed depicting locations of inlets, manholes, storm sewers, culverts, utilities, channel improvements, and ditch locations with flow lines as required. This design will be incorporated into the Roadway Plan and Profile sheets to a scale of 1"=20' horizontal and 1"=2' vertical on 22"x34" format sheets. Profiles will show conveyance size and type, slope, existing and proposed grade lines, pertinent hydraulic information, and locations and sizes of inlets and junctions.

#### 040-Pavement Marking and Signing:

1. Prepare Pavement Marking and Signing Plans for the project as necessary and defined in the PDM, including modifications to existing signage and cross streets.

#### 050-General Notes and Specifications

1. Coordinate and combine general notes and specifications applicable to the project design. Prepare final general notes documents and specification list in Microsoft Word format. Use Harris County Public Infrastructure Department Standard Engineering Design Specifications for Construction and Maintenance of Roads and Bridges dated 2012, unless instructed otherwise.

#### 060-Quantity Take-offs and Quantity Summaries

1. Quantities for construction bid items will be calculated. The quantities will be summarized in tables and organized according to the bid item codes that will be used for construction. A quantity spreadsheet, organized by item per sheet and totaled for the item and the project, will be included with each submittal to FBC.

#### 070-Construction Cost estimate

1. An estimate of the construction costs will be prepared based on plan quantities in standard Harris County bid format at the 70%, 95%, and final submittal stages of the project. More detailed and refined quantities will be updated for each successive submittal. All estimates shall also be submitted in Microsoft Excel format.

#### 080-Miscellaneous Drawings

1. Project Title Sheet-RGME shall prepare a title sheet to be used for the construction plans.
2. Index of Sheets-RGME will complete a detailed Index of Sheets that identifies each sheet location in the plan set, as well as its corresponding sheet number. The Index of Sheets will be updated throughout the submittal process to allow for easier reference during the review process.
3. Horizontal Data Sheet-RGME shall prepare Horizontal Data Sheets

#### 090-Preparation and Submittal of PS&E

1. Provide submittals for the design, including drainage design, for interim progress reviews by FBC at the 70%, 95%, and final completion stage. Incorporate plan sheets and submittals prepared by any subconsultants for this project. All submittals will follow the FBC requirements for content.
2. The 70% submittal shall include three (3) sets of legible 11"x17" paper drawings, construction cost estimate, and electronic file of the drawings in Adobe Acrobat (pdf) format if requested.
3. The 95% submittal shall include three (3) sets of legible 22"x34" construction drawings, two (2) specification lists, draft Project Manual, construction cost estimate, and electronic file of the drawings in Adobe Acrobat (pdf) format if requested.
4. The final complete (Bid Ready) submittal shall include twenty (20) CDs with the electronic files of the Bid Ready set of drawings and specifications and Project Manual in Adobe Acrobat (pdf) format, two (2) complete sets of legible 22"x34" construction drawings, and two (2) complete sets of 11"x17" construction drawings.

### **500-CONTRACT-CONSTRUCTION PHASE:**

#### 010-Contract Phase Meeting

1. Attend Pre-bid meeting if required, furnish revisions related to an addendum, if required.
2. Bid Tabulation and recommendation of award will be performed by the Program Manager for FBC.

#### 015-Pre Construction Meeting

1. Attend and assist the County in pre-construction conferences.

#### 020-Submittal Reviews

1. Review, and submit comments on all project schedules as submitted by the Contractor.

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2. Review shop and working drawings, furnished by Contractors, for compliance with design concepts and specifications and with the information given in the contract documents.

#### 030-RFI Review and Response

1. Review all instructions, requests for information, and non-conformance reports as requested by FBC.
2. Review shop, laboratory and mill tests of material and equipment.
3. Provide Changes to plans as necessary to address construction issues.

#### 040-Monthly Construction Progress Meetings

1. Attend monthly and other project meetings as requested by FBC. Provide meeting minutes for each construction meeting.
2. Make periodic visits to become familiar with the project progress.
3. Participate with the FBC representatives in a substantial completion and/or final inspection of the Project.
4. Completion Letter.

#### 050-Construction Record Drawings

1. Provide final Record Drawings in Adobe Acrobat (pdf) format.

## **600-ADDITIONAL SERVICES**

#### 610-GEOTECHNICAL (See attached Scope from HVJ Associates, Inc.)

A budget will be included for an additional service to provide Geotechnical services. The budget shall include the following:

1. Soil borings, analysis, and recommendations for pavement subgrade design, storm sewer/culvert bedding, and trench safety, performed in accordance with typical FBC procedures.
2. Prepare a Geotechnical Investigation Report to include boring logs and pavement design and bedding recommendations for the anticipated structures.
3. Phase I ESA for environmental will be provided with a focus on the existing well location east of South Mason Road.

#### 620-SURVEYING (see attached Scope from Miller Survey Group):

A budget for Survey Services shall include the following:

1. Verify existing Right-of-Way (ROW) along the corridor, identify adjacent Property owners as needed. Coordinate with the engineer on areas that may require additional ROW, such as corner cuts, etc.
2. Survey and stake all proposed ROW as shown on the proposed design documents for the roadway, if needed. ROW acquisition may be required at the intersection of Bellaire Boulevard and S. Peek Road that may have a larger ultimate design than

the existing condition. ROW adjustments will also be necessary between S. Mason Road and Lakehead Lane. This service will include all field surveying and investigations to create a current ROW map.

3. Coordination with the Engineer, FBC and adjacent MUDs on any necessary dedications of ROW where no currently recorded ROW exists.
4. Tie coordinate geometry. All data gathered will be referenced to the Texas Coordinate System of 1983, South Central Zone by utilizing the City of Houston CORS Data Network with a tie to FEMA benchmarks.
5. Tie the soil boring locations.
6. Provide topographical survey and cross sections of the proposed roadway including cross sections at all cross streets along the project. The topographic survey shall extend a minimum of 100 feet at all intersecting streets and a minimum of 20 feet from the proposed ROW, wherever feasible; and shall include structures within 100 feet of the proposed ROW.
7. Locate and identify utility/pipeline conflicts with the proposed construction, including obtaining information from utility owners record drawings and site reconnaissance, as well as shooting elevations marked or uncovered by others.
8. Provide a Survey Control Index Sheet and Horizontal and Vertical Control Sheet signed, sealed and dated by a Registered Public Land Surveyor for insertion into the plans.
9. Property dedication will be by deed from the land owner to the County. No platting will be performed.

#### 630-LANDSCAPE SERVICES (see attached Scope from Asakura Robinson Company)

A budget can be added for an additional service to provide Landscape services if a LID drainage system is chosen during the Preliminary Evaluation. The budget shall include the following:

1. If use of a LID drainage system is approved by FBC from Mason Road to Lakehead Lane, prepare planting and irrigation plans in concert with a professional landscape architect.
2. Plans will be consistent with MUD and FBC expectations determined during Preliminary Engineering.

#### 640-STORM WATER POLLUTION PREVENTION PLANS (SW3P)

RGME shall develop SW3P, on separate sheets consistent with the project construction phases, to minimize sediment discharge from the project site through runoff to receiving waterways. SW3P will be performed by R.G. Miller Engineers.

1. Prepare an erosion control plan at a 1" = 100' scale or as directed by FBC. The plan will identify the SW3P components that will mitigate the impacts of construction activities. The Erosion Control Plan will be in compliance with FBC regulations and in accordance with the current Texas Commission on Environmental Quality (TCEQ), TPDES General Permit for storm water discharges associated with construction activities.

#### 650-CONSTRUCTION SEQUENCING AND TRAFFIC CONTROL

A budget will be included for an additional service to provide the following Traffic Engineering Services to be performed by R.G. Miller Engineers:

1. Prepare traffic control plans and details. The traffic control work consists of preparation of Traffic Control Plans (TCP), specifications and general notes, and cost estimate for the various traffic control measures
2. The Engineer shall prepare a TCP with a single phase of construction at a scale of 1" = 100' or as directed the County. The plan shall identify advanced warning signs on approaches, work areas, temporary paving, temporary signing, detour alignment, barricades, and other TCP related items. A narrative will be prepared and submitted to the County for review and incorporation into the plans.

