

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 Sirrus Engineers, Inc., (hereinafter "Consultant"), a company authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, County desires that Consultant provide professional engineering services for improvements to West Airport Boulevard at State Highway 6 under 2020 Mobility Bond Project No. 20402 (hereinafter "Services") pursuant to SOQ 14-025; and

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

WHEREAS, Consultant 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

Consultant shall render the professional engineering services as described in Consultant's proposal attached hereto as Exhibit A, and incorporated herein for all purposes.

Section 2. Personnel

2.1 Consultant 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 Consultant 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 Consultant shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Consultant 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 Consultant's fees shall be calculated at the rates set forth in the attached Exhibit A. The Maximum Compensation for the performance of Services within the Scope of Services described in Exhibit A is two hundred thirty-four thousand one hundred ninety-seven dollars and no/100 (\$234,197.00) as set forth in Exhibit A. In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without a written agreement executed by the parties.

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

Section 4. Limit of Appropriation

4.1 Consultant clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of two hundred thirty-four thousand one hundred ninety-seven dollars and no/100 (\$234,197.00) specifically allocated to fully discharge any and all liabilities County may incur.

4.2 Consultant does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Consultant may become entitled to and the total maximum sum that County may become liable to pay to Consultant shall not under any conditions, circumstances, or interpretations thereof exceed two hundred thirty-four thousand one hundred ninety-seven dollars and no/100 (\$234,197.00).

Section 5. Time of Performance

Time for performance of the Scope of Services under this Agreement shall begin with receipt of the Notice to Proceed and end no later than December 31, 2025. Consultant shall complete the tasks described in the Scope of Services, within this time or within such additional time as may be extended by the County.

Section 6. Modifications and Waivers

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

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

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

Section 7. Termination

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

7.2 Termination for Default

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

7.2.1.1 If Consultant 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 Consultant 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 Consultant 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 Consultant 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. Consultant'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 Consultant.

Section 8. Ownership and Reuse of Documents

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

Section 9. Inspection of Books and Records

Consultant will permit County, or any duly authorized agent of County, to inspect and examine the books and records of Consultant 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, Consultant 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. Consultant shall provide certified copies of insurance endorsements and/or policies if requested by County. Consultant 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. Consultant shall obtain such insurance written on an Occurrence form (or a Claims Made form for Professional Liability insurance) from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:

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

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

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

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

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

10.2 County and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability. All Liability policies including Workers' Compensation written on behalf of Consultant 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, Consultant 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

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

Section 12. Confidential and Proprietary Information

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

12.2 Consultant agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Consultant 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. Consultant 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, Consultant shall advise County

immediately in the event Consultant 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 Consultant will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Consultant against any such person. Consultant agrees that, except as directed by County, Consultant 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, Consultant will promptly turn over to County all documents, papers, and other matter in Consultant's possession which embody Confidential Information.

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

12.5 Consultant 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 Consultant

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

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

Section 14. Notices

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

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

County: Fort Bend County Engineering Department
Attn: County Engineer
301 Jackson Street
Richmond, Texas 77469

With a copy to: Fort Bend County
Attn: County Judge
401 Jackson Street, 1st Floor
Richmond, Texas 77469

Consultant: Sirrus Engineers, Inc.
3100 Timmons Lane, Suite 500
Houston, Texas 77027

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

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

Section 16. Standard of Care

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

Section 17. Assignment

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

17.2 Neither party may delegate any performance under this Agreement.

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

Section 18. Applicable Law

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

Section 19. Successors and Assigns

County and Consultant 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 Consultant release any material or information developed or received in the performance of the Services

hereunder without the express written permission of County, except where required to do so by law.

Section 23. Captions

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

Section 24. Conflict

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

Section 25. Certain State Law Requirements for Contracts

For purposes of sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Consultant hereby verifies that Consultant and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:

25.1 Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization, is not identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.

25.2 If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts. "Boycott Israel" has the meaning provided in section 808.001 of the Texas Government Code.

25.3 If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. "Boycott energy company" has the meaning provided in section 809.001 of the Texas Government Code.

25.4 If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. "Discriminate against a firearm entity or firearm trade association" has the meaning provided in section 2274.001(3) of the Texas Government Code. "Firearm entity" and "firearm trade association" have the meanings provided in section 2274.001(6) and (7) of the Texas Government Code.

Section 26. Human Trafficking

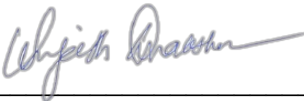
BY ACCEPTANCE OF AGREEMENT, CONSULTANT ACKNOWLEDGES THAT THE COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

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

FORT BEND COUNTY

SIRRUS ENGINEERS, INC

KP George, County Judge



Authorized Agent – Signature

Date

Sujeeth Draksharam
Authorized Agent – Printed Name

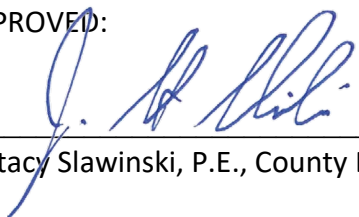
ATTEST:

President
Title

Laura Richard, County Clerk

12/20/2021
Date

APPROVED:



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

AUDITOR'S CERTIFICATE

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

Robert Ed Sturdivant, County Auditor

EXHIBIT A

EXHIBIT A – Scope of Services

Project Name: West Airport Boulevard

**Project Limits: At the Intersection of S.H. 6
Fort Bend County**

Fort Bend County has requested a proposal for Engineering Design of the West Airport Boulevard Intersection with State Highway (SH) 6 for additional turn lanes. This Scope includes, preliminary studies, design services, bid and Construction phase services to add a right turn lane for Westbound approach and a left turn for East bound with a storage lane for the existing left turn lane. It's anticipated that TxDOT permit will be required

PROJECT LIMITS AND SCOPE

This project is on West Airport Boulevard at the SH 6 Intersection and consists of adding a right turn lane for Westbound approach and a left turn for East bound with a storage lane for the existing left turn lane.

