

Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of the 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 under the Agreement, as amended, shall not under any conditions, circumstances, or interpretations thereof exceed \$1,310,964.00.

3. **Recitals.** The recitals set forth above are incorporated herein by reference and made a part of the Agreement.
4. **Human Trafficking.** BY ACCEPTANCE OF THIS AGREEMENT, ENGINEER ACKNOWLEDGES THAT FORT BEND 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.
5. **Modifications and Conflict.** Except as modified herein, the Agreement shall remain in full force and effect and has not been otherwise modified or amended. If there is a conflict among documents that make up the Agreement, this First Amendment shall prevail with regard to the conflict.
6. **Certification.** By his or her signature below, each signatory individual certifies that he or she is the properly authorized person or officer of the applicable Party hereto and has the requisite authority necessary to execute this Agreement on behalf of such Party, and each Party hereby certifies to the other that it has obtained the appropriate approvals or authorizations from its governing body as required by law.

{Execution Page Follows}

FORT BEND COUNTY, TEXAS

R.G. MILLER ENGINEERS, INC.

KP George, County Judge



Authorized Agent – Signature

Date

Mark A. Gehringer, PE

Authorized Agent- Printed Name

ATTEST:

President


Title

Laura Richard, County Clerk

09/08/2025

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 the Fort Bend County under this Agreement.

Robert E. Sturdivant, County Auditor

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EXHIBIT A-1

(Follows Behind)

June 6, 2025

Zach Jacobson, P.E. ENV SP
Project Manager
Binkley & Barfield | DCCM
1710 Seamist Drive
Houston, Texas 77008

Ref: Rogers Road Segment 1 – Project Rescoped
Project No.: 23113
Study, Design, and Construction Phase Services

Dear Mr. Jacobson:

R. G. Miller Engineering (RGM) is respectfully submitting this proposal for amendments to the previous proposal for the above-referenced project, dated August 26th, 2024.

Rogers Road Segment 1 was originally scoped as a two-lane concrete roadway with roadside ditches within 80-foot Right-of-Way (ROW). Fort Bend County Precinct 1 has requested to revise the scope of Rogers Road Segment 1 to a four-lane curb-and-gutter boulevard with a median and underground drainage system, within a 100-foot ROW. In addition to the revised roadway cross-section, RGM was also requested by Fort Bend County to design the intersection of Rogers Road and Pool Hill Road.

Fees for the additional efforts associated with the Study, Design, and Construction Phase Services for the revised scope are provided in Attachment A – Detailed Level of Effort.

The table below summarizes the proposed fees.

Attachment A - Detailed Level of Effort

**LEVEL OF EFFORT (LOE) FEE ESTIMATE FOR
STUDY, DESIGN & CONSTRUCTION PHASE SERVICES**

PROJECT TITLE: Rogers Road Segment 1

Revision No. : 1							June 6, 2025	
Summary				Contract Amount	Authorized Amount	Additional Fee Requested	New Contract Amount	
Basic Services				\$ 599,125.00	\$ 599,125.00	\$ 386,788.00	\$ 985,913.00	
Optional Additional Services				\$ 243,664.00	\$ 243,664.00	\$ 81,387.00	\$ 325,051.00	
TOTAL				\$ 842,789.00	\$ 842,789.00	\$ 468,175.00	\$ 1,310,964.00	
BASIC SERVICES								
Task	Subtask	Description	Fee Type	Contract Amount	Authorized Amount	Requested Fee	New Contract Amount	
100		Study Phase	LS	\$ 98,860.00	\$ 98,860.00	\$ 62,070.00	\$ 160,930.00	
101		Drainage Analysis	LS	\$ 85,531.00	\$ 85,531.00	\$ 73,463.00	\$ 158,994.00	
200		Design Phase	LS	\$ 155,745.00	\$ 155,745.00	\$ 106,340.00	\$ 262,085.00	
201		Bridge Design						
	001	Design Services	LS	\$ 102,690.00	\$ 102,690.00	\$ 70,270.00	\$ 172,960.00	
202		Survey Services						
	001	Survey Control	LS	\$ 10,670.00	\$ 10,670.00	\$ 3,580.00	\$ 14,250.00	
	002	Existing Right of Way Mapping	LS	\$ 17,600.00	\$ 17,600.00	\$ 5,480.00	\$ 23,080.00	
	003	Topographic Surveying (Roadway)	LS	\$ 29,665.00	\$ 29,665.00	\$ 9,740.00	\$ 39,405.00	
	004	Project Control for Construction	LS	\$ 3,805.00	\$ 3,805.00	\$ -	\$ 3,805.00	
	005	Soil Boring Location	LS	\$ 2,530.00	\$ 2,530.00	\$ -	\$ 2,530.00	
203		Geotechnical Services						
	001	Geotechnical Investigations (Roadway)	LS	\$ 35,872.00	\$ 35,872.00	\$ 7,064.00	\$ 42,936.00	
	002	Geotechnical Investigations (Bridge)	LS	\$ 56,157.00	\$ 56,157.00	\$ 34,075.00	\$ 90,232.00	
204		Traffic Services						
	001	Data Collection	LS	\$ -	\$ -	\$ 750.00	\$ 750.00	
	002	Traffic Signal Warrant Analysis	LS	\$ -	\$ -	\$ 13,956.00	\$ 13,956.00	
ADDITIONAL BASIC SERVICES TOTAL				\$ 599,125.00	\$ 599,125.00	\$ 386,788.00	\$ 985,913.00	
OPTIONAL ADDITIONAL SERVICES								
Task	Subtask	Description	Fee Type	Contract Amount	Authorized Amount	Requested Fee	New Contract Amount	
300		Construction Phase	HR	\$ 42,235.00	\$ 42,235.00	\$ 12,680.00	\$ 54,915.00	
400		Optional Additional Services						
	001	Parcel Surveys (24 parcels @ \$2,500/Parcel)	EA	\$ 60,000.00	\$ 60,000.00	\$ -	\$ 60,000.00	
	002	Detention Pond Survey	LS	\$ 9,935.00	\$ 9,935.00	\$ -	\$ 9,935.00	
	003	Level A SUE	LS	\$ 13,930.00	\$ 13,930.00	\$ -	\$ 13,930.00	
	004	Geotechnical Investigations (Detention Basin(s))	LS	\$ 58,764.00	\$ 58,764.00	\$ -	\$ 58,764.00	
	005	Site Clearing for Geotechnical Investigations	LS	\$ 861.00	\$ 861.00	\$ -	\$ 861.00	
	006	Bridge Phasing Design	LS	\$ 16,520.00	\$ 16,520.00	\$ -	\$ 16,520.00	
	007	Bridge Construction Phase Services	HR	\$ 17,480.00	\$ 17,480.00	\$ -	\$ 17,480.00	
	008	Brookshire Creek LOMR	LS	\$ 23,939.00	\$ 23,939.00	\$ -	\$ 23,939.00	
	009	Traffic Signal Design	LS	\$ -	\$ -	\$ 34,108.00	\$ 34,108.00	
	010	Traffic Signal Construction Phase Services	LS	\$ -	\$ -	\$ 6,504.00	\$ 6,504.00	
	011	Quantify Detention Option C	LS	\$ -	\$ -	\$ 5,250.00	\$ 5,250.00	
	012	Detention Pond Design	LS	\$ -	\$ -	\$ 22,845.00	\$ 22,845.00	
ADDITIONAL OPTIONAL ADDITIONAL SERVICES TOTAL				\$ 243,664.00	\$ 243,664.00	\$ 81,387.00	\$ 325,051.00	

Please find the following attached:

- Exhibit A – General Scope of Services
- Exhibit B – Project Schedule
- Attachment A – Detailed Level of Effort
- Attachment B – Subconsultant Proposals

r. g. miller
engineers

If you have any questions or require further information regarding the above, please do not hesitate to contact me.

Sincerely,

R. G. Miller Engineers, Inc.



Mark Rotz, P.E.
Senior Project Manager, Public Works Department

MR/KI

P 05236/A

[M:\0000002840.0000 Rogers Road Segment 1\Contracts\Proposal\Working Docs\20250507 - Rescoped PER and Design Proposal\Rogers Rd - RFA.docx](#)

EXHIBIT A
SCOPE OF WORK

A. GENERAL DESCRIPTION

It is our understanding that the scope of work includes updating the Preliminary Engineering completed on April 15th, 2024, to reflect revisions requested by Fort Bend County. The scope also includes providing Final Design and Construction Phase Services to develop documents for the reconstruction of Rodgers Road Segment 1. The project corridor is approximately 4,050 linear feet. The proposed roadway consists of a four-lane curb-and-gutter concrete roadway with 32-foot median and underground drainage systems. The project will also include detention basin(s) to provide no impact to Brookshire Creek and provide mitigation for the proposed improvements. The design process will be a collaborative effort between the Design Consultant (RGM), the Program Manager (BBI), and the County Staff (FBC).

B. GENERAL REQUIREMENTS

1. Design Criteria
 - a. The Engineer shall prepare all work in accordance with the latest version of Fort Bend County (FBC) Engineering Design Manual and applicable FBC design standards, details, and specifications and in accordance with the latest requirements of the City or MUD.
 - b. Produce roadway plans including typical sections, specifications, and estimates (PS&E) and prepare construction bid documents.
 - c. Submit 30% plans during the preliminary design phase, as well as 70%, and 95% PS&E packages for review by the Program Manager and FBC Engineering. The final 100% set will incorporate any revisions from FBC comments on the 95% set.
 - d. Provide project planning and control to include quality management.
 - e. Provide an accurate, complete and constructible set of contract documents.
 - f. FBC will have the ultimate authority for determining what constitutes an accurate, complete and constructible set of contract documents.

C. PROJECT MANAGEMENT

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

- c. Coordination with adjacent projects (Rogers Road Segment 2, and Pool Hill Road Segments 1 &2). Requesting for relevant documents and data, such as geotechnical, hydraulic and hydrology studies, and topographic survey data, to support the design of Rogers Road Segment 1.
2. Invoicing & Progress Reports
 - a. Prepare and submit monthly progress reports and invoices to BBI for review and approval. The invoices will include the progress report and invoice. The progress report will list outstanding issues that need resolution, and progress of the tasks and estimated completion dates for the work.
3. Project Scheduling
 - a. Prepare an overall project design schedule detailing the progression of the work. This schedule will include review dates by BBI, FBC, and other necessary entities, 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 BBI and FBC.
4. Progress Meetings
 - a. Attend coordination and interim progress review meetings Bi-weekly or as necessary, to be scheduled on an as-needed basis. Prepare and distribute meeting minutes within five working days after the meeting.

D. PRELIMINARY DESIGN

The primary goals are to (1) establish a typical cross section and cross sections in non-standard areas, (2) determine drainage system needs (drainage report and/or preliminary roadway drainage design), (3) positively determine right-of-way (ROW) acquisition needs, (4) determine potential conflicts with existing facilities, (5) identify critical path items, (6) identify problem areas and potential resolution(s), (7) determine permit and regulatory requirements, (8) prepare a reasonable construction cost estimate, and (9) prepare a 30 percent plan set consisting of all existing features show in plan and profile, and proposed improvements in plan only with minor annotation.

1. Collect Existing Data
 - a. Gather and review as-built drawings for Rogers Road and adjacent areas and roadways, if available.
 - b. Collect and review as-built drawings for channels, ditches, drainage systems, detention basins, and other related systems in the project area.

