

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 EnTech Civil Engineers, Inc., (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, County desires that Contractor provide professional engineering services for improvements to Benton Road under 2020 Mobility Bond Project No. 20108 (hereinafter "Services") pursuant to SOQ 14-025; and

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

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

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

AGREEMENT

Section 1. Scope of Services

Contractor shall render the professional engineering services as described in Contractor's proposal dated May 6, 2021, attached hereto as Exhibit A, and incorporated herein for all purposes.

Section 2. Personnel

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

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

Section 3. Compensation and Payment

3.1 Contractor's fees shall be calculated at the rates set forth in the attached Exhibit A. The Maximum Compensation for the performance of Services within the Scope of Services described in Exhibit A is four hundred twenty-two thousand two hundred forty-five dollars and no/100 (\$422,245.00) 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 Contractor including any changes in the Scope of Services and revision of work satisfactorily performed will be performed only when approved in advance and authorized by County.

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

Section 4. Limit of Appropriation

4.1 Contractor clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of four hundred twenty-two thousand two hundred forty-five dollars and no/100 (\$422,245.00) specifically allocated to fully discharge any and all liabilities County may incur.

4.2 Contractor does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Contractor may become entitled to and the total maximum sum that County may become liable to pay to Contractor shall not under any conditions, circumstances, or interpretations thereof exceed four hundred twenty-two thousand two hundred forty-five dollars and no/100 (\$422,245.00).

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

Section 6. Modifications and Waivers

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

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

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

Section 7. Termination

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

7.2 Termination for Default

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

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

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

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

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

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

Section 8. Ownership and Reuse of Documents

All documents, data, reports, research, graphic presentation materials, etc., developed by Contractor as a part of its work under this Agreement, shall become the property of County upon completion of this Agreement, or in the event of termination or cancellation thereof, at the time

of payment under Section 3 for work performed. Contractor shall promptly furnish all such data and material to County on request.

Section 9. Inspection of Books and Records

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

Section 10. Insurance

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

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

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

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

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

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

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

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

Section 11. Indemnity

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

Section 12. Confidential and Proprietary Information

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

12.2 Contractor agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Contractor uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purposes whatsoever other than the provision of Services to County hereunder, and to advise each of its employees and agents of their obligations to keep Confidential Information confidential. Contractor shall use its best efforts to assist County in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Contractor shall advise County immediately in the event Contractor learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement and Contractor will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Contractor against any such person. Contractor agrees that, except as directed by County, Contractor will not at any time during

or after the term of this Agreement disclose, directly or indirectly, any Confidential Information to any person, and that upon termination of this Agreement or at County's request, Contractor will promptly turn over to County all documents, papers, and other matter in Contractor's possession which embody Confidential Information.

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

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

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

Section 13. Independent Contractor

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

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

Section 14. Notices

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

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

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

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

Contractor: EnTech Civil Engineers, Inc.
15021 Katy Freeway, Suite 500
Houston, Texas 77094

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

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

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

Section 15. Compliance with Laws

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

Section 16. Standard of Care

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

Section 17. Assignment

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

17.2 Neither party may delegate any performance under this Agreement.

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

Section 18. Applicable Law

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

Section 19. Successors and Assigns

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

Section 20. Third Party Beneficiaries

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

Section 21. Severability

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

Section 22. Publicity

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

Section 23. Captions

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

Section 24. Conflict

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

Section 25. Certain State Law Requirements for Contracts

25.1 Agreement to Not Boycott Israel Chapter 2271 Texas Government Code: By signature below, Contractor verifies that if Contractor employs ten (10) or more full-time employees and this Agreement has a value of \$100,000 or more, Contractor does not boycott Israel and will not boycott Israel during the term of this Agreement.

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

Section 26. Human Trafficking

BY ACCEPTANCE OF AGREEMENT, CONTRACTOR 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.

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

FORT BEND COUNTY

ENTECH CIVIL ENGINEERS, INC

KP George, County Judge



Authorized Agent – Signature

Date

Ovidio N. Alanis

Authorized Agent – Printed Name

ATTEST:

Executive Vice President

Title

Laura Richard, County Clerk

6/2/2021

Date

APPROVED:



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

APPROVED AS TO LEGAL FORM:

Marcus D. Spencer, First Assistant County Attorney

AUDITOR'S CERTIFICATE

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

Robert Ed Sturdivant, County Auditor

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EXHIBIT A

May 6, 2021

Mr. Kevin Mineo, P.E.
Manager of Precinct 1 Mobility Projects (Fort Bend County)
Binkley & Barfield, Inc.

RE: 20108 Benton Road: From Rice Field to FM 2977 at Koeblen

Dear Mr. Mineo:

Entech Civil Engineers Inc. (Entech) is pleased to have the opportunity to submit the attached proposal to Fort Bend County for the above referenced project. The following items are included for your review:

- Exhibit – Scope of Services
- Exhibit – Study and Design Phase Schedules
- Exhibit – Geotechnical Scope and Fee (sub-consultant)
- Exhibit – Survey Scope and Fee (sub-consultant)

Entech Civil Engineers, Inc. is pleased to provide engineering services to Fort Bend County for this project.