Description of Phases

The following descriptions of the phases are generic in nature and may include descriptions of scope not necessary for this project. The consultant is responsible for insuring that all necessary studies, report, approvals, and any other task using necessary Fort Bend County design criteria necessary to accomplish the project in accordance with Fort bend County's defined scope are completed and approved.

Preliminary Engineering Phase:

The Preliminary Engineering Report shall serve as a summary document that incorporates the recommendations from the supporting investigative reports, results from working meeting with Fort Bend County, necessary approvals and final recommendations from the Consultant's efforts. The document will serve as the framework for the design phase, having addressed the major issues that affect the roadway design and supporting infrastructure.

An outline of those sections that are required for the Preliminary Engineering Report, including the exhibits and attachments is as identified below. This Preliminary Engineering Report shall include the preparation and approval of reports necessary to support the recommendations and design of the roadway and all appurtenances included, but not limited to, Geotechnical Investigations, ROW Parcel acquisition recommendations, utility conflicts identification, Drainage Studies. The preparation of preliminary construction documents will be substituted with a schematic layout as defined below. The Consultant shall present the results of this Preliminary Engineering Report investigation and analysis and their recommendations status of

the of the project to include, but not limited to, Survey/Right-of-Way Maps, Roadway Alignment, Geotechnical, ROW Parcel acquisition recommendations, Drainage Concept, Drainage Report, Utilities, and Variances.

The consultant shall participate in the following meetings with Fort Bend County Project Management Team (PMT) and other meetings as necessary: Project kick-off meeting, Field working meeting, Alignment meeting and drainage meeting. Environmental and Traffic studies or signal are not part of this scope and its understood that PMT shall provide these if needed as part of separate scope.

The Preliminary Engineering Report shall include identification and any Utility conflicts with the proposed improvements and include, but limited to:

- Identify all existing utilities within the existing and proposed rights-of-way.
- Provide list of existing utilities with owner and contact information
- Schematic Layout of Roadway and Detention
 - Provide a plan view layout with sufficient detail to insure that the final design can be constructed without any major issues. Include the location of shoulder and roadside ditches. The schematic layout shall be at a scale of 1" = 40' on 11"x17" sheets. Include a Cover Sheet with a Vicinity Map with the project limit. The schematic should show the pavement marking concept so that traffic movements can be considered and reviewed during the study phase. Provide the proposed typical sections on the schematic. Typical Sections shall be drawn at 1"=20' horizontal and 1" = 2' vertical scale on 11"x17" sheets.
 - Sight Distance - The consultant shall investigate sight distance restrictions and general operating conditions of all existing and proposed intersections within the project limits.
- Cost Estimates
 - Provide a preliminary construction cost estimate.
- Utility Tables
 - Provide a table of the existing utilities. The table shall include ID number for the potential conflicts, stations at the left right-of-way, the centerline, and right right-of-way, the utility in conflict, the owner of the utility, contact name, address, phone number, and email address, notes, and an estimated cost to relocate if necessary. Identify the conflict on the schematic with the ID number.
- ROW Acquisition Table
 - Provide a table of parcels to be acquired for those parcels intersecting the proposed ROW line. The table shall include a parcel ID number, acreage (and square footage) to be acquired, acreage of the parent tract, acreage remaining of the parent tract, current owner, recording information, current floodplain zone, notes. The table shall be accompanied by Right-of-Way maps, an Aerial Roll Plan identifying the proposed improvements with existing and proposed ROW.
- Existing right-of-way maps

- Abstracting for all adjacent roadway ROW tracts consisting of record documents for current adjoining land owner's deed and easements adjoining the existing right-of-ways and the existing right-of-way dedication documents, field surveys to locate existing boundary corners or tracts, existing right-of-way and front corners of nearby structures, boundary and right-of way analysis and prepare a signed and sealed drawings of the existing right-of-way to Category 1A Condition II.
- TxDOT Coordination
 - SH 6 is a TxDOT roadway and the West Airport additional lanes shall require coordination and compliance with TxDOT. The pavement tie-in shall be in accordance with TxDOT and any drainage which is currently accessed by the TxDOT shall be maintained. The necessary TxDOT permit forms shall be filled as part of this scope and TxDOT

Surveying and Mapping

The Surveyor shall evaluate the existing ROW envelope and make recommendations for the acquisition of ROW necessary for the Project including but not limited to roadway, corner cuts, sight distance triangles, detention, and outfalls. The Surveyor shall prepare a ROW Acquisition Table which shall include a parcel ID number, acreage (and square footage) to be acquired, acreage of the parent tract, acreage remaining of the parent tract, current owner, recording information, current flood plain zone, and note any issues that may affect the acquisition of the parcels. The scope and fee from the sub-consultant is attached to this exhibit.

Geotechnical Investigation

The scope and fee from the sub-consultant is attached to this exhibit.

Traffic Signal Design

The scope and fee from the sub-consultant is attached to this exhibit.

Drainage Report

The scope for work for this Drainage Mitigation Study is to support additional roadway development.

- **Drainage Mitigation Study**

The purpose of this task is to prepare a Drainage Mitigation Study to determine the 100-year storm impacts resulting from construction of the project and to develop and analyze alternatives to mitigate these impacts. The following tasks describe the work to be performed:

Prepare 100-year storm drainage area maps for existing and proposed conditions, which include the typical Fort Bend County roadway improvements within the project limits and the proposed right of way (ROW).

Compute existing and proposed peak flows based on the Fort Bend County methodology within the existing and proposed ROW.

Compute required 100-year storage volumes within the ROW to determine mitigation requirements for the proposed condition.

Prepare existing and proposed hydrographs at each outfall location to develop mitigation alternatives to implement the required 100-year mitigation.

Prepare a Drainage Mitigation Preliminary Engineering Report to summarize and document the findings of this study. The report will include the following items at a minimum:

Provide electronic draft copies of the report for PMT review and upon approval.

DELIVERABLES

The Submittal shall include the submittal of the preliminary plans on 11"x17" (paper or electronic, no mylar), and an updated cost estimate. The cost estimate shall be the Bid Form with the cost and quantities filled in.