#### 650-Traffic Signal Design

Design Traffic Signals as part of improvements at S. Peek Road and S. Mason Road if required by the Traffic Studies conducted during the Preliminary Engineering Phase and authorized by the County Engineer.

1. Based upon the results of the Traffic Warrant Studies, the Engineer shall identify and prepare Traffic Signal Plans for all warranted traffic signals at S. Peek Road and S. Mason Road. The Engineer shall confirm the power source for all signals and coordinate with the appropriate utility agency. Traffic Signal Plans shall be signed and sealed by a Texas Registered Professional Engineer. The Engineer shall develop all quantities, general notes, and specifications and incorporate appropriate agency standards required to complete construction. Traffic signal poles, fixtures, signs, and lighting shall be designed per the County's Traffic Engineer recommendations and standards. The following information shall be provided in the Traffic Signal Plans:
  - TRAFFIC SIGNAL LAYOUT – Show intersection layout showing signal pole/mast arm locations, conduit runs, loop detectors, lanes, and signal head arrangements, etc. Summary tables including all signal bid items should be shown for each signalized intersection. Traffic signal layouts shall be developed on separate sheets from other roadway details with a 1"=20" scale to show intersection layout detail. Signal Layout sheet will show signs and pavement markings as well as intersection geometry.
  - TRAFFIC OPERATION SHEET – Show traffic signal phasing and related information.
  - TRAFFIC SIGNAL DETAILS – Include sheets for any supplemental or non-standard details.
  - TRAFFIC SIGNAL STANDARDS - Include applicable standard traffic signal sheets.



## **FEE**

An estimated level of effort to perform the above services is shown on the attached Fee Schedule. Based on these estimates, it is recommended that the fees for the Basic and Additional Services be established as follows:

1. The items to be performed for Basic and Additional Design Services, with the exception of parcel acquisition documents by the surveyor, shall be compensated for a Lump Sum amount based on the estimated budget for each item submitted as part of the attached Fee Schedule.
2. Professional services to provide parcel acquisition documents, if required, shall be compensated on the basis of a per-parcel fee of \$1,500 per parcel as estimated in the attached fee schedule.
3. The Additional Services for Traffic Signal Design Basic shall be compensated for a Lump Sum amount based on the estimated budget for each item submitted as part of the attached Fee Schedule. The work will only be performed if warranted by traffic studies during the preliminary design phase and authorized in writing by the County Engineer prior to being performed and only for such work as actually performed
4. Professional services for the Contract and Construction Phases shall be compensated on hourly basis per the rates described in the attached fee schedule for work authorized in writing by the County Engineer prior to being performed and only for such work as actually performed.

### **Basic Engineering Fee**

The Total Basic Engineering Services Fee is divided into the following phases:

#### **100 - Project Coordination/Management**

(LUMP SUM)                      \$ 59,725.00

#### **200 - Preliminary Design**

(LUMP SUM)                      \$ 132,271.00

#### **300 - Final Design**

(LUMP SUM)                      \$ 152,275.00

#### **DIRECT EXPENSES**

(LUMP SUM)                      \$ 1,756.00

#### **500 – Contract-Construction Phase**

(HOURLY)                              \$ 26,562.00

### **Total Basic Engineering Fee**

**\$ 372,589.00**

### **Additional Services**

The Total Additional Engineering Services Fee is divided into the following phases:

<b><u>610 - Geotechnical (HVJ Associates, Inc.)</u></b>	(LUMP SUM)	\$ 16,812.00
<b><u>612 - Environmental (HVJ Associates, Inc.)</u></b>	(LUMP SUM)	\$ 4,280.00
<b><u>620 - Survey (MSG)</u></b>	(LUMP SUM)	\$ 46,455.00
<b><u>622 – Survey – Parcel Acquisition (MSG)</u></b>	(PER PARCEL)	\$ 4,500.00
<b><u>630 - Landscape Design Services (ARC)</u></b>		
Preliminary Evaluation Services	(LUMP SUM)	\$ 4,000.00
Final Design Services	(Added if a LID Drainage System is chosen)	
<b><u>632 - Landscape Construction Services (ARC)</u></b>	(Added if a LID Drainage System is chosen)	
<b><u>640 - SW3P (R.G. Miller)</u></b>	(LUMP SUM)	\$ 7,428.00
<b><u>650 - Traffic Control Plan (R.G. Miller)</u></b>	(LUMP SUM)	\$ 10,040.00
<b><u>660 – Record Drawings (R.G. Miller)</u></b>	(LUMP SUM)	\$ 2,628.00
<b><u>670 - Traffic Signal Design – S. Peek Road (R.G. Miller)</u></b>		
If Warranted and Authorized	(LUMP SUM)	\$ 18,050.00
<b><u>672 - Traffic Signal Design – S. Mason Road (R.G. Miller)</u></b>		
If Warranted and Authorized	(LUMP SUM)	<u>\$ 18,050.00</u>
<b>Total for Additional Services</b>	<b>=</b>	<b><u>\$ 132,243.00</u></b>
<b>TOTAL PROJECT FEE</b>	<b>=</b>	<b><u>\$504,832.00</u></b>

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## TIME OF PERFORMANCE

Preliminary Investigations and Design  
Final Design Phase

90 calendar days  
150 calendar days

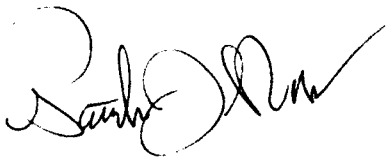
This proposal does not include any work concerning ADA accessibility review nor construction inspection or administration.

If additional services are required, RGME will prepare a work authorization defining the scope of services with an estimated cost based on the attached rate schedule and will not proceed until receiving a signed authorization from FBC. RGME will submit invoices monthly for payment by FBC. .

RGME will not exceed the fees outlined in this proposal without prior written authorization.

We look forward to working with you on this project.

Very truly yours,  
**R. G. Miller Engineers, Inc.**

A handwritten signature in black ink, appearing to read 'Patrick J. Ross', with a stylized flourish at the end.

Patrick J. Ross, P.E.  
Project Manager

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**EXHIBIT 'C'**  
**ENGINEERING FEE SCHEDULE**

PROJECT NAME: Bellaire Boulevard from East of Parkway Lakes Lane to Lakehead Lane  
 CONTRACT NUMBER:  
 PRIME PROVIDER NAME: R.G. MILLER ENGINEERS INC.

**FEE SUMMARY**

**R.G. Miller Engineers, Inc.**

SUMMARY		TOTAL COSTS TASK									
BASIC SERVICES		Payment Basis									
100-PROJECT COORDINATION/MANAGEMENT											\$59,725.00
200-PRELIMINARY ENGINEERING											\$132,271.00
300-DESIGN PHASE											\$152,275.00
DIRECT EXPENSES											\$1,758.00
500-CONTRACT-CONSTRUCTION PHASE											\$28,562.00
											\$372,589.00
ADDITIONAL SERVICES - To be Provided as Authorized											
610-GEOTECHNICAL (HVJ Associates, Inc.)											\$16,812.00
612-ENVIRONMENTAL (HVJ Associates, Inc.)											\$4,290.00
620-SURVEY (Miller Survey Group)											\$46,455.00
622-SURVEY-Parcel Acquisition (Miller Survey Group)											\$4,500.00
630-LANDSCAPE DESIGN SERVICES (Asakura Robinson Company)										(3 @ \$1,500 per Parcel)	\$4,000.00
632-LANDSCAPE CONSTRUCTION SERVICES (Asakura Robinson Company)											\$0.00
640-SWGP (R.G. Miller)											\$7,428.00
650-TRAFFIC CONTROL PLAN (R.G. Miller)											\$10,040.00
660-RECORD DRAWINGS (R.G. Miller)											\$2,628.00
670-TRAFFIC SIGNAL DESIGN (S Peak Road)											\$18,050.00
672-TRAFFIC SIGNAL DESIGN (S Mason Road)											\$18,050.00
											\$132,243.00
<b>GRAND TOTAL</b>											<b>\$504,832.00</b>

<b>SUMMARY</b>	
BASIC SERVICES	\$372,589.00
ADDITIONAL SERVICES	\$132,243.00
<b>GRAND TOTAL</b>	<b>\$504,832.00</b>

**EXHIBIT 'C'**  
**ENGINEERING FEE SCHEDULE**

PROJECT NAME: Bellaire Boulevard from East of Parkway Lakes Lane to Lakehead Lane  
 CONTRACT NUMBER:  
 PRIME PROVIDER NAME: R.G. MILLER ENGINEERS INC.