Sincerely,



Chris Orosco, P.E.
Project Manager

Attach: Exhibits

“EXHIBIT A” - Scope of Services
Benton Road
From Rice Field to FM 2977 at Koeblen

Fort Bend County has requested a proposal for preliminary studies, design services, and bid support services to construct a new 2-lane concrete half boulevard roadway with concrete curb and gutter and roadside ditches. This project includes two drainage canal crossings using concrete box culverts. Also included as an additional service is detention pond design and survey, if necessary, and all necessary appurtenances.

LIMITS

The Benton Road project will extend Benton Road from Rice Field to FM 2977 at Koeblen Road. The project will require 100' ROW to accommodate the proposed improvements. The proposed 2 lane concrete roadway with storm sewer, box culvert and possibly roadside swales/ditches. This project is on plan for a future major thoroughfare. The detention pond for this project will be sized for the future boulevard section.

ALIGNMENT

The Engineer is to consider the existing vertical and horizontal alignments provided by Fort Bend County. The final alignment will be approved by Fort Bend County and stakeholders.

PROJECT SCOPE

STUDY PHASE

The Study Report shall serve as a summary document that incorporates the recommendations from the supporting investigative reports, working meetings with Fort Bend County, necessary approvals and final recommendations. 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 is attached that identifies those sections that are required for the Study Report, including the exhibits and attachments as identified below. The Study Phase shall include the preparation and approval of reports necessary to support the recommendations and design of the roadway and all appurtenances including, but not limited to, Geotechnical Investigations and Drainage Studies. The preparation of a preliminary schematic layout will be developed.

The study phase shall include one client presentation meeting prepared by the consultant.

At the Preliminary Engineering Report (PER) meeting, the Consultant shall present the status of the project and go over key items from the draft PER to include, but not limited to, ROW, Alignment, Utilities, Parcels, Site triangles, Construction cost. Consultant shall provide preliminary schematics and exhibits to support discussions to solicit input from Fort Bend County on decision items.

Any issues identified during the Consultant's work effort to get to this project stage that require decision from Fort Bend County should be presented at this meeting for confirmation prior to finalizing the PER such that approval can be granted upon report submittal.

Exhibits/Attachments shall include, but not limited to the following:

- **Aerial Exhibit**

Provide an exhibit that shows the project limits and surrounding features. Identify notable features of interest, including drainage channels, floodplains, pipelines, roadways, future roadway alignments shown on the City of Houston's (or other municipality's) Major Thoroughfare Plan, latest available aerial photographs, and developments.

- **Schematic Layout of Roadway and Detention**

Provide a plan view layout with sufficient detail to ensure that the final design can be constructed without any major issues. Include the location of the proposed trunk storm sewer and detention facilities. 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 limits. The schematic should include 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. Identify the location of soil borings.

- **Cost Estimates**

Provide a preliminary construction cost estimate for the final recommendation provided in the Study Report.

- **Utility Tables**

The Consultant shall provide a table with all identified utilities along with the contact information. 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 owner of the utility, contact name, address, phone number, email address and any notes such as no conflict, potential conflict and/or relocation resolution.

The consultant shall coordinate with utility companies that have existing facilities in or adjacent to the project limits. The coordination shall include:

1. Identify utilities that will potentially require relocation. Major utilities are defined pipelines, concrete incased conduits, or other utilities of this nature. Overhead power lines, small gas service lines and other lines of this nature are not identified as major conflicts but will be identified in the utility table.

2. Identify any utilities that are within dedicated easements that will be within the proposed right-of-way. These are utilities identified and potential conflicts and will need to be designed around when possible.

- **Sight Distance Evaluation**

The consultant shall investigate sight distance restrictions and general operating conditions of all existing and proposed intersections within the project limits. Prepared exhibits which include the ROW and parcel lines, proposed layout of paving, features on private property that affect the sight distance and square footage of takings that would be required.

Topographic Survey and ROW mapping: *(Attached)*

Surveying for Detention Pond:

Survey shall conform to Fort Bend County Requirements

1. Additional abstracting may be required, if the detention pond is located on a parcel outside the project limits.
2. Survey will document structures within the 60' limit required for parcel takings for the pond.
3. Should the detention pond location be located in an area that requires additional level of effort (i.e. swamps, dense vegetation, etc.), Fort Bend County will be notified prior to commencing work.
4. TOPO Boundary would be 50' beyond the limits of the proposed detention pond
5. Locate trees on pond site (8" and above).
6. Pond description and taking will be included in the right-of-way taking description and exhibit.

Geotechnical: *(Attached)*

Drainage Impact Analysis:

- Obtain and review existing drainage data.

- Field reconnaissance
- Develop & present options (pre-modeling).
- Account for latest Atlas 14 rainfall data.
- Determine existing overall hydrologic conditions.
- Determine proposed overall hydrologic conditions.
- Existing SWMM Hydraulic Analysis
- Proposed SWMM Hydraulic Analysis
- Determine outfall requirements and downstream impact evaluation.
- Determine detention requirements and provide necessary mitigation.
- Obtain approval from Fort Bend County Drainage District, if required.
- Prepare Drainage Impact Report.
- Meet with Fort Bend County staff and Drainage District staff.