- c. Collect and review property boundaries, jurisdictional boundaries, and ROW boundary information.
2. Structural (See attached scope from IEA)
 - a. Provide twin-bridge layout and detailed design in accordance with the latest version of applicable procedures, specifications, manuals, guidelines, standard drawings, and standard specifications.
3. Geotechnical (See attached scope from Associated Testing Laboratories)
 - a. Perform soil borings along the project area, gather and analysis the field and laboratory geotechnical information and data, and prepare a written report presenting the subsurface conditions found along the project alignments, with geotechnical recommendations for the design and construction of the proposed paving and widening, bridge reconstruction to a twin-bridge at Brookshire Creek, and proposed detention pond(s).
4. Surveying (See attached scope from Weisser Engineering)
 - a. Establish horizontal and vertical survey control for each site shall be referenced to the nearest Fort Bend County Survey Control Monument, or NGS if no County Monuments are established.
 - b. Survey Control Points will be established at 1,000-foot maximum intervals and tied to the calculated alignment for each site.
 - c. Deliver signed and sealed survey control maps per FBC standards with detail sketches in PDF format and CAD files.
 - d. Perform abstract survey; obtain deeds or record, and plats for the right-of-way, streets intersecting and tracts of land adjoining the project limits.
 - e. Establish the existing right-of-way and boundary lines adjoining the project limits.
 - f. Deliver signed and sealed existing Right-of-Way sheets in PDF format per FBC standards and CAD files.
 - g. Obtain cross sections at 100-foot intervals with grade breaks. The cross sections shall extend 20 feet past the proposed right-of-way on existing roads and cover a 100-foot swath in areas with no existing roadway.
 - h. The existing bridge will be detailed and cross section on the creek will be obtained, at a minimum of, at each face of bridge, at each right-of-way line, and at 100 feet upstream and downstream.
 - i. Coordinate with the pipeline companies, MUDs, HOAs, the County, and private utility agencies to obtain locations of available existing utilities and depths of existing pipelines.
 - j. Prepare existing Signed and Sealed topographic survey map of the project to be delivered in PDF per FBC standards and CAD files.

- k. Upon authorization, recover or reestablish project control referenced to the project baseline for construction.
- l. Prepare metes and bounds descriptions and parcel plats in accordance with FBC guidelines for property acquisition and add parcels to the existing right-of-way maps.
- m. Provide boundary and topographic survey of the detention pond(s).

5. Utility Coordination

- a. Utilities will be researched and located in the field to determine the existence and location of underground utilities (pipelines, duct banks, etc.). RGME shall identify and coordinate with all utility owners for relocations required.
- b. Perform records research and field visits to determine the presence of underground or overhead private or public utilities. Collect as-built plans and/or maps from all utilities having facilities within the project limits.
- c. Send records requests to utility companies and obtain I.D. numbers (CenterPoint and AT&T)
- d. Coordinate with FBC and adjacent MUDs during the identification of utility conflicts.
- e. Depict utilities to a reasonable degree of accuracy on the plan and profile drawings.
- f. Prepare a conflict table during the Preliminary Design phase to highlight conflicts between existing utilities and proposed improvements, to be updated during the Final Design phase as required.
- g. Develop designs to avoid and/or minimize conflicts with existing and proposed utilities.
- h. Send roadway design plans to all utility companies. Coordinate relocations or adjustments with utility companies.

6. Drainage Analysis Tasks

- a. Revise Existing Conditions (Due to increased ROW extents)
 - i. Revise existing onsite and off-site contributing drainage areas based on revised ROW extents. Existing conditions drainage areas must match ROW extents for adequate quantification of project impacts to drainage patterns and runoff. Update hydrologic parameters for these areas based on FBCDD criteria.
- b. Update Existing Conditions Hydrologic Model
 - ii. Update the localized existing conditions hydrologic model in HEC-HMS for the project site and contributing off-site drainage areas. Compute pre-project conditions flow rates and runoff hydrographs.
- c. Develop Existing Conditions Roadway Hydraulic Model
 - iii. Develop a localized existing conditions 1-D hydraulic model in XP-SWMM using survey data. The model will be limited to be roadway ROW.
- d. Define Proposed Conditions

- i. Delineate the proposed onsite drainage areas and contributing off-site drainage areas based on the proposed roadway plan. Update hydrologic parameters for the proposed drainage areas. Onsite drainage areas will be subdivided to allow for development of XP-SWMM model at the manhole level, based on required inlet spacing.
 - e. Develop Proposed Conditions Hydrologic Model
 - i. Develop a localized proposed conditions hydrologic model in HEC-HMS for the project site and contributing off-site drainage areas. Compute post-project conditions flow rates and runoff hydrographs.
 - f. Developed Proposed Conditions Roadway Hydraulic Model
 - i. Develop a localized proposed condition 1-D hydraulic model in XP-SWMM using survey data and proposed roadway profile. This model will be limited to the roadway ROW and proposed storm sewer trunk line.
 - g. Determine Detention Requirements
 - i. This task cannot begin until roadway profile elevation, high and low points have been defined.
 - ii. Incorporate the roadway profile high and low points to the XP-SWMM model.
 - iii. Size storm sewer in XP-SWMM to meet Fort Bend County Drainage Design criteria under Section 4.1 and meet ponding requirements.
 - iv. Compare pre-project and post-project hydrographs at the project outfalls to estimate the minimum detention storage volume requirement.
 - h. Quantify Two (2) Detention Options
 - i. Option A: Size a detention pond (surface detention) and outfall to mitigate increased runoff velocity and volume due to roadway improvement.
 - ii. Option B: Increase proposed storm sewer size to provide a combination of surface and in-line detention.
 - i. Optional Additional Detention Option
 - iii. Option C: Assume Fulshear Lakes Development has been approved. Adjust either Option A or B to fulfill any outstanding detention requirements not covered by the Fulshear Lakes drainage report dated April 2025.
 - j. Develop Drainage Plan
 - i. This task cannot begin until roadway profile elevation, high and low points have been defined and provided.
 - ii. Develop schematic level preliminary layout of trunk line.
 - iii. Develop a preliminary pond configuration and discharge structure design for the necessary detention. Generate elevation-storage-discharge data for the facilities.
 - k. Finalize Detention Option

- i. Hold one (1) meeting with RGME Public Works to review up to three (3) detention options with H&H team.
 - ii. Revise the configuration for the selected Option eliminate any adverse impacts on receiving streams.
- I. Update Drainage Report
 - i. Update drainage report with sufficient text, exhibits, and technical appendices to completely illustrate the results of the investigation.
 - ii. The report will include a schematic-level design of the drainage system flowlines and detention pond layout, location and volumetric requirements.
 - iii. Prepare initial submission package for Fort Bend County.
- m. QA/QC
 - i. Perform QA/QC checks after each task inclusive, but not limited to, H&H models, exhibits, calculations, and data collection.
 - ii. Perform QA/QC check of final deliverables.
- n. Project Management
 - i. Attend up to three (3) in-person and/or virtual meetings with coordinating agencies.
 - ii. Develop monthly invoice and project progress report for RG Miller Public Works team.
 - iii. Attend monthly coordination call with Public Works to update on production progress.
- o. Hydraulic Analysis Tasks
 - i. Data Collection

Collect and review available information from FEMA including the effective hydraulic model from FEMA's MSC and any TxDOT work on the adjacent, existing bridge
 - ii. Develop Hydraulic Model (Existing and Proposed)
 - 1) Develop a base (existing conditions) hydraulic model of the study area using the HEC-RAS software package. Use field survey data (by others), LiDAR elevation data, and information obtained during field visits to develop the hydraulic modeling data.
 - 2) Incorporate the proposed bridge dimensions and elevations to create the proposed conditions hydraulic model.
 - 3) Compute proposed conditions hydraulic model for the 10-year, 25-year, 100-year, and 500-year design storms that reflect the presence of the proposed bridge. Check for any increases in computed water surface elevation levels.
 - 4) Add results of the hydraulic analysis to the drainage report.
- p. Brookshire Creek LOMR
 - i. Update Effective H&H Models

Utilize FBCDD current effective HEC-RAS 2D model and HEC-HMS as current FEMA effective data. Update the models based on proposed roadway discharges into Brookshire Creek and Bessies Creek.

- ii. Update FIRM Panels
Updated the affected FIRM(s) panels. Include revised floodplain boundaries and tie-in points. Generate GIS shapefile of tie-in points and proposed floodplain.
- iii. Prepare LOMR Submittal
Including cover letter, exhibits, attachments, and forms.
- iv. QA/QC
 - 5) Perform QA/QC checks after each task inclusive, but not limited to, H&H models, exhibits, calculations, and data collection.
 - 6) Perform QA/QC check of final deliverables.
- v. Project Management
Coordinate the review of the LOMR with FBCDD, Fort Bend County and FEMA.
- vi. Comment Response
Address review comments and resubmit up to two (2) times.

7. Traffic Signal Design Services Scope of Services

Provide the Traffic Warrant Study that will include the following:

- a. Data Collection
 - i. 13-hour (6 am – 7pm) turning movement counts at Rogers Road and Pool Hill Road
 - ii. Development plans within the project vicinity
- b. Traffic Signal Warrant Analysis
 - i. Utilize the traffic data collected.
 - ii. Determine trips generated by any proposed developments within the project vicinity and assess trip distribution on the roadway network.
 - iii. Perform a TSWA per MUTCD criteria based on existing, proposed half-boulevard sections, and proposed full-boulevard sections conditions.
 - iv. Using Synchro, evaluate the intersection capacity analysis for Rogers Road and Pool Hill Road.
 - v. Prepare a traffic warrant study, including exhibits.
 - vi. Submit the draft report to Fort Bend County.
 - vii. Address comments from Fort Bend County.
 - viii. Finalize and submit the signed and sealed report to Fort Bend County

If a traffic signal is warranted per an approved traffic warrant study, the scope of services to be provided for the following for the traffic signal design

- c. Traffic Signal Design

- i. Use the provided topographic survey and ROW along all approaches of the project intersection.
- ii. Collect all data to determine existing conditions.
- iii. Develop a base map of existing conditions.
- iv. Incorporate roadway plans detailing Rogers Road and Pool Hill Road improvements.
- v. Prepare proposed temporary traffic signal sheets for half-boulevard section.
- vi. Prepare proposed traffic signal sheets for full-boulevard sections
- vii. Evaluate and tabulate electrical diagrams.
- viii. Prepare traffic signal elevation diagrams.
- ix. Prepare proposed signing and pavement marking sheet.
- x. Compile all related standard details and specifications.
- xi. Calculate quantities and prepare an engineer's cost estimate.
- xii. Produce bid-ready construction plan sheets.
- xiii. Submit an interim set of construction plans to Fort Bend County.
- xiv. Address comments from Fort Bend County.
- xv. Prepare final construction package for Fort Bend County approval

d. Construction Phase Services

- i. Provide periodic, no more than four, on-site construction observation services.
- ii. Review and respond to contractor's Request for Information and submittals.
- iii. Once construction has been substantially completed, complete a final site observation visit and prepare a punch list as required.

8. Preliminary Engineering Report

- a. Prepare and submit a Preliminary Engineering Report (PER) which will be in accordance with the FBC Engineering Design Manual guidelines. The PER will include the following at a minimum:
 - i. Project location and scope
 - ii. Existing conditions
 - iii. Existing utilities, including potential conflicts
 - iv. Proposed roadway design, highlighting any deviation from applicable design criteria
 - v. Proposed intersection design, utilizing geotechnical reports from Pool Hill Segment 1 and 2 to design transition from proposed intersection to Pool Hill Road pavement.
 - vi. Existing and proposed drainage and detention
 - vii. Proposed Right-of-Way
 - viii. Geotechnical Investigation
 - ix. Environmental Investigation (to be provided from FBC)
 - x. Bridge Layout
 - xi. Traffic and Traffic Signal

- xii. Permit and Regulatory requirements
- xiii. Cost Estimate
- xiv. Appendices
 - 7) PER review meeting minutes
 - 8) Project location map
 - 9) Alignment exhibit showing ultimate configuration
 - 10) FEMA Flood Insurance Rate Maps (FIRM)
 - 11) Preliminary drainage are map and calculations taking into account the ultimate roadway configuration
 - 12) Sight triangle exhibit
 - 13) Right-of-way exhibit
 - 14) Cost Estimate
 - 15) Utilities
 - a) Utility Conflict table
 - b) Correspondence with utility companies
 - 16) 30 percent drawings.
 - a) Typical sections
 - b) Plan and provide sheets consisting of all existing features shown in the plan and profile, as well as proposed improvements in plan only with minor annotation.
 - c) Traffic Control Plan
 - d) Bridge Layout
 - 17) Reports
 - a) Drainage Study
 - b) Geotechnical Report, prepared by ATL
 - c) Pool Hill Road Segment 1 Geotechnical Report
 - d) Pool Hill Road Segment 2 Geotechnical Report
 - e) Environmental Report (to be provided by FBC)

E. FINAL DESIGN

Provide detailed construction plans, specifications, final design calculations and estimates as necessary for the improvements of Rogers Road per the results of the Preliminary Engineering Phase and approved by FBC.