**BASIC SERVICES**

**R.G. Miller Engineers, Inc.**

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER II	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	SENIOR CADD OPERATOR	CLERICAL	TOTAL LABOR HRS. & COSTS
<b>100-PROJECT COORDINATION/MANAGEMENT</b>	\$186.00	\$195.00	\$138.00	\$129.00	\$80.00	\$87.00	\$87.00	\$62.00	
010-PROJECT COORDINATION	60			25					85
020-INVOICES/PROJECT PROGRESS REPORTS	30			60				20	110
030-PROJECT SCHEDULING	40			20					60
040-PROGRESS MEETINGS	70			60					130
HOURS SUB-TOTALS	200	0	0	165	0	0	0	20	385
TOTAL LABOR COSTS	\$37,200.00	\$0.00	\$0.00	\$21,285.00	\$0.00	\$0.00	\$0.00	\$1,240.00	\$59,725.00
<b>SUBTOTAL</b>									<b>\$59,725.00</b>

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER	SENIOR ENGINEER II	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	SENIOR CADD OPERATOR	CLERICAL	TOTAL LABOR HRS. & COSTS
<b>200-PRELIMINARY ENGINEERING</b>	\$186.00	\$195.00	\$138.00	\$129.00	\$80.00	\$87.00	\$87.00	\$62.00	
010-COLLECT EXISTING DATA	16			80	40	30			166
020-CONDUCT FIELD RECONNAISSANCE	8			30	15	10			63
030-UTILITY COORDINATION	8			40	24	20			92
040-TRAFFIC STUDIES	4			24	48	20			96
050-HYDROLOGICAL/HYDRAULIC STUDIES	16			60	48	24			148
060-LOW IMPACT DEVELOPMENT EVALUATION MEMORANDUM									
Evaluate Design Storm Flows and Swale Capacities		1		4					5
Evaluate Depths and HGLs		1		4					5
Prepare Concept Design of LID Features		2		8	2		8	4	24
Construction Cost Estimate		4		4					8
Proposed and MUD Meetings		6		16			8	4	34
Draft Memorandum		2		8			4	2	16
Final Memorandum									
070-REVIEW AND IDENTIFY RIGHT OF WAY REQUIREMENTS	4			16	4				24
080 - 30% DESIGN DRAWINGS	24			80	140	180	50		474
090-PRELIMINARY DESIGN MEMO	18			28	10		3		59
HOURS SUB-TOTALS	98	18	0	406	331	284	73	10	1220
TOTAL LABOR COSTS	\$18,228.00	\$3,510.00	\$0.00	\$52,374.00	\$26,480.00	\$24,708.00	\$6,351.00	\$620.00	\$132,271.00
<b>SUBTOTAL</b>									<b>\$132,271.00</b>

**EXHIBIT 'C'**  
**ENGINEERING FEE SCHEDULE**

PROJECT NAME: Bellaire Boulevard from East of Parkway Lakes Lane to Lakehead Lane  
 CONTRACT NUMBER:  
 PRIME PROVIDER NAME: R.G. MILLER ENGINEERS INC.

**BASIC SERVICES**

**R.G. Miller Engineers, Inc.**

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER II	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	SENIOR CADD	CLERICAL	TOTAL LABOR HRS. & COSTS
<b>300-DESIGN PHASE</b>	\$186.00	\$195.00	\$138.00	\$129.00	\$80.00	\$87.00	\$87.00	\$62.00	
010-UTILITY COORDINATION	5			20	14			11	50
020-ROADWAY	15			40	65	35	20		175
030-DRAINAGE	15			90	135	85	65		390
040-PAVEMENT MARKINGS AND SIGNING	15			30	40	50	30		165
050-GENERAL NOTES & SPECIFICATIONS	16			16	12				44
060-QUANTITY TAKE-OFFS AND QUANTITY SUMMARIES	4			24	40	16			84
070-CONSTRUCTION COST ESTIMATES	6			12	24				42
080-MISCELLANEOUS DRAWINGS	4			40	30	20	10		104
090-PREPARATION AND SUBMITTAL OF PS&E	16			40	40	60	40		196
70% PS&E SUBMITTALS	16			40	40	40	40		176
95% PS&E SUBMITTALS	4			16	10	16	8		54
100% PS&E SUBMITTALS									
HOURS SUB-TOTALS	116	0	0	368	450	322	213	11	1480
TOTAL LABOR COSTS	\$21,576.00	\$0.00	\$0.00	\$47,472.00	\$36,000.00	\$28,014.00	\$18,531.00	\$652.00	\$152,275.00
<b>SUBTOTAL</b>									<b>\$152,275.00</b>

**EXHIBIT 'C'**  
**ENGINEERING FEE SCHEDULE**

PROJECT NAME: Bellaire Boulevard from East of Parkway Lakes Lane to Lakehead Lane  
 CONTRACT NUMBER:  
 PRIME PROVIDER NAME: R.G. MILLER ENGINEERS INC.

**BASIC SERVICES**

**R.G. Miller Engineers, Inc.**

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER II	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	SENIOR CADD	CLERICAL	TOTAL LABOR HRS. & COSTS
<b>500-CONTRACT-CONSTRUCTION PHASE</b>	\$186.00	\$195.00	\$138.00	\$129.00	\$80.00	\$47.00	\$47.00	\$62.00	
010-CONTRACT PHASE	2			2				2	6
010-PRE-CONSTRUCTION MEETING	4			4					8
020-SUBMITAL REVIEW	8			60	40	10			118
030-RFI REVIEW AND RESPONSE	10			50	15	20			95
<b>HOURS SUB-TOTALS</b>	24	0	0	116	55	30	0	2	227
<b>TOTAL LABOR COSTS</b>	\$4,464.00	\$0.00	\$0.00	\$14,964.00	\$4,400.00	\$2,610.00	\$0.00	\$124.00	\$28,562.00
<b>SUBTOTAL</b>									\$28,562.00
<b>DIRECT EXPENSES</b>									
MILEAGE (@ \$0.56 per mile)	20 Trips x 30miles per trips		600	\$0.56					\$336.00
PHOTO COPIES (BW-8 1/2" x 11": @ \$0.06 per copy)			1500	\$0.06					\$90.00
PHOTO COPIES (BW-11" x 17": @ \$0.15 per copy)			1000	\$0.15					\$150.00
PHOTO COPIES (Color-8 1/2" x 11": @ \$0.60 per copy)			400	\$0.60					\$240.00
PHOTO COPIES (Color-BW-11" x 17": @ \$1.65 per copy)			200	\$1.65					\$330.00
Full Size Plots (BW-22" x 34": @ \$1.00 per copy)			400	\$1.00					\$400.00
DATA CD-ROMS (@\$3.00/EA)			20	\$3.00					\$60.00
DELIVERIES (@ \$15.00 per delivery)			10	\$15.00					\$150.00
<b>SUBTOTAL BASIC SERVICES</b>									\$1,756.00
<b>SUBTOTAL</b>									\$372,589.00

**EXHIBIT 'C'**  
**ENGINEERING FEE SCHEDULE**

PROJECT NAME: Bellaire Boulevard from East of Parkway Lakes Lane to Lakehead Lane  
 CONTRACT NUMBER:  
 PRIME PROVIDER NAME: R.G. MILLER ENGINEERS INC.