One electronic copy of each draft report will be provided to the client and PMT. Upon review and comment by the PMT, Consultant will make revisions to each draft report and resubmit one electronic copy of the final report.

- Variances
 - Should any variances be required, a letter request shall be submitted and approved prior to the submittal of the Preliminary Engineering Report. The variance shall include the variance sought along with the reasons the variance is necessary. The requested should include support documentation from other design guidelines and any risk associated with the request.

Design Phase:

The design phase of the project shall consist of the preparation of completely approved construction documents that reflect the approved Preliminary Engineering Report.

The Design submittal shall build upon the framework identified in the Preliminary Engineering Report and include roadway design, profiles, drainage system and

appurtenances, details and the bid documents necessary for a complete design review.

A construction traffic control meeting shall be held for communicating the significant construction traffic control concepts and to enable review and discussion at the meeting: phasing overview drawing, a typical cross-section(s) for each major phase and the final traffic control along with detail plans shall show the temporary transitions at the ends of the project, if off-site detours are anticipated, a detour concept sketch.

SH 6 is a TxDOT roadway and coordination and compliance with TxDOT will be required. TxDOT permit forms shall be filled as part of this scope and submitted along with the final design plans for TxDOT permit approval.

A USPS box has to be relocated as part of the roadway design and as such coordination and removal are part of this scope. This project is within the City of Sugar Land limits and coordination and approval will be required.

Also included in this phase shall be the preparation of the Metes and Bounds Descriptions for parcels and/or easements identified in the abstracting which generally are authorized after review and approval of the recommended acquisitions at the Client Presentation Meeting.

Design Phase - will have two submittals

- 1) 1st Submittal
 - pdf plan (11x17)
 - Reports - SWPPP and SWQMP if required, geotechnical report
 - Construction Cost Estimate (Excel)
- 2) Final Submittal for Bidding
 - Cover Sheet will include signed Utilities Company block
 - pdf plan (11x17 and 22X34)
 - Reports - SWPPP and SWQMP if required, geotechnical report
 - Construction Cost Estimate (Excel)

Bid Phase:

The bid phase of the project shall consist of the preparation of the final bid documents, pre-bid meeting, preparation of addenda, preparation of bid tabs, Engineer's estimate into the Bid Tab, and average of the 3 lowest bidders and recommendation of awards.

Construction Phase:

Construction phase services include attending meetings, field inspection, project request for information and review shop drawing submittals for compliance with the project specifications and plans and final inspection.

Date: Nov. 16, 2021

\$234,197.00



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

May 11, 2021 **(Revised October 11, 2021)**

BY ELECTRONIC TRANSMISSION

Mr. Sujeeth Draksharam, PE
President
Sirrus Engineers, Inc.
3100 Timmons Lane, Suite 500
Houston, Texas 77027

Re: Geotechnical Investigation
West Airport Boulevard at State Highway 6
Precinct 4
Fort Bend County, Texas
Owner: Fort Bend County
HVJ Proposal No. HG2110190

Dear Mr. Draksharam:

HVJ Associates, Inc. is pleased to submit this proposal for providing geotechnical services for the above-mentioned project. This proposal outlines our understanding of the scope, our approach and our fees for providing the study.

Project Description:

The project involves intersection improvements along West Airport Boulevard eastbound and westbound approaches at SH 6 intersection in Fort bend County, Texas. This includes addition of right turn lane for westbound approach, left turn lane for eastbound approach, and relocation of storm sewer inlets. The actual invert depth of the storm sewers is unknown at this time. It was assumed that the invert depth will not exceed 5 feet below the existing grade. The length of alignment will not exceed 500 feet in each direction from the intersection. The purpose of this study is to provide pavement design recommendations for the proposed turn bays, design and construction recommendations for the utilities.

Scope of Work

We propose to drill two 10-foot soil borings for the pavement design and storm sewers. The borings will be sampled continuously to the termination depth of the borings. 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. All boreholes will be backfilled with cement grout by tremie method. The depth at which ground water is encountered during drilling shall be measured and recorded. 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 pavement design and utilities installation. A report of our findings will be prepared by an engineer

Mr. Sujeeth Draksharam, PE
HG2110190
October 11, 2021 (Revision 2)

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 the report:

- Boring logs and test data,
- Groundwater conditions,
- Generalized subsurface conditions,
- Existing pavement thickness,
- Concrete pavement design recommendations,
- Recommendations for utilities installation by open-cut techniques,
- Structural fill requirements and general earthwork recommendations.

Deliverables

Electronic draft copy of the report will be delivered. After your review and any comments, a final copy of the geotechnical study will be submitted. The final report will also be submitted in electronic form.

Schedule

We expect to complete this assignment in approximately six weeks, following our receipt of your written notice to proceed. If requested, verbal recommendations can be provided throughout the progress of the investigation as testing is completed.

Fees and Conditions

Based on the scope of work outlined the estimated fee for these services is \$6,721. A detailed cost estimate for the proposed work is attached to this proposal.

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. Our credit terms are net 30 days. It is assumed that borehole locations can be accessed with a truck mounted drilling equipment.

Laboratory samples will be held for no more than a period of 30 days following completion of the final report, or 120 days following completion of the draft report.

Sirrus will be responsible for providing a site plan, with existing facilities shown, suitable for use as a base map for our plan of borings and field reconnaissance. We will field locate the borings with respect to existing facilities at the site and mark them for surveying as needed. Our proposal does not include the costs of precise surveying of the horizontal and vertical location of the borings.

Insurance certificates verifying HVJ Associates' general liability, auto, workers' compensation, and errors and omissions insurance coverage, listing Sirrus as a certificate holder will be provided upon request.

Mr. Sujeeth Draksharam, PE
HG2110190
October 11, 2021 (Revision 2)

HVJ Associates, Inc. is pleased to be of service on this project. If this proposal meets with your approval, please forward a copy of the sub consultant agreement for our review and execution. Please call us if you have any questions or require additional information.