1. Prepare and submit a 70%, 95%, and 100% PS&E submittals for review by BBI and FBC. The submittals will provide the following at a minimum:
 - a. 70% Submittal

- i. A digital copy of the drawings, specifications, and estimate to be submitted to the Program Manager
 - ii. Cover Sheet with a 70 percent interim seal
 - iii. Index of sheets
 - iv. General notes
 - v. Typical and non-standard cross sections
 - vi. Project layout sheet
 - vii. Survey control
 - viii. Right-of-way (existing and proposed)
 - ix. Horizontal alignment data
 - x. Plan and Profile sheets (detailed callouts not required at the 70 percent)
 - xi. Intersection grading calculations
 - xii. Bridge Layout and details
 - xiii. Drainage area map with hydraulic calculations
 - xiv. Inlet Drainage Area Delineation Maps
 - xv. Inlet and Spread Calculations
 - xvi. Traffic control plan
 - xvii. Signing and striping plan
 - xviii. Storm water pollution prevention plan
 - xix. Cross sections (100-foot intervals with earthwork calculations)
 - xx. Specification table of contents
 - xxi. Construction cost estimate
 - xxii. Bid form
 - xxiii. KMZ file of current design with proposed right-of-way
 - xxiv. 70 percent review checklist
- b. 95% Submittal
- i. A digital copy of the drawings, specifications, and estimate to be submitted to the Program Manager
 - ii. Cover sheet with a 95 percent interim seal and include all of the 70 percent requirements plus the following:
 - iii. Verify earthwork quantities with cross sections at 100-foot intervals
 - iv. Standard construction details
 - v. Project manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
 - vi. KMZ file of current design and proposed right-of-way
 - vii. Responses to the 70 percent comments
 - viii. 95 percent review checklist

- c. 100% Submittal
 - i. A digital copy of the drawings, specifications, and estimate to be submitted to the Program Manager.
 - ii. Plans signed and seal by a professional engineer and include all of the 95% requirements plus the following:
 - iii. Project manual
 - iv. Construction cost estimate
 - v. KMZ file of current design with proposed right-of-way
 - vi. Responses to 95 percent comments
 - vii. Recommended maximum number of calendar days for construction
 - viii. 100 percent review checklist

2. Quality Control

- a. All documents are to be internally reviewed in accordance with the documented Quality Assurance/Quality Control (QA/QC) process prior to submittal to the Program Manager. FBC reserves the right to audit the QA/QC documents to ensure the process has been followed at each submittal stage.

3. Design Completion

- a. All items will be submitted to the Program Manager. Final design efforts will be considered complete when FBC has approved the documents as evidence by the FBC Engineer's signature on the cover sheet.

F. BID PHASE

Upon completion of final design services, Fort Bend County will determine an advertisement and bid opening schedule. All administrative project manual documents (cover page, Notice to Bidders, etc.) will be prepared by Fort Bend County Purchasing Department and provided to the Program Manager and Design Consultant in PDF format.

- 1. Prepare project manual file in PDF format consisting of:
 - a. The bid form
 - b. A sealed and signed specification table of contents
 - c. Applicable specifications and other design documents
- 2. Prepare the bid form in excel format. Review that the formulas are provided so the spreadsheet will calculate the totals for the vendors.
- 3. Attend a pre-bid meeting at the FBC Purchasing Office.
- 4. Answer questions, as well as any other required changes, to be included in an addendum if necessary.

5. Review the bid tabulation from the Program Manager.

G. CONSTRUCTION PHASE

1. Attend a pre-construction meeting with FBC staff, Program Manager, Construction Manager, general contractor, and construction materials testing contractor. The Program Manager is to inform on how many drawing plan sets and project manuals are required to be provided at the pre-construction meeting.
2. Review contractor submittals and responding to Requests for Information (RFIs)
3. Attend progress meetings and field visits at the request by Fort Bend County.
4. Participate in the substantial completion walkthrough.
5. Prepare record drawings based on contractor as-built markups. The sheets that have deviations from the original plans should have clouds around the changes and should be signed and dated by the Engineer. All sheets should be stamped Record Drawings, including the cover sheet. The cover sheet should be signed, sealed, dated and include the following statement: "This project was constructed in general conformance with the plans, and elevations on these drawings represent what was constructed within engineering tolerances." Provide FBC one set of the record drawings in pdf format on a CD/DVD with each sheet stamped "Record Drawings." The CD/DVD will include electronic files (AutoCAD or Microstation) as well as a KMZ file showing the existing/proposed right-of-way and proposed improvements. The information contained on the CD/DVD will be uploaded to the appropriate folder within Masterworks.

PROJECT NAME: ROGERS RD SEGMENT 1
 CONTRACT NUMBER:
 DATE: 06/06/2025
 STUDY PHASE SERVICE

Description/Task	Department Manager	Sr. Project Manager I	Project Manager	Assistant Project Manager	Engineer-In-Training III	Designer	CADD Operator	Admin Assistant	Subtotal (hrs)	Hours / Sheet	Total Fee
Hourly Billing Rate	\$280.00	\$230.00	\$215.00	\$175.00	\$150.00	\$150.00	\$95.00	\$100.00			
100. STUDY PHASE SERVICES											
100.A Project Management											
i. Alignment/ROW Meeting with FBC (3 Alternatives)	1	1		1					3	N/A	\$685.00
ii. Develop schedule to identify critical path items		2		2					4	N/A	\$810.00
iii. Progress Meeting (Bi-Weekly over 3 Month, 6-30 Mins Meetings)	1	6		6					13	N/A	\$2,710.00
100.A SUBTOTAL Project Management Hours	2	9	0	9	0	0	0	0	20		
100.A SUBTOTAL Project Management Fee	\$560.00	\$2,070.00	\$0.00	\$1,575.00	\$0.00	\$0.00	\$0.00	\$0.00			\$4,205.00
100.B Utility Coordination											
i. Municipal Utility District (MUD 216)	1	2		2					5	N/A	\$1,090.00
ii. Fort Bend County Drainage District (Assume 1 Meeting)	1	1		1	1				4	N/A	\$835.00
iii. Update Utility Conflict Table				1	1				2	N/A	\$325.00
100.B SUBTOTAL Utility Coordination Hours	2	3	0	4	2	0	0	0	11		
100.B SUBTOTAL Utility Coordination Fee	\$560.00	\$690.00	\$0.00	\$700.00	\$300.00	\$0.00	\$0.00	\$0.00			\$2,250.00
100.C Update Preliminary Engineering Report											
i. Evaluation of existing site conditions				1	1				2	N/A	\$325.00
ii. Coordination with subconsultants and review reports (H&H, Geotech, traffic, and Bridge)	1	2		7	7				17	N/A	\$3,015.00
iii. Proposed Alternatives and Analysis	1	1		2	9				13	N/A	\$2,210.00
iv. Findings and Recommendations	1	1		2	9				13	N/A	\$2,210.00
v. Prepare Cost Estimate	1	1		2	9				13	N/A	\$2,210.00
vi. Final Report	1	1		4	9				15	N/A	\$2,560.00
100.C SUBTOTAL Preliminary Engineering Report Hours	5	6	0	18	44	0	0	0	73		
100.C SUBTOTAL Preliminary Engineering Report Fee	\$1,400.00	\$1,380.00	\$0.00	\$3,150.00	\$6,600.00	\$0.00	\$0.00	\$0.00			\$12,530.00
100.D Preliminary Design and Deliverables											
i. Front End Drawings											
a. Typical Sections (update to meet new scope, est. 2 sheets)		1		2	4		4		11	6	\$1,560.00
ii. Design, Plan & Profile											
a. Preliminary Vertical Profile Design	1	4		12	27				44	N/A	\$7,350.00
b. Coordination with Pool Hill Road Segment1 and 2	1	2		4					7	N/A	\$1,440.00
c. Preliminary Roadway Layout Design with Pool Hill Intersection	2	6		12	27				47	N/A	\$8,090.00
d. Drainage and Roadway Plan & Profile (est. 11 sheets)		2		4	9		27		42	4	\$5,075.00
e. Detention Layout (est. 2 sheets)		2		2	4		6		14	7	\$1,980.00
iii. Traffic Control Plan (TCP)											
a. Coordinate with Bridge Engineer Regarding Bridge Construction Phases	1	2		2					5	N/A	\$1,090.00
b. Traffic Control/Detour Assessment	2	4		6	6		4		22	N/A	\$3,810.00
c. Traffic Control Cross Section (est. 4 sheets)		1		2	2		4		9	2	\$1,260.00
iv. Proposed ROW Taking Assessment											
a. Proposed Right-of-Way Exhibit (est. 4 sheets)		1		2	6		12		21	5	\$2,620.00
b. Proposed Roll Plot Layout		1		2	3		4		10	N/A	\$1,410.00
c. Sight Triangle Evaluation Exhibit (est. 4 sheets)		2		5	10		10		27	7	\$3,785.00
v. Internal QAQC of Review of Summary Report and Exhibits	1	3		3	9		6	2	24	N/A	\$3,615.00
100.D SUBTOTAL Preliminary Design and Deliverables Hours	8	31	0	58	107	0	77	2	283		
100.D SUBTOTAL Preliminary Design and Deliverables Fee	\$2,240.00	\$7,130.00	\$0.00	\$10,150.00	\$16,050.00	\$0.00	\$7,315.00	\$200.00			\$43,085.00
TOTAL Study Phase Service Hours	17	49	0	89	153	0	77	2	387		
TOTAL Study Phase Service Fee	\$4,760.00	\$11,270.00	\$0.00	\$15,575.00	\$22,950.00	\$0.00	\$7,315.00	\$200.00			\$62,070.00

PROJECT NAME: ROGERS RD SEGMENT 1

CONTRACT NUMBER:

DATE: 06/06/2025

DRAINAGE ANALYSIS SERVICES

Description/Task	Sr. Project Manager	Project Manager	Senior Hydrologist	Project Engineer	Associate Engineer	GIS Specialist	Admin Assistant	Subtotal (hrs)	Total Fee
Hourly Billing Rate	\$260.00	\$215.00	\$208.00	\$155.00	\$105.00	\$148.00	\$97.00		
101. DRAINAGE ANALYSIS SERVICES									
101.A Drainage Analysis									
i. Revise Existing Conditions (due to increased ROW extents)	2	8			6			16	\$2,870.00
ii. Update Existing Hydrologic Model	2	15			7			24	\$4,480.00
iii. Develop Existing Conditions Roadway Hydraulic Model	4	40			25			69	\$12,265.00
iv. Define Proposed Conditions	2	20			10			32	\$5,870.00
v. Develop Proposed Hydrologic Model	2	10			5			17	\$3,195.00
vi. Develop Proposed Conditions Roadway Hydraulic Model	2	15			30			47	\$6,895.00
vii. Estimate Detention requirement	2	10			10			22	\$3,720.00
viii. Quantify two (2) Detention Options: Option A & B	2	10			18			30	\$4,560.00
ix. Develop Drainage Plan	1	10			25			36	\$5,035.00
x. Finalize Detention Option	2	35			18			55	\$9,935.00
xi. Update Drainage Report	2	2			10		4	18	\$2,388.00
xii. QA/QC	2	8			8			18	\$3,080.00
xiii. Project Coordination	5	10			4			19	\$3,870.00
101.B Hydraulic Analysis									
i. Update FBCDD Bessies Creek Master Drainage Plan Model		10			30			40	\$5,300.00
101. SUBTOTAL Drainage Analysis Hours	30	203	0	0	206	0	4	443	
101. SUBTOTAL Drainage Analysis Fee	\$7,800.00	\$43,645.00	\$0.00	\$0.00	\$21,630.00	\$0.00	\$388.00		\$73,463.00
400. OPTIONAL ADDITIONAL SERVICES									
011 Quantify Detention Option C	3	12			18			33	
400.011 SUBTOTAL Optional Additional Services Hours	3	12	0	0	18	0	0	33	
400.011 SUBTOTAL Optional Additional Services Fee	\$780.00	\$2,580.00	\$0.00	\$0.00	\$1,890.00	\$0.00	\$0.00		\$5,250.00
TOTAL Drainage Analysis Service Hours	33	215	0	0	224	0	4	476	
TOTAL Drainage Analysis Service Fee	\$8,580.00	\$46,225.00	\$0.00	\$0.00	\$23,520.00	\$0.00	\$388.00		\$78,713.00

PROJECT NAME: ROGERS RD SEGMENT 1
 CONTRACT NUMBER:
 DATE: 06/06/2025
 DESIGN PHASE SERVICE

Description/Task	Department Manager	Sr. Project Manager I	Project Manager	Assistant Project Manager	Engineer-In-Training III	Designer	CADD Operator	Admin Assistant	Subtotal (hrs)	Hours / Sheet	Total Fee
Hourly Billing Rate	\$280.00	\$230.00	\$215.00	\$175.00	\$150.00	\$150.00	\$95.00	\$100.00			
200. DESIGN PHASE SERVICES											
200.A Project Management											
i. Project Meetings	1	2		2					5	N/A	\$1,090.00
ii. Internal QA/QC (70% Submittal, 95% Submittal & 100% Submittal)	12	12		12					36	N/A	\$8,220.00
iii. Coordination with Sub-Consultant (Anticipate additional coordination needed for increased scope)	1	4		4					9	N/A	\$1,900.00
iv. Coordination with Pool Hill Segment 1 and 2	1	4		4					9	N/A	\$1,900.00
200.A SUBTOTAL Project Management Hours	15	22	0	22	0	0	0	0	59		
200.A SUBTOTAL Project Management Fee	\$4,200.00	\$5,060.00	\$0.00	\$3,850.00	\$0.00	\$0.00	\$0.00	\$0.00			\$13,110.00
200.B Utility Coordination											
i. Coordinate/Approval with Private Utilities									0	N/A	\$0.00
ii. Coordinate with Adjacent Ongoing Projects									0	N/A	\$0.00
iii. Field Visits									0	N/A	\$0.00
200.B SUBTOTAL Utility Coordination Hours	0	0	0	0	0	0	0	0	0		
200.B SUBTOTAL Utility Coordination Fee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			\$0.00
200.C Design and Deliverables											
i. Front End Drawings											
a. Typical Sections (Update to re-scoped typical sections)		1		2	4		4		11	5.5	\$1,560.00
b. Demolition Plan (Verify demolition needs in additional ROW and reflect on plans)		1		1	4		4		10	2.5	\$1,385.00
c. Inlet Drainage Area Delineation			6		9	45			60	N/A	\$9,705.00
d. Inlet and Spread Calculations	2	6		12	20				40	N/A	\$7,040.00
e. Additional Drainage Area & Overland Sheet Flow Map (est. 1 sheets)				1	1		2		4	2.0	\$515.00
ii. Design, Plan & Profile											
a. Final Vertical Design	2	4		12	30		4		52	N/A	\$8,460.00
b. Final Intersection Design	1	4		6	9				20	N/A	\$3,600.00
c. Transition Design on Pool Hill Road	1	2		6	9				18	N/A	\$3,140.00
d. Intersection Calculations		2		5	12		4		23	4.6	\$3,515.00
e. Proposed Drainage Layout (est. 2 sheets)		1		2	9		9		21	10.5	\$2,785.00
f. Storm Sewer/Drainage Design	2	18		30	40				90	11.3	\$15,950.00
g. Drainage and Roadway Plan and Profile (est. 11 sheets)		4		12	18		80		114	14.3	\$13,320.00
h. Earthwork Cross Sections and Cut/Fill Calculations (est. 5 sheets)		3		9	18		9		39	7.8	\$5,820.00
i. Paving Marking, Striping, and Traffic Sign Plans (est. 6 sheets)				3	12		24		39	7.8	\$4,605.00
j. Traffic Signal Plans		1		1	3		3		8	N/A	\$1,140.00
iii. Storm Water Pollution Prevention Plan											
a. Storm Water Pollution Prevention Plan Sheets (est. 4 sheets)				1	1		2		4	1	\$515.00
iv. Project Manual											
a. Sheet by Sheet Quantity Take-off and Cost Estimate	2	4		12	27				45	N/A	\$7,630.00
200.C SUBTOTAL Design and Deliverables Hours	10	57	0	124	262	0	145	0	598		
200.C SUBTOTAL Design and Deliverables Fee	\$2,800.00	\$13,110.00	\$0.00	\$21,700.00	\$39,300.00	\$0.00	\$13,775.00	\$0.00			\$90,685.00
200.D Bid Phase Services											
i. Answer Contractor Inquiries, Draft and Issue Addendums (Anticipate additional inquiries)	1	3		9					13	N/A	\$2,545.00
200.D SUBTOTAL Bid Phase Services Hours	1	3	0	9	0	0	0	0	13		
200.D SUBTOTAL Bid Phase Services Fee	\$280.00	\$690.00	\$0.00	\$1,575.00	\$0.00	\$0.00	\$0.00	\$0.00			\$2,545.00
400. OPTIONAL ADDITIONAL SERVICES											
012 Detention Pond Design (Potential 2nd Basin due to Increased Impervious Cover)											
a. Basin Design and Layout (estimated 2 sheets)		2		6	12		20		40	20.0	\$5,210.00
b. Cross Sections (estimated 4 sheets)		2		4	6		18		30	7.5	\$3,770.00
c. Weir Plan and Profile Sheet (estimated 4 sheets)		2		4	9		18		33	8.3	\$4,220.00
d. Outfall Plan and Profile Sheet (estimated 4 sheets)		1		4	9		18		32	8.0	\$3,990.00
e. Geometric Layout (estimated 4 sheets)		1		4	6		12		23	5.8	\$2,970.00
f. SWPPP Layout (estimated 2 sheets)		1		4	6		9		20	10.0	\$2,685.00
400.012 SUBTOTAL Optional Additional Services Hours	0	9	0	26	48	0	95	0	178		
400.012 SUBTOTAL Optional Additional Services Fee	\$0.00	\$2,070.00	\$0.00	\$4,550.00	\$7,200.00	\$0.00	\$9,025.00	\$0.00			\$22,845.00
TOTAL Design Phase Services Hours	26	91	0	181	310	0	240	0	848		
TOTAL Design Phase Services Fee	\$7,280.00	\$20,930.00	\$0.00	\$31,675.00	\$46,500.00	\$0.00	\$22,800.00	\$0.00			\$129,185.00

PROJECT NAME: ROGERS RD SEGMENT 1
 CONTRACT NUMBER:
 DATE: 06/06/2025
 STUDY PHASE SERVICE

Description/Task	Department Manager	Sr. Project Manager I	Project Manager	Assistant Project Manager	Engineer-In-Training III	Designer	CADD Operator	Admin Assistant	Subtotal (hrs)	Hours / Sheet	Total Fee
Hourly Billing Rate	\$280.00	\$230.00	\$215.00	\$175.00	\$150.00	\$150.00	\$95.00	\$100.00			
100. STUDY PHASE SERVICES											
100.A Project Management											
i. Alignment/ROW Meeting with FBC (3 Alternatives)	1	1		1					3	N/A	\$685.00
ii. Develop schedule to identify critical path items		2		2					4	N/A	\$810.00
iii. Progress Meeting (Bi-Weekly over 3 Month, 6-30 Mins Meetings)	1	6		6					13	N/A	\$2,710.00
100.A SUBTOTAL Project Management Hours	2	9	0	9	0	0	0	0	20		
100.A SUBTOTAL Project Management Fee	\$560.00	\$2,070.00	\$0.00	\$1,575.00	\$0.00	\$0.00	\$0.00	\$0.00			\$4,205.00
100.B Utility Coordination											
i. Municipal Utility District (MUD 216)	1	2		2					5	N/A	\$1,090.00
ii. Fort Bend County Drainage District (Assume 1 Meeting)	1	1		1	1				4	N/A	\$835.00
iii. Update Utility Conflict Table				1	1				2	N/A	\$325.00
100.B SUBTOTAL Utility Coordination Hours	2	3	0	4	2	0	0	0	11		
100.B SUBTOTAL Utility Coordination Fee	\$560.00	\$690.00	\$0.00	\$700.00	\$300.00	\$0.00	\$0.00	\$0.00			\$2,250.00
100.C Update Preliminary Engineering Report											
i. Evaluation of existing site conditions				1	1				2	N/A	\$325.00
ii. Coordination with subconsultants and review reports (H&H, Geotech, traffic, and Bridge)	1	2		7	7				17	N/A	\$3,015.00
iii. Proposed Alternatives and Analysis	1	1		2	9				13	N/A	\$2,210.00
iv. Findings and Recommendations	1	1		2	9				13	N/A	\$2,210.00
v. Prepare Cost Estimate	1	1		2	9				13	N/A	\$2,210.00
vi. Final Report	1	1		4	9				15	N/A	\$2,560.00
100.C SUBTOTAL Preliminary Engineering Report Hours	5	6	0	18	44	0	0	0	73		
100.C SUBTOTAL Preliminary Engineering Report Fee	\$1,400.00	\$1,380.00	\$0.00	\$3,150.00	\$6,600.00	\$0.00	\$0.00	\$0.00			\$12,530.00
100.D Preliminary Design and Deliverables											
i. Front End Drawings											
a. Typical Sections (update to meet new scope, est. 2 sheets)		1		2	4		4		11	6	\$1,560.00
ii. Design, Plan & Profile											
a. Preliminary Vertical Profile Design	1	4		12	27				44	N/A	\$7,350.00
b. Coordination with Pool Hill Road Segment1 and 2	1	2		4					7	N/A	\$1,440.00
c. Preliminary Roadway Layout Design with Pool Hill Intersection	2	6		12	27				47	N/A	\$8,090.00
d. Drainage and Roadway Plan & Profile (est. 11 sheets)		2		4	9		27		42	4	\$5,075.00
e. Detention Layout (est. 2 sheets)		2		2	4		6		14	7	\$1,980.00
iii. Traffic Control Plan (TCP)											
a. Coordinate with Bridge Engineer Regarding Bridge Construction Phases	1	2		2					5	N/A	\$1,090.00
b. Traffic Control/Detour Assessment	2	4		6	6		4		22	N/A	\$3,810.00
c. Traffic Control Cross Section (est. 4 sheets)		1		2	2		4		9	2	\$1,260.00
iv. Proposed ROW Taking Assessment											
a. Proposed Right-of-Way Exhibit (est. 4 sheets)		1		2	6		12		21	5	\$2,620.00
b. Proposed Roll Plot Layout		1		2	3		4		10	N/A	\$1,410.00
c. Sight Triangle Evaluation Exhibit (est. 4 sheets)		2		5	10		10		27	7	\$3,785.00
v. Internal QAQC of Review of Summary Report and Exhibits	1	3		3	9		6	2	24	N/A	\$3,615.00
100.D SUBTOTAL Preliminary Design and Deliverables Hours	8	31	0	58	107	0	77	2	283		
100.D SUBTOTAL Preliminary Design and Deliverables Fee	\$2,240.00	\$7,130.00	\$0.00	\$10,150.00	\$16,050.00	\$0.00	\$7,315.00	\$200.00			\$43,085.00
TOTAL Study Phase Service Hours	17	49	0	89	153	0	77	2	387		
TOTAL Study Phase Service Fee	\$4,760.00	\$11,270.00	\$0.00	\$15,575.00	\$22,950.00	\$0.00	\$7,315.00	\$200.00			\$62,070.00