**ADDITIONAL SERVICES**

**R.G. Miller Engineers, Inc.**

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER II	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	SENIOR CADD OPERATOR	CLERICAL	TOTAL LABOR HRS. & COSTS
<b>ADDITIONAL SERVICES provided by R.G. Miller Engineers</b>									
660 - SWPPP	\$186.00	\$195.00	\$138.00	\$129.00	\$80.00	\$87.00	\$87.00	\$62.00	76
	4			16	36	20			
HOURS SUB-TOTALS	4	0	0	16	36	20	0	0	76
TOTAL LABOR COSTS	\$744.00	\$0.00	\$0.00	\$2,064.00	\$2,880.00	\$1,740.00	\$0.00	\$0.00	\$7,428.00
<b>SUBTOTAL</b>									<b>\$7,428.00</b>

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER II	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	SENIOR CADD OPERATOR	CLERICAL	TOTAL LABOR HRS. & COSTS
<b>ADDITIONAL SERVICES provided by R.G. Miller Engineers</b>									
660 - TRAFFIC CONTROL PLAN	\$186.00	\$195.00	\$138.00	\$129.00	\$80.00	\$87.00	\$87.00	\$62.00	96
	8			24	16	24	24		
HOURS SUB-TOTALS	8	0	0	24	16	24	24	0	96
TOTAL LABOR COSTS	\$1,488.00	\$0.00	\$0.00	\$3,096.00	\$1,280.00	\$2,068.00	\$2,068.00	\$0.00	\$10,040.00
<b>SUBTOTAL</b>									<b>\$10,040.00</b>

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER II	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	SENIOR CADD OPERATOR	CLERICAL	TOTAL LABOR HRS. & COSTS
<b>ADDITIONAL SERVICES provided by R.G. Miller Engineers</b>									
660-RECORD DRAWINGS	\$186.00	\$195.00	\$138.00	\$129.00	\$80.00	\$87.00	\$87.00	\$62.00	26
	2			4		20			
HOURS SUB-TOTALS	2	0	0	4	0	20	0	0	26
TOTAL LABOR COSTS	\$372.00	\$0.00	\$0.00	\$516.00	\$0.00	\$1,740.00	\$0.00	\$0.00	\$2,628.00
<b>SUBTOTAL</b>									<b>\$2,628.00</b>



**EXHIBIT 'C'**  
**ENGINEERING FEE SCHEDULE**

PROJECT NAME: Bellaire Boulevard from East of Parkway Lakes Lane to Lakehead Lane  
 CONTRACT NUMBER:  
 PRIME PROVIDER NAME: R.G. MILLER ENGINEERS INC.

**ADDITIONAL SERVICES**

**R.G. Miller Engineers, Inc.**

TASK DESCRIPTION	PROJECT MANAGER	SENIOR ENGINEER II	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	SENIOR CADD OPERATOR	CLERICAL	TOTAL LABOR HRS. & COSTS
<b>ADDITIONAL SERVICES provided by R.G. Miller Engineers</b>									
670-TRAFFIC SIGNAL DESIGN (S.Peak Road)	\$186.00	\$195.00	\$138.00	\$129.00	\$80.00	\$87.00	\$87.00	\$82.00	
SIGNAL LAYOUTS	2		16	16			24		58
SIGNAL DETAIL	2		16	16	8		24		66
SIGNAL QUANTITIES	1		2	4	2		4		13
SIGNAL STANDARDS	1		2				4		7
Construction Phase Services for Signals	2		8				2		12
HOURS SUB-TOTALS	8	0	44	36	10	0	58	0	156
TOTAL LABOR COSTS	\$1,488.00	\$0.00	\$6,072.00	\$4,644.00	\$800.00	\$0.00	\$5,046.00	\$0.00	\$18,050.00
<b>ADDITIONAL SERVICES provided by R.G. Miller Engineers</b>									
672-TRAFFIC SIGNAL DESIGN (S. Mason Road)									
SIGNAL LAYOUTS	2		16	16			24		58
SIGNAL DETAIL	2		16	16	8		24		66
SIGNAL QUANTITIES	1		2	4	2		4		13
SIGNAL STANDARDS	1		2				4		7
Construction Phase Services for Signals	2		8				2		12
HOURS SUB-TOTALS	8	0	44	36	10	0	58	0	156
TOTAL LABOR COSTS	\$1,488.00	\$0.00	\$6,072.00	\$4,644.00	\$800.00	\$0.00	\$5,046.00	\$0.00	\$18,050.00

**EXHIBIT 'C'**  
**ENGINEERING FEE SCHEDULE**

PROJECT NAME: Bellaire Boulevard from East of Parkway Lakes Lane to Lakehead Lane  
CONTRACT NUMBER:  
PRIME PROVIDER NAME: R.G. MILLER ENGINEERS INC.

**ADDITIONAL SERVICES**

R.G. Miller Engineers, Inc.

<b>SUMMARY</b>		<b>600-ADDITIONAL SERVICES LABOR EXPENSES (see attached Individual Budgets)</b>									
<b>610-GEOTECHNICAL</b> (HVJ Associates, Inc. - see attached Budget)											
Geotechnical Investigation and Report											\$16,812.00
<b>612-ENVIRONMENTAL</b> (HVJ Associates, Inc. - see attached Budget)											
Phase I ESA											\$4,280.00
<b>620-SURVEY</b> (Miller Survey Group - see attached Budget)											
1 - Design Survey of Right-of-way											\$19,650.00
2 - Right-of-way delineation											\$20,605.00
4 - Abstracing											\$6,000.00
<b>622-SURVEY/Parcel Acquisition</b> (Miller Survey Group - see attached Budget)											
3 - Parcel Acquisition documents (@ \$1,500 per Parcel)										(Estimate based on 3 parcels)	\$4,500.00
<b>630-LANDSCAPE DESIGN SERVICES</b> (Asakura Robinson Company - see attached Budget)											
1 - Low Impact Development Evaluation Memorandum											
2 - Preliminary Design Memorandum											\$2,000.00
3 - 30% Schematic Design											\$2,000.00
4 - 60%-90% Construction Documents											
5 - 100% Construction Documents											
<b>632-LANDSCAPE CONSTRUCTION SERVICES</b> (Asakura Robinson Company - see attached Budget)											
6 - Contract/Construction Phase services											
These services can be added if use of a LID drainage system is approved by FBC during the Preliminary Evaluation											
<b>640-SW3P</b> (R.G. Miller)											\$7,428.00
<b>650-TRAFFIC CONTROL PLAN</b> (R.G. Miller)											\$10,040.00
<b>660-RECORD DRAWINGS</b> (R.G. Miller)											\$2,628.00
<b>670-TRAFFIC SIGNAL DESIGN</b> (S. Peak Road)											\$18,050.00
<b>672-TRAFFIC SIGNAL DESIGN</b> (S. Mason Road)											\$18,050.00
<b>SUBTOTAL ADDITIONAL SERVICES</b>											<b>\$132,243.00</b>



Houston 6120 S. Dairy Ashford Rd.  
Austin Houston, TX 77072-1010  
Dallas 281.933.7388 Ph  
San Antonio 281.933.7293 Fax  
www.hvj.com

March 25, 2014

Mr. Patrick J. Ross, PE  
Manager – Transportation Department  
R. G. Miller Engineers  
16340 Park Ten Place, Suite 350  
Houston, Texas 77084

Re: Phase I Environmental Site Assessment Proposal  
Bellaire Blvd. from East of Parkway Lakes/Misty Morning to Lakehead Lane Project  
Fort Bend County, Texas  
Owner: Fort Bend County  
HVJ Proposal No.: HE1411961

Dear Mr. Ross:

HVJ Associates, Inc. is pleased to present this revised proposal for a Phase I Environmental Site Assessment (ESA) of the above captioned project area in Fort Bend County, Texas. This proposal is based on information supplied to HVJ Associates by R.G. Miller Engineers and outlines our approach to providing the assessment described in this proposal. We understand that project east of Parkway Lakes Lane/Misty Morning Trace to west of South Peek Road will involve approx. 1,588 ft. of paving, the project from South Peek Road to west of Sierra Bend Drive will involve approx. 1,167 ft. of paving, the project east of Sierra Bend Drive to Lakemont Bend Lane will involve approx. 1,408 ft. of paving, the project from Lakemont Bend Lane to South Mason Road will involve no new paving and the project from S. Mason Road to Lakehead Lane will involve approx. 2,388 ft. of paving. We understand that the Phase I ESA should focus on the existing well location east of South Mason Road. The project corridor is approx. 10,400 ft. in length.