Sincerely,

HVJ ASSOCIATES, INC.



Anil K. Raavi, PE
Professional Services Manager

GEOTECHNICAL ESTIMATE**West Airport Boulevard at SH 6****Client: Sirrus Engineers, Inc.**

HVJ Proposal No. HG2110190

May 11, 2021 **(Revised October 11, 2021)****TABLE - GEOTECHNICAL BREAKDOWN****2x10-foot Borings****Field Exploration**

Mobilization/Demobilization	1 @	\$400.00	LS	\$400.00
Drilling and Sampling (continuous)	20 ft @	\$25.00	per ft	\$500.00
Drilling and Sampling (intermittent)	0 ft @	\$23.00	per ft	\$0.00
Grouting (Tremie Method to full depth of the borings)	20 ft @	\$12.00	per ft	\$240.00
Project Engineer (Traffic Control Plans, Permit and Field Coordination)	2 hr @	\$165.00	per hour	\$330.00
Field Technician (rig coordinaton, utilities, staking, logging)	8 hr @	\$55.00	per hour	\$440.00
Vehicle Trips (staking, utilities, etc)	8 hr @	\$12.00	per hour	\$96.00
Concrete Coring, Minimum Charge (2 cores)	1 @	\$400.00	minimum	\$400.00
Traffic Control Services - Lane Closure	1 @	\$825.00	per day	\$825.00
Subtotal				\$3,231.00

Laboratory Testing

Moisture Content (ASTM D-2216)	4 @	\$11.00	each	\$44.00
Atterberg Limits (ASTM D-4318)	4 @	\$71.00	each	\$284.00
Percent Passing #200 Sieve (ASTM D-1120)	3 @	\$55.00	each	\$165.00
Unconfined Compressive Strength (ASTM D-2166)	2 @	\$51.00	each	\$102.00
Unconsolidated Undrained (ASTM D-2850)	0 @	\$72.00	each	\$0.00
Moisture/Density Relationship (ASTM D-698)	0 @	\$231.00	each	\$0.00
California Bearing Ratio (ASTM D-1883)	0 @	\$243.00	each	\$0.00
Opimum Lime Content - PI Method	0 @	\$274.00	each	\$0.00
Subtotal				\$595.00

Engineering, Report Preparation and Administration

Senior Engineer, P.E.	1 hr @	\$205.00	per hour	\$205.00
Project Engineer, P.E.	5 hr @	\$165.00	per hour	\$825.00
Staff Engineer, EIT	15 hr @	\$115.00	per hour	\$1,725.00
Admin	2 hr @	\$70.00	per hour	\$140.00
Subtotal				\$2,895.00

TOTAL**\$6,721.00**

Revised October 21, 2021

Mr. Sujeeth Draksharam, P.E.
Sirrus Engineers, Inc.
3100 Timmons Lane, Suite 500
Houston, Texas 77027

Re: Proposal for Professional Traffic Signal Design Services
West Airport Boulevard at State Highway 6
Fort Bend County, Texas
EHRA No. 211-048-00

Dear Mr. Draksharam:

Edminster, Hinshaw, Russ & Associates, Inc. d/b/a EHRA (Engineer) is pleased to submit this proposal to Sirrus Engineers, Inc. (Client) to provide professional Traffic Signal Design services for the intersection of West Airport Boulevard at State Highway (SH) 6 in Fort Bend County, Texas.

This effort shall be based on the proposed roadway schematic and PS&E by Client; the guidelines found in the Texas Manual on Uniform Traffic Control Devices; Texas Department of Transportation (TxDOT) and Fort Bend County's design criteria, standards and specifications.

PROJECT UNDERSTANDING

Existing West Airport Boulevard is an east-west, four-lane divided roadway with curbs and gutters. SH 6 is a north-south roadway with six (6) lanes. The intersection of West Airport Boulevard and SH 6 is currently controlled by a traffic signal. As part of Client's scope, West Airport Boulevard is proposed to be widened near the intersection with SH 6 to provide one (1) additional eastbound left-turn lane and one (1) additional westbound right-turn lane.

The existing traffic signal is no longer up to TxDOT current design standards. Based on Client's comments, a new signal is proposed to be constructed at the intersection of West Airport Boulevard at SH 6 in conjunction with the roadway improvements.

BASIC SERVICES

Engineer will prepare plans, specifications and estimates (PS&E) for the installation of a new traffic signal at the intersection of West Airport Boulevard at SH 6, according to TxDOT signal design guidelines and Fort Bend County maintenance requirements. The overall signal system will be designed based on the existing topographic survey, proposed roadway design, ROW information, lane geometry/configurations, provided by Client, in electronic format (.dgn or .dwg). The new signal system shall be fully actuated with loop detection for vehicles and push buttons for pedestrians, and controlled by a TxDOT standard controller in a ground-mounted cabinet. Pedestrian related signals, push buttons, signing and crosswalks

will be applied across all legs, or as directed by project needs. The intersection will have wheelchair ramps in compliance with the Americans with Disabilities Act (ADA).

The traffic signal design plans will include traffic signal notes, estimates and quantities, existing conditions sheet, proposed signal layout sheets, signal elevation sheets, and TxDOT standard detail sheets. The proposed signal layout sheets will include roadway geometrics, pedestrian crosswalk and stop lines, ADA ramps, location and configuration of traffic and pedestrian signal heads, vehicle detection system, pole location, luminaires, location of controller cabinet and electrical service, pull box location, conduit runs and cable size (electrical schedule) and overhead mounted traffic signal related signs.

Based on the preliminary investigation of the intersection widths and potential widening needs, standard TxDOT long mast arm and poles are anticipated to be adequate to accommodate the new traffic signal design. If a customized mast arm pole should be necessary due to utility or other conflicts, additional geotechnical testing and structural design services may be needed.

Site-specific traffic control plan, which is not included in the traffic signal design scope; is part of the roadway improvement scope to accommodate roadway and traffic signal construction. Based on preliminary analysis, existing traffic signal is able to operate during proposed signal construction. Temporary signalization (during construction) is not required. Assuming temporary traffic control or signalization is required based on final design, Engineer will provide design and supports as listed in Additional Services.