PROJECT NAME: ROGERS RD SEGMENT 1

CONTRACT NUMBER:

DATE: 06/06/2025

DRAINAGE ANALYSIS SERVICES

Description/Task	Sr. Project Manager	Project Manager	Senior Hydrologist	Project Engineer	Associate Engineer	GIS Specialist	Admin Assistant	Subtotal (hrs)	Total Fee
Hourly Billing Rate	\$260.00	\$215.00	\$208.00	\$155.00	\$105.00	\$148.00	\$97.00		
101. DRAINAGE ANALYSIS SERVICES									
101.A Drainage Analysis									
i. Revise Existing Conditions (due to increased ROW extents)	2	8			6			16	\$2,870.00
ii. Update Existing Hydrologic Model	2	15			7			24	\$4,480.00
iii. Develop Existing Conditions Roadway Hydraulic Model	4	40			25			69	\$12,265.00
iv. Define Proposed Conditions	2	20			10			32	\$5,870.00
v. Develop Proposed Hydrologic Model	2	10			5			17	\$3,195.00
vi. Develop Proposed Conditions Roadway Hydraulic Model	2	15			30			47	\$6,895.00
vii. Estimate Detention requirement	2	10			10			22	\$3,720.00
viii. Quantify two (2) Detention Options: Option A & B	2	10			18			30	\$4,560.00
ix. Develop Drainage Plan	1	10			25			36	\$5,035.00
x. Finalize Detention Option	2	35			18			55	\$9,935.00
xi. Update Drainage Report	2	2			10		4	18	\$2,388.00
xii. QA/QC	2	8			8			18	\$3,080.00
xiii. Project Coordination	5	10			4			19	\$3,870.00
101.B Hydraulic Analysis									
i. Update FBCDD Bessies Creek Master Drainage Plan Model		10			30			40	\$5,300.00
101. SUBTOTAL Drainage Analysis Hours	30	203	0	0	206	0	4	443	
101. SUBTOTAL Drainage Analysis Fee	\$7,800.00	\$43,645.00	\$0.00	\$0.00	\$21,630.00	\$0.00	\$388.00		\$73,463.00
400. OPTIONAL ADDITIONAL SERVICES									
011 Quantify Detention Option C	3	12			18			33	
400.011 SUBTOTAL Optional Additional Services Hours	3	12	0	0	18	0	0	33	
400.011 SUBTOTAL Optional Additional Services Fee	\$780.00	\$2,580.00	\$0.00	\$0.00	\$1,890.00	\$0.00	\$0.00		\$5,250.00
TOTAL Drainage Analysis Service Hours	33	215	0	0	224	0	4	476	
TOTAL Drainage Analysis Service Fee	\$8,580.00	\$46,225.00	\$0.00	\$0.00	\$23,520.00	\$0.00	\$388.00		\$78,713.00

PROJECT NAME: ROGERS RD SEGMENT 1
 CONTRACT NUMBER:
 DATE: 06/06/2025
 DESIGN PHASE SERVICE

Description/Task	Department Manager	Sr. Project Manager I	Project Manager	Assistant Project Manager	Engineer-In-Training III	Designer	CADD Operator	Admin Assistant	Subtotal (hrs)	Hours / Sheet	Total Fee
Hourly Billing Rate	\$280.00	\$230.00	\$215.00	\$175.00	\$150.00	\$150.00	\$95.00	\$100.00			
200. DESIGN PHASE SERVICES											
200.A Project Management											
i. Project Meetings	1	2		2					5	N/A	\$1,090.00
ii. Internal QA/QC (70% Submittal, 95% Submittal & 100% Submittal)	12	12		12					36	N/A	\$8,220.00
iii. Coordination with Sub-Consultant (Anticipate additional coordination needed for increased scope)	1	4		4					9	N/A	\$1,900.00
iv. Coordination with Pool Hill Segment 1 and 2	1	4		4					9	N/A	\$1,900.00
200.A SUBTOTAL Project Management Hours	15	22	0	22	0	0	0	0	59		
200.A SUBTOTAL Project Management Fee	\$4,200.00	\$5,060.00	\$0.00	\$3,850.00	\$0.00	\$0.00	\$0.00	\$0.00			\$13,110.00
200.B Utility Coordination											
i. Coordinate/Approval with Private Utilities									0	N/A	\$0.00
ii. Coordinate with Adjacent Ongoing Projects									0	N/A	\$0.00
iii. Field Visits									0	N/A	\$0.00
200.B SUBTOTAL Utility Coordination Hours	0	0	0	0	0	0	0	0	0		
200.B SUBTOTAL Utility Coordination Fee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			\$0.00
200.C Design and Deliverables											
i. Front End Drawings											
a. Typical Sections (Update to re-scoped typical sections)		1		2	4		4		11	5.5	\$1,560.00
b. Demolition Plan (Verify demolition needs in additional ROW and reflect on plans)		1		1	4		4		10	2.5	\$1,385.00
c. Inlet Drainage Area Delineation			6		9	45			60	N/A	\$9,705.00
d. Inlet and Spread Calculations	2	6		12	20				40	N/A	\$7,040.00
e. Additional Drainage Area & Overland Sheet Flow Map (est. 1 sheets)				1	1		2		4	2.0	\$515.00
ii. Design, Plan & Profile											
a. Final Vertical Design	2	4		12	30		4		52	N/A	\$8,460.00
b. Final Intersection Design	1	4		6	9				20	N/A	\$3,600.00
c. Transition Design on Pool Hill Road	1	2		6	9				18	N/A	\$3,140.00
d. Intersection Calculations		2		5	12		4		23	4.6	\$3,515.00
e. Proposed Drainage Layout (est. 2 sheets)		1		2	9		9		21	10.5	\$2,785.00
f. Storm Sewer/Drainage Design	2	18		30	40				90	11.3	\$15,950.00
g. Drainage and Roadway Plan and Profile (est. 11 sheets)		4		12	18		80		114	14.3	\$13,320.00
h. Earthwork Cross Sections and Cut/Fill Calculations (est. 5 sheets)		3		9	18		9		39	7.8	\$5,820.00
i. Paving Marking, Striping, and Traffic Sign Plans (est. 6 sheets)				3	12		24		39	7.8	\$4,605.00
j. Traffic Signal Plans		1		1	3		3		8	N/A	\$1,140.00
iii. Storm Water Pollution Prevention Plan											
a. Storm Water Pollution Prevention Plan Sheets (est. 4 sheets)				1	1		2		4	1	\$515.00
iv. Project Manual											
a. Sheet by Sheet Quantity Take-off and Cost Estimate	2	4		12	27				45	N/A	\$7,630.00
200.C SUBTOTAL Design and Deliverables Hours	10	57	0	124	262	0	145	0	598		
200.C SUBTOTAL Design and Deliverables Fee	\$2,800.00	\$13,110.00	\$0.00	\$21,700.00	\$39,300.00	\$0.00	\$13,775.00	\$0.00			\$90,685.00
200.D Bid Phase Services											
i. Answer Contractor Inquiries, Draft and Issue Addendums (Anticipate additional inquiries)	1	3		9					13	N/A	\$2,545.00
200.D SUBTOTAL Bid Phase Services Hours	1	3	0	9	0	0	0	0	13		
200.D SUBTOTAL Bid Phase Services Fee	\$280.00	\$690.00	\$0.00	\$1,575.00	\$0.00	\$0.00	\$0.00	\$0.00			\$2,545.00
400. OPTIONAL ADDITIONAL SERVICES											
012 Detention Pond Design (Potential 2nd Basin due to Increased Impervious Cover)											
a. Basin Design and Layout (estimated 2 sheets)		2		6	12		20		40	20.0	\$5,210.00
b. Cross Sections (estimated 4 sheets)		2		4	6		18		30	7.5	\$3,770.00
c. Weir Plan and Profile Sheet (estimated 4 sheets)		2		4	9		18		33	8.3	\$4,220.00
d. Outfall Plan and Profile Sheet (estimated 4 sheets)		1		4	9		18		32	8.0	\$3,990.00
e. Geometric Layout (estimated 4 sheets)		1		4	6		12		23	5.8	\$2,970.00
f. SWPPP Layout (estimated 2 sheets)		1		4	6		9		20	10.0	\$2,685.00
400.012 SUBTOTAL Optional Additional Services Hours	0	9	0	26	48	0	95	0	178		
400.012 SUBTOTAL Optional Additional Services Fee	\$0.00	\$2,070.00	\$0.00	\$4,550.00	\$7,200.00	\$0.00	\$9,025.00	\$0.00			\$22,845.00
TOTAL Design Phase Services Hours	26	91	0	181	310	0	240	0	848		
TOTAL Design Phase Services Fee	\$7,280.00	\$20,930.00	\$0.00	\$31,675.00	\$46,500.00	\$0.00	\$22,800.00	\$0.00			\$129,185.00

PROJECT NAME: ROGERS RD SEGMENT 1

CONTRACT NUMBER:

DATE: 06/06/2025

CONSTRUCTION PHASE SERVICE

Description/Task	Department Manager	Sr. Project Manager I	Project Manager	Assistant Project Manager	Engineer-In-Training III	Designer	CADD Operator	Admin Assistant	Subtotal (hrs)	Total Fee
Hourly Billing Rate	\$280.00	\$230.00	\$215.00	\$175.00	\$150.00	\$150.00	\$95.00	\$100.00		
300. CONSTRUCTION PHASE SERVICES										
Project Management										
i. Review Submittals (Anticipate additional submittals compare to original scope)		2		6	10				18	\$3,010.00
ii. Review construction change orders and provide recommendation		5		6					11	\$2,200.00
iii. Review and respond to RFI's (Anticipate additional RFIs compare to original scope)		4		9	9		15		37	\$5,270.00
v. Develop final 'as built' drawings (Anticipate additional markups compare to original design scope)				2	6		10		18	\$2,200.00
300. SUBTOTAL Project Management Hours	0	11	0	23	25	0	25	0	84	
300. SUBTOTAL Project Management Fee	\$0.00	\$2,530.00	\$0.00	\$4,025.00	\$3,750.00	\$0.00	\$2,375.00	\$0.00		\$12,680.00
TOTAL Construction Phase Service Hours	0	11	0	23	25	0	25	0	84	
TOTAL Construction Phase Service Fee	\$0.00	\$2,530.00	\$0.00	\$4,025.00	\$3,750.00	\$0.00	\$2,375.00	\$0.00		\$12,680.00

PROJECT NAME: ROGERS RD SEGMENT 1

CONTRACT NUMBER:

DATE: 06/06/2025

TRAFFIC SERVICES

Description/Task	Sr. Project Manager	Project Manager	Project Engineer	EIT	Senior CAD Operator	CAD Operator	Senior Admin	Subtotal (hrs)	Total Fee
Hourly Billing Rate	\$314.00	\$243.00	\$174.00	\$138.00	\$170.00	\$154.00	\$108.00		
204. TRAFFIC SERVICES									
204.A Traffic Signal Warrant Analysis									
i. Data Collection & Field Reconnaissance		1	1	1				3	\$555.00
ii. Trip Generation and Distribution		1	1	2				4	\$693.00
iii. Traffic Signal Warrant Analysis		2	6	10				18	\$2,910.00
iv. Evaluate Intersection Capacity and LOS			1	3				4	\$588.00
v. Prepare Traffic Warrant Study, Report, and Exhibits		1	4	6	2	4		17	\$2,723.00
vi. Submit Draft Report	1	3	4	6			1	15	\$2,675.00
vii. Address Comments from FBC		2	4	2	2	2		12	\$2,106.00
viii. Submit Final Report	1	2	3	2			1	9	\$1,706.00
204.A SUBTOTAL Traffic Signal Warrant Analysis Services Hours		2	12	24	4	6	2	82	
204.4 SUBTOTAL Traffic Signal Warrant Analysis Services Fee	\$628.00	\$2,916.00	\$4,176.00	\$4,416.00	\$680.00	\$924.00	\$216.00		\$13,956.00
204.B Other Direct Expenses	Cost/Unit	Total							
Traffic Counts (13-Hour Turning Movement Counts)	\$750.00	\$750.00							
TOTAL Traffic Signal Warrant Analysis Service Hours		2	12	24	4	6	2	82	
TOTAL Traffic Signal Warrant Analysis Service Fee	\$628.00	\$2,916.00	\$4,176.00	\$4,416.00	\$680.00	\$924.00	\$216.00		\$14,706.00

PROJECT NAME: ROGERS RD SEGMENT 1

CONTRACT NUMBER:

DATE: 06/06/2025

TRAFFIC SIGNAL DESIGN SERVICES

Description/Task	Sr. Project Manager	Project Manager	Project Engineer	EIT	Senior CAD Operator	CAD Operator	Senior Admin	Subtotal (hrs)	Total Fee
Hourly Billing Rate	\$314.00	\$243.00	\$174.00	\$138.00	\$170.00	\$154.00	\$108.00		
400. TRAFFIC SIGNAL DESIGN SERVICES									
400.A Traffic Signal Design									
i. Incorporate Topo Survey		1	1	2	2	2		8	\$1,341.00
ii. Collect Existing Data		1	2	4				7	\$1,143.00
iii. Develop Existing Conditions Base Map			1	2	2	4		9	\$1,406.00
iv. Incorporate Proposed Roadway Plans	1	1	4	4	2	4		16	\$2,761.00
v. Prepare Traffic Signal Layout Base Map (Temporary, Half-Boulevard)			2	8	4	8		22	\$3,364.00
vi. Prepare Traffic Signal Layout Base Map (Full-Boulevard)			2	8	4	8		22	\$3,364.00
vii. Evaluate and Tabulate Electrical Diagrams		1	2	8	2	4		17	\$2,651.00
viii. Prepare Traffic Signal Elevation Diagrams			1	4	4	8		17	\$2,638.00
ix. Prepare Proposed Signing and Pavement Marking Layout			1	2	2	4		9	\$1,406.00
x. Compile All Standards and Details		1	2	4		4		11	\$1,759.00
xi. Calculate Quantities and Prepare Cost Estimates	1	2	2	6		2		13	\$2,284.00
xii. Produce Construction Plan Sheet Set			4	8	4	6		22	\$3,404.00
xiii. Submit Interim Set of Construction Plans	1	2	4	4			2	13	\$2,264.00
xiv. Address Comments from FBC		1	2	4	2	4		13	\$2,099.00
xv. Prepare Final Construction Package	1	2	2	4		2	2	13	\$2,224.00
400.A SUBTOTAL Traffic Signal Design Hours	4	12	32	72	28	60	4	212	
400.A SUBTOTAL Traffic Signal Design Fee	\$1,256.00	\$2,916.00	\$5,568.00	\$9,936.00	\$4,760.00	\$9,240.00	\$432.00		\$34,108.00
400.B Construction Phase Services									
i. On-Site Construction Observation Visits			4	4				8	\$1,248.00
ii. Respond to RFIs and Review Submittals	1	2	4	8	2	4		21	\$3,556.00
iii. Prepare a Submittal Completion Punch List	1	2	2	4				9	\$1,700.00
400.B SUBTOTAL Construction Phase Services Hours	2	4	10	16	2	4	0	38	
400.B SUBTOTAL Construction Phase Services Fee	\$628.00	\$972.00	\$1,740.00	\$2,208.00	\$340.00	\$616.00	\$0.00		\$6,504.00
TOTAL Traffic Signal Design Services Hours	6	16	42	88	30	64	4	250	
TOTAL Traffic Signal Design Services Fee	\$1,884.00	\$3,888.00	\$7,308.00	\$12,144.00	\$5,100.00	\$9,856.00	\$432.00		\$40,612.00

Date: 05/27/2025

Mark Rotz, P.E.
Project Manager
R.G. Miller | DCCM
16340 Park Ten Place, Suite 350
Houston, Texas, 77084

RE: Rogers Road Segment 1 – Brookshire Creek Bridge Design Supplemental Scope and Fee Proposal

Dear Mr. Rotz,

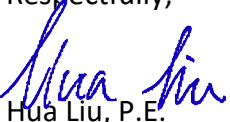
Thank you for the opportunity to assist Fort Bend County and R.G. Miller with the subject project. Attached you will find our supplement Scope and Fee proposal for Brookshire Creek Bridge Design.

The following is a Cost Summary of the Design Services and Construction Phase Services. Detailed breakdown of the cost can be found in the attachments.

Summary		
Design Services and Expense	Lump Sum	\$70,270.00
	Supplemental Contract Cost:	\$70,270.00

We look forward to working with you on this important project for Fort Bend County.

Respectfully,


Hua Liu, P.E.

Bridge Project Engineer

IEA Inc.

13501 Katy Freeway, Suite 3425, Houston, TX 77079
Direct 832-380-2617



Wilson Wong, P.E.

Houston Office Director

IEA Inc.

13501 Katy Freeway, Suite 3425, Houston, TX 77079
Direct 832-494-3790 • Cell 832-275-5037

Attachments: Attachment A – FBC-Rogers Road Seg 1 Bridge – SUPPLEMENTAL SCOPE
Attachment B – FBC-Rogers Road Seg 1 Bridge – SUPPLEMENTAL FEE PROPOSAL

**ATTACHMENT A
SUPPLEMENTAL SCOPE OF SERVICES
ROGERS ROAD SEGMENT 1 BRIDGE OVER BROOKSHIRE CREEK
(BASIC SERVICES AND CONSTRUCTION PHASE SERVICES)**

BASIC SERVICES

Provide bridge layout and detailed design for an additional bridge in accordance with the latest version of applicable procedures, specifications, manuals, guidelines, standard drawings, and standard specifications. Detailed scope is as follows:

- 1) Evaluate existing topo data.
- 2) Coordination with engineers and evaluating bridge limits.
- 3) Bridge type alternative analysis
- 4) Review soil boring data and geotechnical.
- 5) Identify any utility conflicts.
- 6) Perform bridge analysis and detailing as follows:
 - a) Bridge Layout and typical section
 - b) Abutment no. 1 and 2 plan & elevation.
 - c) Abutment details
 - d) Bridge slab plan and sections with sidewalk
 - e) Bridge Girder Layout
 - f) Prestressed concrete girder design table
 - g) Miscellaneous details
 - h) Bridge quantities and Step elevations
 - i) List of TxDOT Bridge standard details.
- 7) Prepare specifications and special provision.
- 8) Prepare construction cost estimate.
- 9) Coordinate with RG Miller, FBC and FBCDD
- 10) Prepare invoices, progress reports, meeting minutes.
- 11) QA/QC

Rogers Road Segment 1 Bridge over Brookshire Creek
Cost Summary
Basic Services and Construction Phase Services- Supplement
IEA, Inc.

Summary	Method of Payment	Total Cost
Design Services and Expense	Lump Sum	\$70,270.00
Total Contract Cost:		\$70,270.00

Rogers Road Segment 1 Bridge over Brookshire Creek
Cost Summary
Basic Services -Supplement
IEA, Inc.

1. Basic Services (Lump Sum)

Task Description	No. of Sheets	Project Manager	Sr. Structural Engineer	Engineer In Training	CADD Designer	Clerical	Total
1 Evaluate existing topo data			2	4			6
2 Coordinate with engineers and evaluate bridge limits			2		4		6
3 Bridge type alternative analysis		2	4	8	8		22
4 Review soil boring data and geotechnical			4	4			8
5 Identify any utility conflict		2	2	4	2		10
6 Perform bridge analysis and detailing as follows							
<u>Detailed Design</u>							
a Bridge layout and typical section	1	4	8	16	16		44
b Abutment no. 1 and 2 plan & elevation	2		8	20	12		40
c Abutment details	1		4	16	12		32
d Bridge slab plan and sections with sidewalk	1		6	12	16		34
e Bridge Girder Layout	1		4	12	6		22
f Prestressed concrete girder design table	1		6	16	6		28
g Miscellaneous details	1		4	8	12		24
h Bridge quantities and Step elevationsbearing seat	1	2	6	8	4		20
i List of TxDOT Bridge standard details	15	2	4	6	4		16
7 Prepare specifications and special provisor		4	4	2		4	14
8 Prepare construction cost estimate		4	4	2		4	14
9 Coordinate w/ RG Miller, FBC and FBCDD		4	8			6	18
10 Prepare invoices, progress reports, meeting minutes		4	4			12	20
11 QA/QC			40				40
Subtotal	24	28	124	138	102	26	418
Contract Rates		\$280.00	\$240.00	\$120.00	\$135.00	\$90.00	
Total Labor Fee		\$7,840.00	\$29,760.00	\$16,560.00	\$13,770.00	\$2,340.00	\$70,270.00

Total Cost: \$70,270.00

CHANGE ORDER REQUEST

Additional Service Compensation Request By:

WES Representative Name	John W. Harvill, RPLS
WES Representative Title	Director of Surveying
Date of Request	6-2-25
WES Job No.	EF809
Job Location	Roger Road, Segment 1

Client Information

Client Name.	RG Miller
Client Address	1080 Eldridge Parkway, Suite 600, Houston, TX 77077
Client Representative Name	Robbie Jiang, PE
Client PO/Reference Job No.	N/A

Additional Services Requested/Performed	Additional Topographic Survey of approximately 1,000 linear feet of new limits, and an additional 30 feet within existing limits, as shown on the attached Exhibit. Additional Survey Control and Right-of-Way Survey will be necessary within the new additional Limits.
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Deliverables Included	Revised AutoCAD File and PDF Map Sheets
Estimated Completion Date	25 Business Days from NTP

Compensation for Additional Services Including Applicable State Sales Tax: \$18,800.00 TOTAL COST


TERMS AND CONDITIONS

This Change Order is entered into (1) pursuant to the terms of the Agreement and the Terms and Conditions herein, or (2) if an Agreement is not currently in effect, then in accordance with the Terms and Conditions herein, by and between Weisser Engineering Company, Inc. DBA Weisser Engineering & Surveying, a Texas corporation ("WES") and the Client named above. WES agrees to perform the Additional Services for Client pursuant to the terms, conditions and provisions of the Agreement, if applicable, and this Change Order. The cost estimate is based on portal to portal from our office located at 19500 Park Row, Houston to the job site. Client promises to pay each of WES's invoices within thirty (30) days of receipt of invoice.