**Phase I Environmental Site Assessment (ESA)**

Historical Review. The Phase I ESA will be based on ASTM Standard Practice E-1527-05 “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.” The Phase I ESA will include reviewing available current and historical aerial photographs (1940’s through 1990’s) and historical city directories. Historical directories will be reviewed for the main thoroughfares in the project area for five (5) decades. Due to the location of the project, fire insurance (e.g. Sanborn or other) rate maps should not be available. We will check our data sources and if no Sanborn maps are available, a Sanborn “no coverage” letter will be provided. Current and available historical USGS topographic maps will be reviewed. Historical chains-of-title (COTs) will not be obtained for the project.

Our historical data will be supplemented with interviews of knowledgeable parties, if those parties can be identified during the course of this study.

Regulatory Data. Environmental data will be obtained for registered hazardous waste and petroleum sites in the immediate vicinity of the site. Data will be obtained for the following types of sites:

Mr. Patrick J. Ross, PE  
HE1411961  
March 25, 2014

- Federal, state, and local government agency records concerning generation, use, storage, and disposal of hazardous wastes and/or regulated wastes;
- Leaking and registered petroleum storage tank sites adjacent to the property; and
- Federal and state spills and local HAZMAT response files in immediate vicinity.

Because of the location of the project area, oil and gas and water well searches will be conducted. Our scope includes a review of files of regulated environmental sites that may pose a concern to the project. We assume that there might be one or more sites whose files need to be reviewed (these are typically LPST sites and the review will take place at the TCEQ office in Houston).

Physical Setting. Our Phase I ESA will include a review of the local/regional hydrogeology and soil conditions to determine preferential pathways for the migration of contaminants to or from the site.

Site Reconnaissance. Our site reconnaissance will be conducted on all streets and right of ways where proposed drainage activities are planned. Interviews will be conducted with key site individuals of regulated environmental sites and sites that may store or use potential contaminants. Adjoining properties will be observed for the potential to impact the site and any regulated sites adjacent to the property will be observed. Photographs will be taken during our site visit.

Review of Previous Study. Our services will include a review of any previous studies that may be available for the site or site area.

Reporting. Following our review of data, site reconnaissance and data analysis, a report will be prepared summarizing our findings and conclusions. The report will include: a summary of our field observation data; figures and/or drawings depicting general, environmental, and geologic conditions; a review for the potential for contamination to impact the site; and recommendations for further environmental studies (if necessary).

### **Fee and Schedule**

Based on the scope of work outlined, the lump sum fee for our services is \$4,280 and a detailed cost breakdown sheet is attached. Should chains-of-title be required for this project, an additional charge will apply. A review of title and judicial records for environmental liens or activity and use limitations (AULs) can be provided at an additional charge (see Conditions section below). A breakdown of our fees for the Phase I ESA project is attached.

Approximately five weeks will be required to complete this study. Requests for information from government agencies may require additional time for them to respond. Two draft reports will be forwarded to R.G. Miller Engineers (and others if requested) for review. After report review and approval by R.G. Miller Engineers and/or others, four final reports will be submitted.

### **Conditions**

We request that a "User Questionnaire" be completed by the user to assist the user and environmental professional in gathering information from the user that may be material to identifying recognized environmental conditions. In addition, according to the ASTM guidance document, a search of available recorded land title records and lien records should be conducted by the user to identify environmental liens and their use limitations that are imposed by judicial authorities. Any environmental liens or activity and use limitations so identified should be reported to the environmental professional conducting the Phase I ESA.

R.G. Miller Engineers will be responsible for providing a site plan, with facility and utility locations shown, suitable for use as a base map for our site reconnaissance. In addition (if applicable), R.G.

Mr. Patrick J. Ross, PE  
HE1411961  
March 25, 2014

Miller Engineers will be responsible for arranging permission to access the site area for our reconnaissance and coordinating access to the site if necessary.

Notice to proceed must be in writing. Insurance certificates verifying HVJ Associates' general liability, auto, workers' compensation, and errors and omissions insurance coverage, listing R.G. Miller Engineers as a certificate holder, will be provided upon request. Our accounting procedures call for the submittal of invoices on a month-end basis or at the conclusion of the project should its duration last less than a month.

HVJ Associates, Inc. is pleased to be of service on this project. Please call the undersigned at 281.804.5766 if you have any question or require additional information.

Sincerely,

**HVJ ASSOCIATES, INC.**



Edward F. Hawkinson, PG, MS, MBA  
Project Manager

EH/MM:abm

Agreed to this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Telephone: 281.921.8749

Date to Start Work: \_\_\_\_\_

**Bellaire Blvd. from East of Parkway Lakes/Misty Morning to Lakehead Lane Project**

**R. G. Miller Engineers**

**HVJ Associates Proposal No.: HE1411961**

**March 25, 2014**

**Phase I Environmental Site Assessment**

**Project Management/Administration**

Project Manager	2.0 hr @	\$95.00 per hour	\$190.00
<b>Subtotal</b>			<b>\$190.00</b>

**Field Investigations**

Site Reconnaissance (Environmental Scientist)	5.0 hr @	\$95.00 per hour	\$475.00
Interviews (Environmental Scientist)	1.0 hr @	\$95.00 per hour	\$95.00
Vehicle	1.0 day @	\$80.00 per day	\$80.00
<b>Subtotal</b>			<b>\$650.00</b>

**Historical Directories Review in Library**

Environmental Scientist	4.0 hr @	\$95.00 per hour	\$380.00
Vehicle	1.0 day @	\$80.00 per day	\$80.00
<b>Subtotal</b>			<b>\$460.00</b>

**Historical Directory Data Reduction**

Environmental Scientist	3.0 hr @	\$95.00 per hour	\$285.00
Clerk/Typist	1.0 hr @	\$45.00 per hour	\$45.00
<b>Subtotal</b>			<b>\$330.00</b>

**TCEQ File Records Review at TCEQ Office**

Environmental Scientist	2.0 hr @	\$95.00 per hour	\$190.00
Vehicle	1.0 day @	\$80.00 per day	\$80.00
<b>Subtotal</b>			<b>\$270.00</b>

**Outside Purchases and Direct Costs**

ESA Data Set	1.0 @	\$600.00 each	\$600.00
Floodplain Map(s)	1.0 @	\$15.00 each	\$15.00
Historical Topos	1.0 @	\$50.00 each	\$50.00
Sanborn Fire Insurance Maps (no coverage letter)	1.0 @	\$50.00 each	\$50.00
<b>Subtotal</b>			<b>\$715.00</b>