The following services are not included in the scope:

- Traffic Control Plans
- Topographic Survey & Construction Staking
- Signal Interconnect Sheets
- Signal Timing Development and Implementation
- Signing and Striping
- Roadway Plan
- Temporary Signal
- Customized Traffic Signal Pole and Arms
- Geotechnical Services

COORDINATION

Engineer will closely coordinate with Client to obtain latest updates on design and requirements. The coordination will focus on:

- Fort Bend County requirements and instructions
- Survey needs and updates
- Roadway plans and updates
- Right-of-way



- Utility and other conflicts

CONSTRUCTION SERVICES

Client will oversee construction services. Engineer will provide construction services limited to traffic signal bidding items and quantity, traffic signal related bidding documents, and traffic signal construction related field consultation.

DELIVERABLES

Plan layouts shall be prepared in English units at 1"=20' scale, reduced to half-sized drawings (1"=40'). Two (2) interim review submittals will be made at 50% and 90% level of completion. The 50% review submittal will include the 11" x 17" signal design plans at a 50% level of completion. The 90% review submittal will include 11" x 17" signal design plans and all applicable standards and specifications. In addition, the basis of estimate in Harris County format will be submitted at 90%. All review comments will be addressed prior to the next submittal. The last submittal will be final (100%) 11" x 17" mylar plans and an estimate of probable construction costs. All design drawings shall be prepared utilizing microstation V-8 or AutoCad. Signal design plans and related documents will be signed, sealed, and dated by the registered State of Texas Professional Engineer responsible for the drawings.

ADDITIONAL SERVICES

Additional work beyond the Scope of Services described above will be considered an Additional Service and will subsequently be negotiated. Engineer will not proceed with any Additional Services without prior written authorization by Client. Any Additional Services not contemplated under this Agreement can only be provided by a separate contract or change order.

COMPENSATION

The fixed fee for the above-mentioned effort to perform basic traffic signal design at the intersection of West Airport Boulevard at SH 6 is \$32,150, including \$30,270 for design services and \$1,880 for construction services. Please see Attachment "B" for the labor-hour estimate and cost breakdown. The fee includes all labor and non-labor reimbursable expenses required for this project.

SCHEDULE

The services provided by Engineer shall be coordinated with the services provided by Client. Work shall start after a written Notice to Proceed (NTP) is received; and is contingent upon the availability of information and electronic files to be provided by Client.



PAYMENT

Engineer shall submit monthly invoice(s) for services rendered and for reimbursable expenses incurred. Client shall make prompt monthly payment(s) in response to Engineer's invoice(s).

Additional work beyond the Scope of Services described above will be considered an Additional Service and will subsequently be negotiated. Engineer will not proceed with any Additional Services without prior written authorization by Client. Any Additional Services not contemplated under this Agreement can only be provided by a separate contract or change order.

The General Conditions (Exhibit "A") of this proposal are attached hereto and made a part hereof for all purposes.

If all terms and provisions are acceptable to you, please signify so by executing this document in the appropriate space provided. Please retain one (1) executed copy for your records and return one (1) executed copy to the undersigned. We will consider receipt of this executed document as our authorization to proceed.

We thank you for the opportunity to provide professional Traffic Signal Design services and we look forward to working with you on this project.

CLIENT AND ENGINEER AGREE AS SET FORTH.

CLIENT

ENGINEER

SIRRUS ENGINEERS, INC.

**EDMINSTER, HINSHAW, RUSS
& ASSOCIATES, INC. d/b/a EHRA**

By: _____
Sujeeth Draksharam, P.E.

By: _____
Shichen "Jessica" Jia, P.E., PTOE
Senior Project Manager

Effective Date: _____

Date: _____

By: _____
A. Hasan Syed, P.E.
Executive Vice President

Date: _____

SJJ/sf
Attachments: Exhibit "A" – General Conditions
Exhibit "B" – Labor-Hour Estimate and Cost Breakdown



EXHIBIT "A"
GENERAL CONDITIONS

CLIENT'S RESPONSIBILITY (SURVEYING): Easements and other restrictions of record, unless depicted on a recorded plat, will be noted based on a current title insurance commitment or title report together with copies of the relevant documents all of which will be provided by the Client.

SURVEYOR'S/ENGINEER'S RESPONSIBILITY: The Surveyor/Engineer hereby represents and warrants to the Owner/Client that the Surveyor/Engineer is licensed by the State of Texas to perform the work, is experienced in the performance of the work similar to the work to be performed, and is competent to perform the work. The Owner/Client is relying upon the expertise of the Engineer/Surveyor in its performance of the work.

ADDITIONAL SERVICES: If authorized by the Owner/Client, Edminster Hinshaw, Russ & Associates, Inc. ("EHRA") will furnish or obtain from others, Additional Services not included in the Basic Services. Any Additional Services not contemplated under this Agreement can only be provided by written authorization from the Owner/Client and will be in accordance with the attached Hourly Rate and Reimbursement Schedule or negotiated to a lump-sum fee. Any work not specified above that may arise will be covered under the Additional Services section and as such, EHRA will not proceed with any Additional Services without written authorization by Owner/Client.

Additional Services required by Owner/Client, which may arise and are not outlined in the Basic Services include revisions to drawings due to design changes associated with alteration to Owner/Client-approved general plan after the design work has commenced, design of non-standard structures, preparation of easements by separate instrument, and survey staking other than listed above, etc. All Additional Services for assignments related to design and preparation of construction plans will include topographic surveying, construction plan preparation, governmental agency approvals, bidding cycle services, construction control staking, construction phase services, and post-construction topographic survey, as may be required.

FAILURE TO MAKE PAYMENT: If Owner/Client fails to make any payment due EHRA for services and expenses within thirty (30) days after receipt of EHRA's statement thereof, the amounts due EHRA will be increased at the rate of 1% per month from said thirtieth (30th) day, and in addition, EHRA may, after giving fourteen (14) days written notice to Owner/Client, suspend services under this Agreement until EHRA has been paid in full all amounts due for services, expenses and charges.