By signing below, Client affirms that the individual signing below has the requisite authority to authorize the commitment described herein, agrees to be legally bound by the terms herein, and that this Change Order is by reference hereby made part of the Agreement, if applicable. **WES'S LIABILITY TO CLIENT FOR CLAIMS OF ANY KIND, WHETHER BASED ON CONTRACT OR TORT OR OTHERWISE RELATING TO THIS CHANGE ORDER, SHALL NOT EXCEED THE COMPENSATION PAID OR OWED TO WES FOR SERVICES UNDER THIS**

CHANGE ORDER. In no event shall WES be liable to Client for any unrealized costs, anticipated profits, or any other consequential damages.

This Change Order Is Agreed To & Accepted By:

Authorizing Contractor	Weisser Engineering & Surveying
Company Name:	
Signature:	Printed Name: Taylor R. Sass
Printed Name:	Title: President & CEO
Title:	
Contact Email:	
Phone Number:	

M:\000002840\0000 ROGERS ROAD SEGMENT 1\SUBCONSULTANTS\WESSER - SURVEY\SENT\2025\05\09 RESCOPED SURVEY REQUEST WITH INTERSECTION\RECORDED SURVEY REQUEST 05.09.25.DWG | SAVED: Thursday, May 29, 2025 10:42:45 AM | PLOTTED: Thursday, May 29, 2025 10:44:33 AM

30 FEET OFFSET FROM THE PROPOSED ROW PER FBC GUIDELINE
(REFER TO CAD FILE TO MORE ACCURATE ROW LOCATION)

30 FEET OFFSET FROM PROPOSED ROW PER FBC GUIDELINE
(REFER TO CAD FILE FOR MORE ACCURATE ROW LOCATION)

APPROXIMATE. 915 LF WEST
FROM PREVIOUS SURVEY LIMIT

HANNIBAL RD.

ROGERS RD.

30 FEET OFFSET FROM
PROPOSED ROW PER FBC
GUIDELINE
(REFER TO CAD FILE FOR
MORE ACCURATE ROW
LOCATION)

POOL HILL RD.

ADDITIONAL SURVEY AREA
REQUEST

RG Miller
DCCM

R.G. Miller Engineers, Inc. | TxEng F - 487
1080 Eldridge Parkway, Ste 600
Houston, TX 77007
713.461.9600 | rgmiller.com

DATE: 5/29/2025



RG Miller / Fort Bend County

Rogers Road Additional Area

Task Description	Principal	Sr Project Manager (RPLS)	Survey/Project Manager	Project Supervisor	Civil / Design Engineer	Consulting Engineer (PE)	Engineering Technician	Survey Tech	Records Research	CADD Designer	CADD Operator	Field Crew Coordinator	3-Person Survey Crew	2-Person Survey Crew	Clerical	HSE Compliance	Total reimbursables from below	Estimated Total Project Cost Including Reimbursable Expenses
Hourly Rate	\$200.00	\$160.00	\$145.00	\$135.00	\$150.00	\$160.00	\$110.00	\$110.00	\$85.00	\$98.00	\$95.00	\$105.00	\$170.00	\$145.00	\$65.00	\$140.00		
% of Cost	0%	14%	0%	0%	0%	0%	0%	18%	0%	0%	22%	3%	0%	42%	1%	0%		
Control		2.0						8.0			8.0	1.0		10.0	1.0			
Dollar amounts for Control	\$0.00	\$320.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$880.00	\$0.00	\$0.00	\$760.00	\$105.00	\$0.00	\$1,450.00	\$65.00	\$0.00	\$0.00	\$3,580.00
ROW		6.0						16.0			12.0	1.0		10.0	1.0			
Dollar amounts for ROW	\$0.00	\$960.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,760.00	\$0.00	\$0.00	\$1,140.00	\$105.00	\$0.00	\$1,450.00	\$65.00	\$0.00	\$0.00	\$5,480.00
TOPO		8.0						6.0			24.0	3.0		35.0	2.0			
Dollar amounts for TOPO	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$660.00	\$0.00	\$0.00	\$2,280.00	\$315.00	\$0.00	\$5,075.00	\$130.00	\$0.00	\$0.00	\$9,740.00
Dollar amounts for SEPARATE ITEMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reimbursables																		
TOTAL ESTIMATED COST	\$0.00	\$2,560.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,300.00	\$0.00	\$0.00	\$4,180.00	\$525.00	\$0.00	\$7,975.00	\$260.00	\$0.00	\$0.00	\$18,800.00
Total hours	0.00	16.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	44.00	5.00	0.00	55.00	4.00	0.00		

ESTIMATED REIMBURSABLE EXPENSES	Control	ROW	TOPO	Level "A" SUE	Project Description
Reimbursable: Level "A" SUE Cost					
Reimbursable: Estimated fees associated with outside reproduction					
Boat (\$200/day) Note: Boat with captain is different pricing category					
Specialty Equipment Rental as required by client					
Estimated RR Crossings (Historically, easement access application fee is approx. \$1000 each and the Railroad company-required flagman is approx. \$800/day under non-rush conditions)					
GPS Equipment					
Outside Services					
Per diem (\$50.00/day per person for overnight stays)					
Hotel expenses					
ATV (\$75 / day)					
Mileage (\$0.67 / mile)					
Additional reimbursable expenses					
TOTAL ESTIMATED REIMBURSABLES	\$0.00	\$0.00	\$0.00	\$0.00	

\$0.67

June 5, 2025

Proposal No: GP24-0605_A

Mr. Mark Rotz, P.E.
Project Manager
R.G. Miller Engineers, Inc.
16340 Park Ten Place, Suite 350
Houston, Texas 77084

Reference: Proposal for Geotechnical Investigation
Rogers Road Segment 1 – Transition Segment
Fort Bend County, Texas

Mr. Rotz:

Associated Testing Laboratories, Inc. (ATL) is pleased to submit a proposal for the above-referenced project. Our goal for the geotechnical field investigation, testing, and soil data report should comply with the requirements of Fort Bend County Engineering Guidelines.

INTRODUCTION

We understand that **R.G. Miller/DCCM** is in contract with Fort Bend County to provide design engineering services for the Rogers Road **Segment 1 Road Paving** project.

SCOPE OF WORK:

Fort Bend County is requesting one (1) soil boring at 15 ft deep to be drilled along the transition segment from station 00+00 until 14+00 shown in **Figure 1**.

The objective of this geotechnical investigation is to perform soil borings along the project area, gather and analyze the field and laboratory geotechnical information and data, and prepare a written report presenting the subsurface conditions found along the project alignment, with geotechnical recommendations for the design and construction of the proposed transition segment along Rogers Road from station 00+00 until 14+00 with a total length of approximately 1,400 LF.

GEOTECHNICAL INVESTIGATION

Field Exploration

The proposed boring is located in existing street pavement areas. Mechanical truck coring machines will perform coring in the boring location before soil drilling and sampling. The boring will be drilled using a truck-mounted rig.

The project alignment is located on a 2-lane-traffic road. Thus, traffic control measures including

signs, cones, as well as flagmen will be required during pavement coring and at the time of pavement coring and actual soil drilling and sampling.

The following boring is proposed to investigate the subsurface soils and groundwater conditions. The site location plan is presented in **Figure 1** as shown in Table A below:

Boring No. (Piezometer)	No of Borings	Street / Location	Depth, ft	Total, ft
B-1	1	Rogers Road Segment 1 - Transition Segment	15	15
TOTAL, LINEAR FEET, LF				15

Soil samples will be obtained continuously to 15 ft deep, the termination depths. Standard Penetration Tests (SPT) will be performed in sands if encountered, and clays will be sampled by Shelby tube. Shear strengths of the clays will be measured in the field with a hand penetrometer and correlations between this data and laboratory shear strength data will be made during analysis.

Depth to groundwater will be important for the design and construction of this project. For this reason, the borings will be drilled dry until groundwater is encountered, or caving of soils occurs. Drilling will be suspended for 15 minutes to facilitate water level observation in the boring. After recording the water level, drilling will be resumed. The boreholes will be backfilled with soil cuttings and the pavement surface core will be patched back with lean concrete.

Laboratory Testing

Laboratory tests will be assigned corresponding to the types of soils encountered to classify the soil's physical and index properties, moisture contents, unconfined compressive strength, undrained unconsolidated compressive strength, Atterberg limits, percent finer than No. 200 sieve, sieve analysis and dry density.

All tests will be performed in accordance with the American Society of Testing Materials (ASTM) Procedures. Estimated test types and quantities are presented on the attached sheet.

Engineering Analyses and Reporting

The field and laboratory data will be summarized in an engineering report. Analyses of data will be presented, and recommendations made in accordance with the Fort Bend County Engineering Criteria Guidelines. The following geotechnical information and recommendations will be provided:

- Boring logs in GeoLogs format and boring log profiles showing the generalized soil stratigraphy and groundwater levels.
- Site preparation and grading.
- Discussion of subsurface soils and stratigraphy and groundwater information.
- Pavement recommendations.
- Construction recommendations.

COST ESTIMATE

Based on the scope of geotechnical work outlined above, we estimate the following costs:

Geotechnical Investigation for Proposed	Estimated Fee
Rogers Road Segment 1 – Transition Segment	\$7,064.00

The cost estimates using the project quantities and requirements are presented in the enclosed **Itemized Geotechnical Fee Estimate** spreadsheet. This estimate assumes that: (i) underground utilities at proposed boring locations will be cleared by Texas 811 Call Service and/or private property maintenance personnel; (ii) the boring sites will be accessible to our truck-mounted drill rig equipment; (iii) permission/permit to access the site if needed, will be arranged by others at no cost to ATL.

TIME SCHEDULES

We estimate that the fieldwork can be started immediately after authorization is received. The field staking and utility clearance will take about one week. The field investigation will take about 1 week, and the regular laboratory testing will take about 2 to 3 weeks. A geotechnical report draft will be submitted approximately 3 to 4 weeks after receiving the official notice to proceed.

We appreciate the opportunity to submit this proposal and look forward to serving you on this project.

Thank you,
ASSOCIATED TESTING LABORATORIES, INC.



Anita Singh, P.E.
Principal

Enclosure:
Figure1 – Boring Location Plan
LOE

Rogers Rd Segment 1

Legend
● Boring Location



Google Earth

Image © 2025 Airbus



300 ft

Geotechnical Investigation Proposal
Rogers Road Segment 1 - Paving Additions

Fort Bend County, Texas
ATL Proposal No. GP2024-0605_A
June 5, 2025



ITEMIZED GEOECHANICAL FEE ESTIMATE
Rogers Road Segment 1 - Paving Additions

Borings: 1@15' [15 LF]				
A. FIELD EXPLORATION	Current Qty.	Unit	Unit Rate	Amount
Mobilization/Demobilization (Truck Rig)	1	LS	\$746.00	\$746.00
Mobilization/Demobilization - ATV Rig Surcharge	0	LS	\$266.00	\$0.00
Technician for Staking, Utilities Clearance, Coordination	8	hrs.	\$96.00	\$768.00
Soil Drilling and Sampling (continuous; <up to 20')	15	ft.	\$27.00	\$405.00
Soil Drilling and Sampling (20'-50' continuous)	0	ft.	\$32.00	\$0.00
ATV Surcharge	0	ft.	\$11.00	\$0.00
Soil Drilling and Sampling (0'-50' intermittent)	0	ft.	\$24.00	\$0.00
Logging (NICET II)	8	hr.	\$96.00	\$768.00
Grouting Holes	15	ft.	\$13.00	\$195.00
Coring (6-inches)	1	ea.	\$192.00	\$192.00
Coring (>6-inches thickness)	6	ft.	\$18.00	\$108.00
Piezometer Installation	0	ft.	\$26.00	\$0.00
Piezometer Abandonment	0	ft.	\$21.00	\$0.00
24-Hr, 7-Day & 1 month PZ Water Level Readings	0	hrs.	\$96.00	\$0.00
Vehicle Charge	8	hrs.	\$13.00	\$104.00
	SUBTOTAL			\$3,286.00
B. GEOTECHNICAL LABORATORY TESTING		Unit	Unit Rate	Amount
Moisture Content (ASTM D-2216)	8	ea.	\$12.00	\$96.00
Atterberg Limits (ASTM D-4318)	3	ea.	\$76.00	\$228.00
Passing No. 200 Sieve (ASTM D-1140)	3	ea.	\$59.00	\$177.00
Unconfined Compression (ASTM D-2166)	2	ea.	\$54.00	\$108.00
Unconsolidated-Undrained Triaxial Test (ASTM D-2850)	3	ea.	\$77.00	\$231.00
Consolidated-Undrained Triaxial Test (ASTM D-4767) *3-stage w/3 samples/set	0	ea.	\$1,800.00	\$0.00
Double Hydrometer Tests (ASTM D-4221), with D ₉₀ and D50	0	ea.	\$266.00	\$0.00
Crumb Tests (ASTM D-6572)	0	ea.	\$46.00	\$0.00
Specific Gravity (ASTM D854)	0	ea.	\$71.00	\$0.00
	SUBTOTAL			\$840.00
D. TRAFFIC CONTROL				
Flagmen	8	hrs.	\$55.00	\$440.00
Peace Officer	0	hrs.	\$75.00	\$0.00
	SUBTOTAL			\$440.00
D. ANALYSES & REPORT PREPARATION		Unit	Unit Rate	Amount
Senior Engineer (P.E.)	2	hrs.	\$218.00	\$436.00
Project Manager (P.E.)	5	hrs.	\$176.00	\$880.00
Graduate Engineer	6	hrs.	\$122.00	\$732.00
Draftsman/word Processor	6	hrs.	\$75.00	\$450.00
	SUBTOTAL			\$2,498.00
TOTAL ESTIMATED FEE OF PROPOSED SCOPE				\$7,064.00