**Analysis and Reporting**

Senior Engineer, PE	1.0 hr @	\$125.00 per hour	\$125.00
Environmental Scientist	14.0 hr @	\$95.00 per hour	\$1,330.00
CAD Operator	2.0 hr @	\$60.00 per hour	\$120.00
Clerk/Typist	2.0 hr @	\$45.00 per hour	\$90.00
<b>Subtotal</b>			<b>\$1,665.00</b>
<b>Total</b>			<b>\$4,280.00</b>

**Environmental lien data that may be required for this project will be at an additional cost.**



Houston 6120 S. Dairy Ashford Rd.  
Austin Houston, TX 77072-1010  
281.933.7388 Ph  
Dallas 281.933.7293 Fax  
San Antonio [www.hvj.com](http://www.hvj.com)

March 25, 2014 (Revised June 12, 2014)

Mr. Patrick J. Ross, PE  
R. G. Miller Engineers  
16340 Park Ten Place, Suite 350  
Houston, TX 77084

Re: Geotechnical Investigation  
Bellaire Boulevard Improvements  
From East of Parkway Lakes Lane/Misty Morning Trace to Lakehead Lane  
Fort Bend County, Texas  
Owner: Fort Bend County  
HVJ Proposal No.: HG1411960

Dear Mr. Ross:

In response to your request HVJ Associates, Inc. is pleased to submit this revised proposal for providing a geotechnical study for the above-mentioned project. The proposal has been revised to increase the spacing between the borings to 1,000 feet as requested by R. G. Miller Engineers. This proposal outlines our understanding of the scope, approach and our fees for providing the study.

We understand that the project consists of design and construction of pavement and storm sewers for the completion of Bellaire Boulevard from east of Parkway Lakes Lane/Misty Morning Trace to Lakehead Lane in Fort Bend County, Texas. The storm sewers will be of 42-inch diameter with a maximum invert depth of about 10 feet. The corridor, approximately 10,400 feet in length, is broken into the following sections:

East of Parkway Lakes Lane/Misty Morning Trace to west of S. Peek Road ~1,588 FT of paving  
Complete the existing half section boulevard roadway to a four-lane boulevard with raised median and storm sewer system.

S. Peek Road to west of Sierra Bend Drive ~1,167 FT of paving  
Complete existing half section boulevard roadway to a full four-lane boulevard with raised median and storm sewer system.

East of Sierra Bend Drive to Lakemont Bend Lane ~ 1,408 FT of paving  
Design and construct a new four-lane boulevard with raised median and storm sewer system.

Lakemont Bend Lane to S. Mason Road ~ no new paving  
No anticipated construction in this section.

Mr. Patrick J. Ross, PE  
HG1411960 (Revision 1)  
June 12, 2014

S. Mason Road to Lakehead Lane ~2,388 FT of paving

Design and construct a new four-lane boulevard with either a raised median and storm sewer system or a depressed median with a low impact development drainage system.

We understand that the proposed storm sewers will be installed by open cut. The purpose of this study is to provide design and construction recommendations for the proposed pavement and storm sewers.

**Scope of Work**

We propose to drill a total of ten (10) 15-foot borings, spaced approximately at intervals of 500 feet or less. The total drilling footage will be approximately 225 feet. The number and depth of borings are presented below:

Section	Approx. Length (feet)	Approx. Invert Depth of Storm Sewer (feet)	Proposed Boring Depth (feet)	No. of borings	Total Footage
West of Mason Road	6,000	10	15	6	90
East of Mason Road	4,000	10	15	4	60
				<b>10</b>	<b>150</b>

The borings will be drilled continuously to 10 feet and at 5-foot intervals thereafter. When necessary, the pavement will be cored at the borehole locations prior to drilling and pavement thickness information obtained from the cores will be included in the report. Traffic control will be used during the field operations when needed. A portion of the section between S. Mason Road to Lakehead Lane will require site clearance.

All boreholes will be backfilled with soil/bentonite. Borings on existing pavement will be backfilled with soil/bentonite up to one foot, and cement plug to the surface. Soil samples will be obtained using 3-inch diameter Shelby tubes for cohesive soils and using a 2-inch split-barrel sampler for non-cohesive soils. Soil samples will be properly sealed and packaged in the field and will be transported to the laboratory for testing. All the field and laboratory tests will be performed according to ASTM standards, where applicable, or with other well-established procedures. The type and number of laboratory testing are shown on the attached cost estimate. However, these may vary based on the soil conditions encountered at the site.

The borings will be used to determine site stratigraphy and to obtain samples for laboratory testing. All the field and laboratory tests will be performed according to ASTM standards, where applicable, or with other well-established procedures. Results of the field and laboratory data will be used to develop recommendations for utilities design and construction.



Mr. Patrick J. Ross, PE  
HG1411960 (**Revision 1**)  
June 12, 2014

A report of our study will be prepared by an engineer specializing in soil mechanics and foundation engineering after reviewing available structural, geological, boring, and laboratory data. In general, the following items will be included in our report:

- Boring logs and test data,
- Groundwater conditions,
- Generalized subsurface conditions,
- A literature review of surface faults near the project areas from published reports
- Rigid pavement and subgrade design and construction recommendations
- Recommendations for storm sewer installation by open-cut techniques, and
- Structural fill requirements and general earthwork recommendations.

The following items will be also provided after completing the final report:

- An electronic copy of the final report
- Trench safety recommendations letter.

### **Schedule**

We anticipate to complete a draft report in approximately six to eight weeks, following our receipt of your written notice to proceed. We anticipate to complete the final report in two weeks after receiving the comments on the draft report. If requested, verbal recommendations can be provided throughout the progress of the investigation as testing is completed.

Two draft copies of each of our geotechnical reports will be delivered for review by R. G. Miller, Inc. and the County. After approval of our draft report by R. G. Miller, Inc. and the County, two final copies of the report will be submitted.

### **Fee and Conditions**

Based on the scope of work outlined, the estimated not to exceed fee for our services is \$16,812.00. The exact fee will be based on actual time and material incurred by not exceeding the estimated fee without prior approval from R. G. Miller, Inc. A detailed cost estimate for the proposed work is attached. This estimate is made with the assumption that the site is accessible to truck-mounted drilling equipment, except for the portion of the section between S. Mason road and Lakehead Lane which will require site clearance.

Our accounting procedures call for the submittal of invoices on a month-end basis or at the conclusion of project should its duration last less than a month. Payment will be due within 15 days after R. G. Miller, Inc. receives payment from Fort Bend County.

The scope of work described is appropriate for the project configuration presented to us. If anomalous conditions are encountered, or if the project configuration changes significantly, a change in work scope may be required. HVJ Associates will recommend such changes when and if it is deemed necessary. No changes will be implemented without prior authorization from R. G. Miller, Inc.

Laboratory samples will be held for no more than a period of 6 months after completion of the draft report or 3 months after completion of the final report, whichever is less. R. G. Miller, Inc. will be responsible for providing a site plan suitable for use as a base map for our plan of borings. In addition, R. G. Miller, Inc. will be responsible for surveying the horizontal and vertical locations upon completion of drilling. If needed, HVJ Associates will provide assistance in locating the borehole locations. Also, R. G. Miller, Inc. will be responsible for providing the ESALs/Traffic Count for the pavement design.

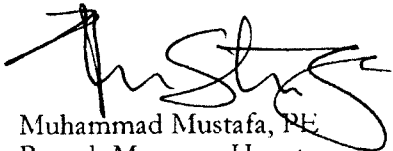
Mr. Patrick J. Ross, PE  
HG1411960 (**Revision 1**)  
June 12, 2014

If this proposal meets with your approval, please sign and complete the indicated spaces below and forward a copy of the proposal to us.

HVJ Associates, Inc. is pleased to be of service on this project. Please call us if you have any questions or require additional information.