TERMINATION OF AGREEMENT: This Agreement may be terminated by EHRA or Owner/Client by providing fourteen (14) days written notice to the other party. In the event of such termination, EHRA will prepare an invoice for all work performed, on the task underway, up to the date of termination. The total of this work will be deducted from the advance payment (if any) and any balance remaining will be reimbursed back to Owner/Client.

OWNERSHIP OF DOCUMENTS: Drawings, images, fonts and specifications as instruments of service are, and will remain, the property of EHRA, whether the project for which they are made is executed, or not. EHRA is not to reuse these drawings, or any part thereof, for any other client EHRA may have, without the written approval of Owner/Client contingent upon EHRA having been paid in full. These drawings, images and fonts are not to be used by Owner/Client on other projects, or extensions to this project, except by agreement in writing and with appropriate compensation to EHRA.

Owner/Client certifies they have proper license or ownership of data, fonts or images given to EHRA for incorporation into work product.

EHRA will provide Owner/Client with a copy of its engineering/surveying calculations upon which its designs are based. All correspondence, documents and drawings initiated from EHRA's office will be copied to Owner/Client's office as an original document.

EHRA will provide to the Owner/Client the results of the work product in a paper ("hard copy") form. An AutoCAD drawing file ("soft copy") of the work product may be provided to the Owner/Client, if requested. Use of soft copy information is governed by the attached "Electronic File Transfer Agreement." All original documents, drawings, notes, or procedures, in whatever form, produced as a result of this professional service will remain the property of EHRA and may be used by EHRA without the consent of the Owner/Client.

SUCCESSORS AND ASSIGNS: Owner/Client and EHRA each binds itself, its successors, assigns and legal representatives to the other party of this Agreement and to the successors, assigns and legal representatives of such other party with respect to all provisions of this Agreement. Neither Owner/Client nor EHRA will assign, set over or transfer its interest, in whole or in part, in this Agreement without the prior written consent of the other, and any act in derogation hereof, will, at the option of the non-assigning party, render the within Agreement terminated. Minor changes in EHRA's corporation will not operate to cancel this Agreement.

INSURANCE PROVISION: EHRA will carry professional liability insurance in the minimum amount of One Million (\$1,000,000) dollars per claim and Two Million (\$2,000,000) dollars aggregate limits to indemnify itself from damage resulting from errors and omissions from surveying, drawings, or specifications, which insurance will inure to the benefit of Owner/Client.

DISPUTE RESOLUTION: If a dispute arises out of or related to this Agreement or the breach thereof, the parties will attempt to settle the matter between themselves. If no agreement can be reached, the laws of Texas (other than the choice of law provisions thereof) should govern the validity of this Agreement, the construction of its terms, and the interpretation of the rights and duties of the parties. The parties hereto each hereby agree that all obligations performable under this Agreement and/or the Ancillary Documents shall be performed in Harris County, Texas, and each party hereto irrevocably attorns to the venue of the courts in Harris County, Texas.

CONDITIONS (SURVEYING): EHRA will begin the Survey upon receipt of this signed Agreement and proceed diligently to complete the Survey as soon as possible. Weather and other site conditions may affect our schedule and we will attempt to notify you promptly of delays which may affect our anticipated schedule. If the Client has a particular closing schedule or contract deadline, the Surveyor must be informed of this prior to the start of work.

LANDSCAPE ARCHITECT STATEMENT OF JURISDICTION: The Texas Board of Architectural Examiners has jurisdiction over complaints regarding the professional practices of persons registered as Landscape Architects in Texas. Mailing Address: P.O. Box 12337, Austin, TX 78711; Phone: (512) 305-9000; or e-mail: customerservice@tbae.state.tx.us.

EXTENT OF AGREEMENT: This Agreement represents the entire and integrated agreement between Owner/Client and EHRA and supersedes all prior negotiations, representatives or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner/Client and EHRA. Any modifications to this original Agreement must be agreed to by Owner/Client and EHRA and initialed and dated by both the Owner/Client and EHRA in order for the modification to be in full force and effect.

GOVERNING LAW: This Agreement will be governed by the laws of the State of Texas.

EXHIBIT "B"
LABOR-HOUR ESTIMATE AND COST BREAKDOWN
TRAFFIC Signal Design SERVICES
West Airport Boulevard at SH 6

TRAFFIC ENGINEERING SERVICES

Traffic Signal Design West Airport Boulevard at SH 6

TASK DESCRIPTION	NUMBER OF SHEETS	SR. PROJ.	PROJ.	PROJECT	EIT	DESIGN	PROJECT	TOTAL LABOR- HRS	COST
		MANAGER Engineer VII	MANAGER Engineer VI	ENGINEER Engineer IV	ENGINEER Engineer III	CAD TECH.	ADMIN./ CLERICAL		
		\$230.00	\$210.00	\$170.00	\$150.00	\$130.00	\$85.00		
TRAFFIC SIGNAL DESIGN (W Airport at SH 6)									
PROJECT ADMINISTRATION/QAQC	N/A	2	3	0	0	0	10	15	\$1,940.00
FIELD VISITS/SITE INVENTORY	N/A	0	2	3	0	0	0	5	\$930.00
COORDINATION WITH SIRRUS ENGINEERS/COUNTY	N/A	2	8	4	0	0	0	14	\$2,820.00
UTILITY CONFIRMATION/COORDINATION FOR SERVICE OUTLET	N/A	0	1	4	0	0	0	5	\$890.00
50% FIELD MEETING	N/A	0	3	3	0	0	0	6	\$1,140.00
BASIS OF ESTIMATES	1	0	1	5	8	0	0	14	\$2,260.00
TRAFFIC SIGNAL NOTES	1	0	1	0	2	4	0	7	\$1,030.00
EXISTING CONDITION LAYOUT	1	0	1	1	4	8	0	14	\$2,020.00
PROPOSED SIGNAL LAYOUT (INCLUDING ELECTRICAL WIRING)	3	2	4	16	32	40	0	94	\$14,020.00
PROPOSED SIGNAL ELEVATION LAYOUT	1	0	1	2	4	8	0	15	\$2,190.00
STANDARD DETAIL DRAWINGS	17	0	1	0	2	4	0	7	\$1,030.00
DESIGN SUB TOTAL									\$30,270.00
CONSTRUCTION SERVICES	N/A	0	4	0	0	8	0	12	\$1,880.00
SHEETS & HOURS SUBTOTAL	24	6	30	38	52	72	10	196	
TOTAL COST									\$32,150.00



Amani Engineering, Inc.