June 5, 2025

Proposal No: GP24-0605_B

Mr. Mark Rotz, P.E.

Project Manager

R.G. Miller Engineers, Inc.

16340 Park Ten Place, Suite 350

Houston, Texas 77084

**Reference: Proposal for Geotechnical Investigation
Rogers Road Segment 1 – Brookshire Creek Bridge
Fort Bend County, Texas**

Mr. Rotz:

Associated Testing Laboratories, Inc. (ATL) is pleased to submit a proposal for the above-referenced project. Our goal for the geotechnical field investigation, testing, and soil data report should comply with the requirements of Fort Bend County Engineering Guidelines.

INTRODUCTION

We understand that **R.G. Miller/DCCM** is currently under contract with Fort Bend County to provide design engineering services for the Rogers Road Segment 1 – Bridge at Brookshire project.

SCOPE OF WORK:

Based on the available project information, and at the request of the bridge engineer for the project, two (2) soil borings at 100 ft deep have been proposed at each side of the existing bridge and the widening section shown in **Figure 1 – Boring Location Plan**.

The objective of this geotechnical investigation is to conduct soil borings in the vicinity of the proposed bridge location, collect and analyze geotechnical data through field exploration and laboratory testing, and prepare a written report detailing the subsurface conditions encountered. The report will include geotechnical recommendations to support the design and construction of the proposed bridge reconstruction at Brookshire Creek, spanning Rogers Road.

GEOTECHNICAL INVESTIGATION

Field Exploration

The project is located on a 2-lane-traffic road requiring traffic control measures including signs, cones, as well as flagmen at the time of actual soil drilling and sampling. The proposed borings are located near the existing bridge and will be drilled using an ATV-mounted rig.

Based on the available project information, and at the request of the bridge engineer for the project, the following borings have been proposed to investigate the subsurface soils and groundwater conditions. The site location plan is presented in **Figure 1** as shown in Table A below:

Boring No. (Piezometer)	No of Borings	Street / Location	Depth, ft	Total, ft
B-1 through B-2	2	Bridge at Brookshire Creek – widening section of the bridge	100	200
B-1 & B-2, (Piezometers PZ-1 & PZ-2)	2	Rogers Road Segment 1 (Bridge Borings)	*50	*100
TOTAL, LINEAR FEET, LF				200

**Piezometer PZ-1 & PZ-2 will be installed at B-1 & B-2 to a depth of 50 ft. each after sampling and drilling.*

Soil samples will be obtained continuously to the termination depths. Standard Penetration Tests (SPT) will be performed in sands if encountered, and clays will be sampled by Shelby tube. Shear strengths of the clays will be measured in the field with a hand penetrometer and correlations between this data and laboratory shear strength data will be made during analysis.

Depth to groundwater will be important for the design and construction of this project. For this reason, the borings will be drilled dry until groundwater is encountered, or caving of soils occurs. Drilling will be suspended for 15 minutes to facilitate water level observation in the boring. After recording the water level, drilling will be resumed. The boreholes will be backfilled with soil cuttings.

Laboratory Testing

Laboratory tests will be assigned corresponding to the types of soils encountered to classify the soil's physical and index properties, moisture contents, unconfined compressive strength, undrained unconsolidated compressive strength, Atterberg limits, percent finer than No. 200 sieve, sieve analysis, dry density, crumb test, double hydrometer test, consolidated undrained triaxial test, and specific gravity.

All tests will be performed in accordance with the American Society of Testing Materials (ASTM) Procedures. Estimated test types and quantities are presented on the attached sheet.

Engineering Analyses and Reporting

The field and laboratory data will be summarized in an engineering report. Analyses of data will be presented, and recommendations made in accordance with the Fort Bend County Engineering Criteria Guidelines. The following geotechnical information and recommendations will be provided:

- Boring logs in GeoLogs format and boring log profiles showing the generalized soil

stratigraphy and groundwater levels.

- Site preparation and grading.
- Discussion of subsurface soils and stratigraphy and groundwater information.
- Suitability for reuse of on-site soil.
- Dewatering consideration and recommendations.
- Piezometer installation and groundwater measurements.
- Slope stability analyses for short-term, rapid drawdown, and long-term conditions.
- Soil dispersion tests (Crumb and Double Hydrometer - D₉₅ & D₅₀ values).
- Deep foundation recommendations for the reconstruction bridge at Brookshire Creek, including capacity curves for driven piles and drilled shafts, and foundation construction recommendations.

COST ESTIMATE

Based on the scope of geotechnical work outlined above, we estimate the following costs:

Geotechnical Investigation for Proposed	Estimated Fee
Proposed Brookshire Creek Bridge Widening	\$90,232.00
Previously Approved Amount	\$56,157.00
Remaining Amount	\$34,075.00

The cost estimates using the project quantities and requirements are presented in the enclosed **Itemized Geotechnical Fee Estimate** spreadsheet. This estimate assumes that: (i) underground utilities at proposed boring locations will be cleared by Texas 811 Call Service and/or private property maintenance personnel; (ii) the boring sites will be accessible to our truck-mounted drill rig equipment; (iii) permission/permit to access the site if needed, will be arranged by others at no cost to ATL.

Change in scope:

The requested increase in boring depth for the bridge investigation has resulted in a significant escalation in the required level of effort across multiple phases of the project. Deeper borings necessitate extended fieldwork, additional soil sampling, and a broader suite of laboratory tests to adequately characterize the subsurface conditions at the greater depths. This, in turn, increases the engineering effort needed for preparation of boring logs, interpretation of laboratory results, geotechnical characterization, and integration of the data into the subsurface profile and design recommendations.

TIME SCHEDULES

We estimate that the fieldwork can be started immediately after authorization is received. The field staking and utility clearance will take about one week. The field investigation will take about 1 to 2 weeks, and the regular laboratory testing will take about 6 to 8 weeks. A geotechnical report draft will be submitted approximately 10 to 12 weeks after receiving the official notice to proceed.

We appreciate the opportunity to submit this proposal and look forward to serving you on this project.

Thank you,
ASSOCIATED TESTING LABORATORIES, INC.




Anita Singh, P.E.
Principal


Enclosure: Figure1 – Boring Location Plan
 LOE

Rogers Road Segment 1 Bridge

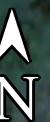
Legend

 Boring Location


B-1


B-2

Rogers Rd



Geotechnical Investigation Proposal
 Brookshire Bridge at Rogers Rd Segment 1 Additions

Fort Bend County, Texas
 ATL Proposal No. GP2024-0605_B
 June 5, 2025



ITEMIZED GEOECHNICAL FEE ESTIMATE

Brookshire Bridge at Rogers Rd Segment 1 Additions

Borings: 2@100', Total [200 LF] , & 2 Piezometers @ 50LF, Total[100LF]				
A. FIELD EXPLORATION				
	Current Qty.	Unit	Unit Rate	Amount
Mobilization/Demobilization (Truck Rig)	1	LS	\$746.00	\$746.00
Mobilization/Demobilization - ATV Rig Surcharge	1	LS	\$266.00	\$266.00
Technician for Staking, Utilities Clearance, Coordination	40	hrs.	\$96.00	\$3,840.00
Soil Drilling and Sampling (continuous; <up to 20')	40	ft.	\$27.00	\$1,080.00
Soil Drilling and Sampling (20'-50' continuous)	160	ft.	\$32.00	\$5,120.00
ATV Surcharge	200	ft.	\$11.00	\$2,200.00
Logging (NICET II)	32	hr.	\$96.00	\$3,072.00
Grouting Holes	0	ft.	\$13.00	\$0.00
Coring (6-inches)	0	ea.	\$192.00	\$0.00
Coring (>6-inches thickness)	0	ft.	\$18.00	\$0.00
Piezometer Installation	100	ft.	\$26.00	\$2,600.00
Piezometer Abandonment	100	ft.	\$21.00	\$2,100.00
24-Hr, 7-Day & 1 month PZ Water Level Readings	40	hrs.	\$96.00	\$3,840.00
Vehicle Charge	80	hrs.	\$13.00	\$1,040.00
Site Clean up	2	ea.	\$500.00	\$1,000.00
	SUBTOTAL			\$26,904.00
B. GEOTECHNICAL LABORATORY TESTING				
		Unit	Unit Rate	Amount
Moisture Content (ASTM D-2216)	100	ea.	\$12.00	\$1,200.00
Atterberg Limits (ASTM D-4318)	40	ea.	\$76.00	\$3,040.00
Passing No. 200 Sieve (ASTM D-1140)	40	ea.	\$59.00	\$2,360.00
Unconfined Compression (ASTM D-2166)	30	ea.	\$54.00	\$1,620.00
Unconsolidated-Undrained Triaxial Test (ASTM D-2850)	50	ea.	\$77.00	\$3,850.00
Consolidated-Undrained Triaxial Test (ASTM D-4767) *3-stage w/3 samples/set	2	ea.	\$1,800.00	\$3,600.00
Double Hydrometer Tests (ASTM D-4221), with D ₉₀ and D50	10	ea.	\$266.00	\$2,660.00
Crumb Tests (ASTM D-6572)	40	ea.	\$46.00	\$1,840.00
Specific Gravity (ASTM D854)	8	ea.	\$71.00	\$568.00
Consolidation Tests	4	ea.	\$1,200.00	\$4,800.00
	SUBTOTAL			\$25,538.00
D. TRAFFIC CONTROL				
Flagmen	40	hrs.	\$55.00	\$2,200.00
Peace Officer	0	hrs.	\$75.00	\$0.00
	SUBTOTAL			\$2,200.00
D. ANALYSES & REPORT PREPARATION				
		Unit	Unit Rate	Amount
Senior Engineer (P.E.)	40	hrs.	\$218.00	\$8,720.00
Project Manager (P.E.)	65	hrs.	\$176.00	\$11,440.00
Graduate Engineer	65	hrs.	\$122.00	\$7,930.00
Draftsman/word Processor	100	hrs.	\$75.00	\$7,500.00
	SUBTOTAL			\$35,590.00
TOTAL ESTIMATED FEE OF PROPOSED SCOPE				\$90,232.00