Sincerely,

**HVJ ASSOCIATES, INC.**



Muhammad Mustafa, PE  
Branch Manager, Houston

MM/ND:pc

Agreed to this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Phone Number: \_\_\_\_\_ 713-461-9600 \_\_\_\_\_

Date to Start Work: \_\_\_\_\_

**GEOTECHNICAL ESTIMATE****Bellaire Boulevard Improvements From East of Parkway Lakes/Misty Morning To Lakehead Lane****Client: R. G. Miller**

HVJ Proposal No. HIG1411960 (Revision 1)

June 12, 2014

**TABLE - GEOTECHNICAL BREAKDOWN****Field Exploration**

Mob./Demob	1	@	\$300.00	LS	\$300.00
Drilling and Sampling	150	ft @	\$18.00	per ft	\$2,700.00
Grouting	150	ft @	\$5.00	per ft	\$750.00
Field Technician (rig, traffic coordination, utilities, staking, etc)	12	hr @	\$45.00	per hour	\$540.00
Vehicle Trips (staking, utilities, etc)	12	hr @	\$7.50	per hour	\$90.00
Cores (up to 7 inches thick)	4	@	\$90.00	each	\$360.00
Site Clearance (Bull Dozer)	1	day @	\$1,500.00	per day	\$1,500.00
Traffic Control (Police Officer)	8	hr @	\$45.00	per hour	<u>\$360.00</u>
			<b>Subtotal</b>		<b>\$6,600.00</b>

**Laboratory Testing**

Moisture Content (ASTM D-2216)	45	@	\$8.00	each	\$360.00
Unconsolidated Compression (ASTM D-2166)	10	@	\$39.00	each	\$390.00
Atterberg Limits (ASTM D-4318)	32	@	\$53.00	each	\$1,696.00
Percent Passing #200 Sieve (ASTM D-1120)	10	@	\$41.00	each	\$410.00
Moisture/Density Relationship (ASTM D-698)	1	@	\$130.00	each	\$130.00
California Bearing Ratio (ASTM D-1883)	1	@	\$140.00	each	\$140.00
Unconsolidated Undrained (ASTM D-2850)	20	@	\$54.00	each	<u>\$1,080.00</u>
			<b>Subtotal</b>		<b>\$4,206.00</b>

**Engineering, Report Preparation and Administration**

Senior Engineer, P.E.	4	hr @	\$123.00	per hour	\$492.00
Project Manager	16	hr @	\$96.00	per hour	\$1,536.00
Staff Engineer	40	hr @	\$82.00	per hour	\$3,280.00
Engineering Assistant	8	hr @	\$76.00	per hour	\$608.00
Clerk/Typist	2	hr @	\$45.00	per hour	<u>\$90.00</u>
			<b>Subtotal</b>		<b>\$6,006.00</b>

**TOTAL GEOTECHNICAL SERVICES****\$16,812.00**




**P.G. Miller**  
 engineers  
 16000 South Loop West  
 Suite 200  
 Houston, Texas 77057-2010  
 (713) 461-1000  
 Texas Professional Engineering No. 7487

BELLAIRE BLVD., PEEK RD &  
 BEECHNUT BLVD.  
 EXHIBIT

**LEGEND**  
 EXISTING ROAD ALIGNMENT  
 PROPOSED ROAD ALIGNMENT  
 PROPOSED ROAD WIDENING

LEGEND: ● APPROXIMATE BORING LOCATIONS

		6120 S. Durr - added Final Houston, Texas 77072-2010 (713) 775-1111 281.053.2201 Fx	
DATE: 06/12/2014	APPROVED BY: NM	PREPARED BY: AK	
PLAN OF BORINGS BELLAIRE BOULEVARD IMPROVEMENTS			
PROJECT NO.: HG1411960		DRAWING NO.: PLATE 1	





January 16, 2014

email: [aforrest@rgmiller.com](mailto:aforrest@rgmiller.com)

Amber Forrest  
RG Miller Engineers  
16340 Park Ten Place, Suite 350  
Houston, Texas 77084

RE: Proposal for surveying services in connection with right-of-way survey and mapping for Bellaire Boulevard from Grand Parkway to Lakehead Lane in Fort Bend County, Texas.

Dear Amber,

We are pleased to submit this proposal to provide the following services for the aforementioned project for the amount indicated for each item:

**Task 1 – Right-of-Way Design Survey**

This service will include all the field surveying services required to meet the Fort Bend County Standards for Design Surveys and will include cross sections of 20' outside of right-of-way lines. All data gathered will be referenced to the Texas Coordinate System of 1983, South Central Zone by utilizing the COH CORS Data Network with a tie to FEMA benchmarks. Note: Design survey for areas with full paving (green on exhibit map will only cover tie-in information)

Fee = \$19,850.00

**Task 2 – Right-of-Way Delineation**

This service will include all of the field surveying and other investigations required to create a current right-of-way base map. Included will be a horizontal and vertical control sheet set.

Fee = \$20,605.00

**Task 3 – Parcel Acquisition (Cost per Parcel)**

As requested by Fort Bend County, prepare parcel documentation for each parcel required and include parcel map plus metes and bounds description. Upon approval, field stake parcel (number of parcel acquisition is unknown at this time)

Fee = \$1,500.00 per parcel

1760 WEST SAM HOUSTON PARKWAY NORTH ★ HOUSTON, TEXAS 77043  
PHONE 713-413-1900 ★ FAX 713-413-1944  
FIRM REGISTRATION NO. 10047100

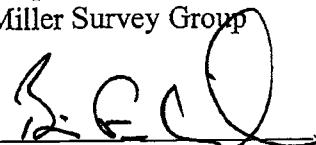
Task 4 – Abstracting

We will obtain the services of an abstractor to provide record deed, plats and easements to complete base map and parcel acquisition maps.

Fee = \$6,000.00 (not to exceed)

Payment shall be due and payable within 30 days of receipt of invoice for same. Your signature on this proposal and emailed or faxed back to us will constitute acceptance and notice to proceed.

Respectfully submitted:  
Miller Survey Group

  
\_\_\_\_\_  
Brian E. Wilson, R.P.L.S.  
Survey Manager

Accepted:

\_\_\_\_\_  
By:  
Date: \_\_\_\_\_

**Asakura Robinson Company LLC**

Landscape Architecture Division, Fort Bend County, Texas

1902 Washington Ave., Suite A, Houston, TX 77007

p. 713.337.5830 f. 832.201.7198 www.asakurarobinson.com

January 31, 2014

Mr. Michael Bloom, P.E.

**R.G. Miller Engineering**

16340 Park Ten Place, Suite 350, Houston, TX 77084

**Re: Request for Landscape Architecture Proposal  
Bellaire Blvd. Extension, Fort Bend County, TX**

On behalf of Asakura Robinson (**Consultant**), we thank you for the opportunity to submit this proposal to R.G. Miller Engineering (**Client**) for landscape design of 2,400 lineal feet of Bellaire Boulevard extension from Lakehead Lane to Mason Road, Ft. Bend, TX.

Per our discussions, we propose to provide the following services for fees described:

**A. Scope of Work**

**I Project Description**

Consultant shall provide the following professional Landscape Design services and materials required to develop project landscaping plans that are in compliance with and conform to Regulations of Ft. Bend County, Texas.

Consultant assumes the responsibility for providing the Landscape Design services required and will provide all necessary supervision and coordination of activities that may be required to complete Consultant's obligation, which is subject to the approval and concurrence required from Client and Ft. Bend County.

**GENERAL REQUIREMENTS**

**Design Criteria**

1. The Consultant shall prepare all work in accordance with the latest version of the Fort Bend County Regulations of Subdivisions and applicable Fort Bend County design standards and details.
3. All designs for the above work will be in accordance with standards for Major Thoroughfares in the Fort Bend County "Regulations of Subdivisions" (latest edition).