• Engineers • Surveyors • Construction Managers

November 16, 2021

Mr. Sujeeth Draksharam, P.E.
Sirrus Engineering, Inc.
3100 Timmons Ln. Suite 500
Houston, Texas 77027

Re: Fee Proposal for Surveying Services
Fort Bend County Mobility Project No. 20402
West Airport Boulevard Improvements at State Hwy. 6 South, Fort Bend County, Texas-
Revision 3

Dear Mr. Draksharam:

Amani Engineering, Inc. is pleased to submit this revised fee proposal for surveying services in support of the above referenced project. We propose the following scope of work, deliverables, schedule, fee and exclusions for our services.

I. SCOPE OF WORK – ROADWAY SURVEY

DESIGN CRITERIA

Field survey work will be performed in accordance with the applicable survey requirements contained in the *Fort Bend County Engineering Design Manual, August 2020 Edition*.

CONTROL SURVEY

Temporary benchmarks and baseline control (developed in coordination with Sirrus) will be established at 1,000-foot maximum spacing between points. City of Sugarland Geodetic Control SGR-RM019 will be re-observed with GPS instrument as needed. Horizontal Datum will be NAD83 (2001ADJ) Texas Southcentral Zone (4204). Vertical Datum will be NAVD 88 (2001 ADJ) GEIOD 99. Scale factor will be determined from OPUS solution of SGR-RM019.

UTILITY COORDINATION

Amani will coordinate with all private utility and pipeline company facilities via established utility coordination processes. Where marked and located in the field by surface identification and to the greatest extent possible, Amani will survey and incorporate into the topographic survey base map, all known utility locations. This work will include identifying public utilities such as waterlines, sewer lines and drainage facilities.

RIGHT-OF-ENTRY COORDINATION

Amani will be responsible for obtaining right-of-entry for topographic survey work.

TOPOGRAPHIC SURVEY

The topographic survey shall be along the existing alignment of State Highway (SH) 6 South and W. Airport Boulevard as depicted in the enclosed Exhibit A provided by Sirrus. The topography survey will include all features within the existing right-of-way and extend 25 feet beyond the right-of-way. Due to the existing traffic volume anticipate on SH 6 South along with the nature of this project, Amani's topographic survey along SH 6 will be limited to the area from outside lane line on the east and west sides of the Highway, to 25 feet beyond right-of-way. Lane configurations on SH 6 will be shown based on record drawings and other tools available to

Amani. If additional right-of-way is proposed, right-of-way limits shall be provided by Sirrus prior to performing topographic surveys. Pavement material types will be indicated as determined on the surface. Intersecting driveways and streets will be surveyed back 50 feet from the existing right-of-way line within the survey limits as depicted in the enclosed EXHIBIT A. The topographic survey will include elevation cross sections of West Airport Boulevard surveyed generally at 100-foot intervals along the length of the roadway. Category 1B, Condition II existing right-of way will be prepared based on monumentation found during the topographic survey along with abstracting information. The existing condition 2-D planimetric topographic survey base map will be provided in AutoCAD Civil3D format with text, line types, and feature blocks scaled to be plotted at 1" = 20' when plotted on a full size 22" x 34" sheet.

ABSTRACTING

Amani will obtain and review fourteen (14) abstract reports as required to document ownership of adjacent parcel ownership. This information will be used as required for right-of-way determination and parcel acquisition.

DIGITAL TERRAIN MODEL (DTM) / TRIANGULAR IRREGULAR NETWORK (TIN)

A three dimensional surface model or DTM will be created from a TIN which will be based on conventionally collected three dimensional survey point data including cross sections and other relevant surface elevation points. The TIN and DTM will be provided in Micro Station.

GEOTECHNICAL BOREHOLE SURVEY

Using information provided by Sirrus, Amani will survey locations of geotechnical boreholes and provide coordinates, elevations, and station and offsets.

SURVEY CONTROL MAP

A survey control map will be provided on a full size 22" x 34" sheet.

Swing Tie Diagrams will be provided to provide details of the survey control points.

ROW PARCEL TAKINGS

Prepare four (4), Category 1A, Condition II parcel taking exhibits and associated metes and bounds descriptions certified by a Texas RPLS.

II. OPTIONAL SERVICES

ROADWAY SURVEY & TRAFFIC CONTROL ON SH 6

- Coordinate traffic control along TxDOT right-of-way and provide flagmen as required to obtain additional surface elevations of roadway along State Hwy. 6 South. This is considered an additional work item if elevations of asphalt pavement along and across the main lanes of State Hwy. 6 are required.

CONSTRUCTION STAKING

- Recover and verify existing survey controls. Coordination with construction contractor be provided by client

Sirrus Engineering, Inc.

Fee Proposal for Surveying Services – 20402 West Airport Boulevard –Revision 3

Fort Bend County 2020 Mobility Projects, Fort Bend County, Texas

November 16, 2021

Page 3 of 3

III. DELIVERABLES

- Topographic base file, DTM and TIN in MicroStation format.
- Copies of abstract reports.
- Category 1B, Condition II existing right-of-way exhibit in PDF format.
- Survey control map.
- Parcel acquisition exhibits with associated metes and bounds descriptions and overall parcel map
- KMZ file showing existing, proposed right-of-way and ownership information
- ROW Taking Area Digital Submittal for GIS in ACAD format
- Copy of ASCII point file

IV. SCHEDULE

- Eight (8) weeks from the date of your written authorization, for 90% submittal of the topographic survey weather permitting.
- Eight (8) weeks from the date of your written authorization and obtaining abstract reports, for 90% submittal of the existing right-of way map weather permitting.
- Eight (8) weeks from the date of your written authorization and obtaining abstract reports, for 90% submittal of the parcel taking exhibits weather permitting.

V. EXCLUSIONS

- Base profile drawing
- Staking of roadway construction including pavements, traffic signals sidewalks, etc.
- Subsurface utility engineering and locating
- Utility Coordination for permitting and approvals

VI. FEE

- The estimated fee for the above-mentioned Scope of Work, including roadway design survey, survey control map, abstracting, parcel acquisition package and DTM/TIN model is \$38,461.00.
- Optional services:
 - 1) Roadway Survey and Traffic Control on SH6 - \$4,485.00
 - 2) Construction Phase Surveying services - \$3,000.00

We appreciate this opportunity to propose on this project and look forward to working with you to successful completion. Please contact Christina Weaver, RPLS at 713-270-5700 ext. 116 if you have any questions or need additional information concerning this proposal.

Yours sincerely,

For Amani Engineering, Inc.



Mahesh Dutta, P.E., CFM

Executive Vice President

TBPE Firm Reg. No. F-4528
TBPLS Firm Reg. No. 100282-0

HPK: md: mm

Encl.: EXHIBIT A – Limits of Survey, B. LOE

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EXHIBIT B - LEVEL OF EFFORT FEE ESTIMATE

PROJECT West Airport Blvd.-Revision 3

FORT BEND COUNTY 2020 MOBILITY PROJECTS

CLIENT: Sirrus

DATE: 11.16.2021

ITEM NO	TASK DESCRIPTION	PROJECT MANAGER	RPLS TASK LEADER	SENIOR SURVEY TECHNICIAN	SURVEY TECHNICIAN	2-PERSON SURVEY CREW	3-PERSON SURVEY CREW	ADMIN/ CLERICAL	TOTAL HRS.	COST PER TASK
	CONTRACT RATE PER HOUR	\$165.00	\$170.00	\$110.00	\$95.00	\$155.00	\$170.00	\$90.00		
ROADWAY SURVEY										
	Perform topographic survey as detailed in the scope of work. See Exhibit A for the project limits (Assume		1		2		48		51	\$8,520.00
	Control survey including establishing and/or setting horizontal & vertical controls			2		4			6	\$840.00
	Prepare Topographic Survey Drawing sheets				16				16	\$1,520.00
	Prepare Survey control map with control point detail sheets		2		8				10	\$1,100.00
	Prepare Digital Terrain Model (DTM)/Triangular Irregular Network (TIN)		1		6				7	\$740.00
	Project Management, site walk, and QA/QC		2	1				1	4	\$540.00
	HOURS SUB-TOTALS	0	6	3	32	4	48	1	94	
	PERCENT OF TOTAL HOURS	0.00%	6.38%	3.19%	34.04%	4.26%	51.06%	1.06%	100.00%	
	SUBTOTAL	\$0.00	\$1,020.00	\$330.00	\$3,040.00	\$620.00	\$8,160.00	\$90.00	\$13,260.00	\$13,260.00
Right-of-Entry Coordination										
	Review Ownership information, research contact information				4					\$380.00
	Mail Letters & track responses							2		\$180.00
	SUBTOTAL ROE									\$560.00
ABSTRACTING AND Category 1B, Condition II existing ROW										
	Abstract Reports (Lump Sum assume 2 Parcels > 10 ac @ \$1,000 ea ,assume 12 parcels < 10 ac. \$500									\$8,000.00
	Field verify property corners					8				\$1,240.00
	Review abstract reports and record documents		2	16						\$2,100.00
	Prepare existing ROW exhibit		2	4	4					\$1,160.00
	SUBTOTAL ROW ACQUISITION SURVEY									\$12,500.00
Parcel Takings										
	Field verify taking area					8				\$1,240.00
	Overall Parcel map		1	2	8					\$1,150.00
	Prepare 4 parcel exhibits		8	2	16					\$3,100.00
	Prepare metes and bounds exhibits		8	2	16					\$3,100.00
	KMZ file showing existing and proposed right of way				1					\$95.00
	ROW Taking Area Digital Submittal for GIS		1		4					\$550.00
	Setting Corners for Parcel Takings				4	8				\$1,620.00
	SUBTOTAL PARCEL TAKINGS									\$10,855.00
DIRECT EXPENSES										
	Mileage	100	mile	0.56						56.00
	Tolls (Estimated)									0.00
	Overnight mail - oversized box		each	30.00						0.00
	Photocopies B/W (8.5" X 11")	100	each	0.10						10.00
	Photocopies B/W (11" X 17")	100	each	0.20						20.00
	GPS RTK	48	hour	25.00						1,200.00
	SUBTOTAL DIRECT EXPENSES									\$1,286.00
	TOTAL FEE									\$38,461.00
ITEM NO	TASK DESCRIPTION	PROJECT MANAGER	RPLS TASK LEADER	SENIOR SURVEY TECHNICIAN	SURVEY TECHNICIAN	2-PERSON SURVEY CREW	3-PERSON SURVEY CREW	ADMIN/ CLERICAL	TOTAL HRS.	COST PER TASK
	CONTRACT RATE PER HOUR	\$165.00	\$170.00	\$110.00	\$95.00	\$155.00	\$170.00	\$90.00		
OPTIONAL - ROADWAY SURVEY & TRAFFIC CONTROL / CONSTRUCTION STAKING										
	Topographic survey of main lanes of Highway 6 within limits			2			8			\$1,580.00
	Coordination of Traffic Control	1			4			4		\$905.00
	Flagman (Lump sum \$2000/day assume 1 day)									\$2,000.00
	Construction Staking - Recover and verify existing survey controls(\$1,500 per day assume 2 days)									\$3,000.00
	SUBTOTAL PARCEL TAKINGS									\$7,485.00