4. The project is to be designed within the existing ROW.
5. Drainage system design will follow the recommendation of the existing drainage studies and will conform to the Fort Bend County Drainage District Drainage Criteria Manual, Revised 2011. Low impact development (LID) designs, if implemented, will follow Harris County's Low Impact Development & Green Infrastructure Design Criteria for Storm Water Management, April 2011.
6. Submit 30%, 95% and 100% (Mylar) PS&E packages for review by Fort Bend County (FBC) Engineering, Development and Road & Bridge. The final 100% set will incorporate any revisions from FBC comments on the 95% set.
7. The scope of this project will not include any improvements or changes to the cross streets.
10. Providing an accurate, complete and constructible set of contract documents.

## **II Scope of Work**

### **TASK 1.0: Low Impact Development Evaluation Memorandum**

Upon issuance of Notice to Proceed, Consultant shall perform the following:

- Attend one task kick-off meeting with Client to discuss task deliverables, schedule and concepts.
- Conduct site visit to document and photograph surrounding site character, identify trees for which tree protection will be required, and identify trees whose removal will require mitigation.
- Attend one meeting with Client to discuss storm water quality and planting requirements for the project.
- Prepare conceptual planting plan consistent with Precinct and MUD expectations and requirements.
- Estimate probable construction costs.
- Determine landscaping and maintenance needs for LID option.
- Estimate probable maintenance costs.
- Interact with Precinct and MUDs to determine landscaping requirements or expectations and willingness to assume landscaping maintenance responsibilities.

### **TASK 2.0: Preliminary Design Memorandum (PDM)**

Upon authorization of Client:

- Assist Client with input for PDM
- Revise a concept planting plan, if required
- Revise preliminary planting list and estimate of probable costs, if required

### **TASK 3.0: 30% Schematic Design**

Upon authorization of Client:

- Prepare, present and revise 30% Schematic Design plan based on Client's comments.



- Develop and furnish landscape plans within the project limits. Landscape plans shall
  - Use plan and profile drawings provided by Client to create base file drawings for use in developing landscape design and plans
  - Use line codes and symbologies in accordance with Ft. Bend County Public Infrastructure Engineering Division.
  - Include a tree planting schedule.
  - Include plants applicable to LID projects.

**TASK 4.0: 95% Construction Documents**

Upon approval by the Client of the Schematic Design (30%) in Task 3.0, this task will consist of documents and scope listed below. The general objective for this phase of the work is to further develop the design character and detail of the proposed landscape architectural plan. The level of technical information for this phase will be for coordination, review and cost estimating purposes and will provide the additional specific level of information for construction documentation and bidding of Tasks 5 and 6.

- Second Submittal-Provide Client with completed constructible landscaping plans that will be included in the 95% submittal package. 95% Landscaping plans shall include:
  - Tree protection plans, if necessary
  - Overall planting plans
  - Detail planting plans
  - Planting details
  - Irrigation plans and details
  - Technical specifications
  - Estimated cost of construction, with pay items itemized with associated unit costs
  - Provide Client with landscaping quantities and associated unit prices, written special provisions, and a list of applicable specifications based on the 95% landscaping plans.This information shall be included with the 95% landscaping plans submittal to Client.
- Revise landscaping plans in accordance with County and Client 95% review comments.

**TASK 5.0: 100% Construction Documents**

Upon approval by the Client of the Construction Documents (95%) in Task 2.0, this task will consist of documents and scope listed below. The general objective for this phase of the work is to complete the details of the proposed landscape architectural plans. The level of technical information for this phase will be for permit, bidding, construction and cost estimating purposes and will provide the additional specific level of information for construction documentation and bidding.

- Third Submittal-Submit 100% landscaping plans, signed and sealed by a landscape architect registered in the state of Texas, to Client along with landscaping quantities and associated unit prices, written special provisions, and a list of applicable specifications based on the 100% landscaping plans.
- Identify trees along the project corridor that require protection during construction.

- Identify trees along the project corridor that will require mitigation due to their removal to accommodate proposed construction (Tree mitigation plan is not included in the scope of work. If a tree mitigation plan is required, a supplemental agreement with Harris County will be sought)
- Attend up to two coordination meetings throughout task.
- Prepare work in accordance with Client's schedule and instructions.

**TASK 6.0: Bidding/Construction Observation**

Upon approval by the Client of the Construction Documents (100%) in Task 3.0, this task will consist of documents and scope listed below.

- Upon approval by the client of Phase 3.0, Asakura Robinson Co. will attend one pre-bid conference and respond to applicable Requests for Information (RFI) relating to the bid documents.
- Attend up to three (3) visits during irrigation and landscape construction to verify adherence to Construction Documents and prepare field notes to be issued to Client.
- Prepare Punch List at substantial completion of irrigation and landscape construction and issue punch list report to Client

**B. Compensation**

Fees for Professional Services will be billed as follows:

<b>TASK 1.0:</b>	<b>Low Impact Development Evaluation Memorandum</b>	<b>\$ 2,000.00</b>
<b>TASK 2.0:</b>	<b>Preliminary Design Memorandum (PDM)</b>	<b>\$ 2,000.00</b>
<b>TASK 3.0:</b>	<b>30% Schematic Design Package</b>	<b>\$ 2,500.00</b>
<b>TASK 4.0:</b>	<b>95% Construction Documents</b>	<b>\$ 6,400.00</b>
<b>TASK 5.0:</b>	<b>100% Construction Documents</b>	<b>\$ 2,000.00</b>
<b>TASK 6.0:</b>	<b>Contract/Construction Phase</b>	<b>\$ 1,700.00</b>
<b>TOTAL</b>		<b>\$ 16,600.00</b>

1. The fees and reimbursable costs shall be invoiced monthly as a percentage of work completed and actual costs for reimbursable items. Invoices are payable net 30 days from date of issuance. Reimbursable costs are not included in the Compensation fees above. Reimbursable costs shall not exceed **\$900.00** without prior approval by Client.
2. Reimbursable Items include: Copies of drawings, plots, copies; automobile travel at current IRS rate; fees for approved additional consultants; and other expenses incurred as a result of services specifically requested by the Client.

**C. Exclusions to Scope of Services and Additional Services**

1. Client shall provide the following information as required for performance of the work. ARC assumes no responsibility for the accuracy of such information or services and shall not be

liable for errors or omissions therein. Should ARC be required to provide services in obtaining or coordinating compilation of this information, such services shall be charged as Additional Services.

- a) Topography, boundary surveys and Legal descriptions of property.
- b) Existing site Engineering and utility base information.
- c) Soils Engineering, Geo-technical, Structural, MEP and other Consultant services if required.

2. Additional Services include but are not limited to:

- a) Work requested and or authorized by the Client not defined in the 'Scope of Work' or revisions and changes to Client approved drawings and the preparation of alternatives or change orders requested by the Client.
- b) Preparation of as-built drawings or of measured drawings or existing conditions.
- c) Models, special renderings, promotional photography, special printing, special equipment, special printed reports or publication, maps, and documents requested by the Client.

Hourly rates for Additional Services:

Keiji Asakura	Principal	\$ 187/hr
Margaret Robinson	Principal	\$ 170/hr
Pat Chang	Principal	\$ 144/hr
Staff	3.0 x direct personal expense (DPE)	

**D. Jurisdiction and Termination**

JURISDICTION – The Texas Board of Architectural Examiners has jurisdiction over complaints regarding the professional practices of persons registered as landscape architects in Texas. The Board may be reached at the following address: Texas Board of Architectural Examiners, P.O. Box 12337 Austin, TX 78711-2337 Phone / (512) 305-8900.

TERMINATION - If the Client should decide to terminate this Agreement, he shall give ARC seven (7) days written notice and shall pay for all services rendered to the date of termination. ARC reserves the right to terminate this contract upon fifteen (15 ) days' notice if any amount billed to client is 90 days past due.

If this proposal meets your approval, please sign and return one copy at your earliest convenience. We look forward to working with you on this exciting project.

Sincerely,

MR ROBINSON

Margaret Robinson, PLA, LEED AP

Principal

**Asakura Robinson Company LLC**

January 31, 2014

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**R.G. Miller Engineering**

Date: \_\_\_\_\_