DESIGN PHASE

The design phase of the project shall consist of the preparation of complete construction documents that reflect the approved Study Report, (Plans, Specifications & Estimate (PS&E)). The final design shall be in accordance with the latest Fort Bend County Engineering Design Manual.

The Design shall build upon the framework identified in the Study Report and include roadway design, profiles, drainage system and appurtenances, details and the bid documents necessary for a complete design. The construction document PS&E submittal shall be considered final and ready for construction, barring minor comments from Fort Bend County.

Provide a list of traffic control standards to be used at the ends of the project.

The Design Submittal (PS&E) shall address all comments from the study phase of the project and the construction review meeting. The Design Submittal (PS&E) shall include the submittal of the construction ready plans on 11"x17", the project manual, and a final cost estimate.

The design phase shall also include, but is not limited to the following:

1. The coordination of utilities. The coordination shall include, but not be limited to:
 - a) Meet with the utility companies and provide information and plans as necessary.
 - b) Provide any documentation as necessary and assist Fort Bend County in entering into an agreement with the utility companies for the relocation of the facility.
2. Design of proposed improvements shall be in accordance with the Fort Bend County guideline.
3. The pavement elevation shall be set in accordance with the Fort Bend County Guidelines.
4. The pavement section shall be designed in accordance with the Guidelines. The results of the coring tests will be utilized to verify that the existing concrete pavement meets the Fort Bend County guidelines.

"EXHIBIT C" - Compensation for Professional Services

Project Name: Benton Road

Project Limits: Between Rice Field and FM 2977 at Koeblen

Construction Cost Estimate: \$ 3,149,500.00

1	Pre-Design Phase	\$	74,509.00	\$74,509.00
2	Design Phase	\$	176,038.00	\$176,038.00
3	Survey			
	Topographic Survey		\$47,400.00	
	Survey Control Map (6 sheets)		\$6,000.00	
	ROW Research (abstracting)		\$3,000.00	
	Existing ROW Maps		\$6,000.00	
				\$62,400.00
4	Geotechnical Report			
	Roadway		\$9,500.00	
	Extra depth borings (\$90/boring)			
				\$9,500.00
5	Drainage			
	Drainage Report		\$ 62,487	
				\$62,487.00
Subtotal Basic Services (1-8):				\$384,934.00
6	*Optional Additional Services including, but not limited to			
amounts shown are estimates and will be paid according to the Engineer's Rates, unless otherwise identified as Firm Fixed Fee				
	Proposed ROW Maps (1 Tracts @ \$ 10,000/Tract)		\$6,000.00	
	Detention Pond Design		\$20,211.00	
	Detention Pond Site Topo & Boundary (3 Acres, add'l Acre @ \$ 2,000)		\$6,000.00	
	Geotechnical Report (Detention Pond)		\$5,100.00	
				\$37,311.00
TOTAL SERVICES (BASIC & OPTIONAL ADDITIONAL)				\$422,245.00

Benton Road
From Rice Field to FM 2977 at Koebien



TASK DESCRIPTION	Sr. Project Manager	Sr. Engineer	Project Engineer	Engineering In-Training	Sr. Cadd Oper	Admin Asst. IV	TOTAL LABOR HRS. & COSTS
EXHIBITS/ATTACHMENTS FOR STUDY REPORT							
PUBLIC UTILITIES		2	2	4	4		\$ 1,680
PRIVATE UTILITIES		2	2	4	4		\$ 1,680
PROPOSED AND EXISTING TYPICAL SECTIONS (PRELIMINARY)	2	8	4	6	8		\$ 2,760
PLAN & PROFILE SHEETS (30%)	4	8	24	32	40		\$ 14,880
PROPOSED DRAINAGE / STORM SEWER		8	4	8	16		\$ 5,256
SITE TRIANGLES	2	6	8	4	4		\$ 3,972
COST ESTIMATES		2	10	4	10	1	\$ 3,717
MAJOR UTILITY TABLE		2	4	4		4	\$ 1,800
HOURS SUB-TOTALS	41	83	107	104	140	7	\$ 74,247
RAW SALARY	\$ 84.00	\$ 74.00	\$ 50.00	\$ 36.00	\$ 42.00	\$ 27.00	
CONTRACT RATE	\$ 252.00	\$ 222.00	\$ 150.00	\$ 108.00	\$ 126.00	\$ 81.00	
DIRECT LABOR COST	\$ 10,332.00	\$ 18,426.00	\$ 16,050.00	\$ 11,232.00	\$ 17,640.00	\$ 567.00	\$ 74,247
DIRECT EXPENSES							
MILEAGE @ \$0.56	200	miles	\$ 0.56				\$ 112
PRINTS 8 1/2" X 11"	500	sheets	\$ 0.10				\$ 50
PRINTS 11" X 17"	500	sheets	\$ 0.20				\$ 100
SUBTOTAL							\$ 262
PHASE I - Basic Services Total							\$ 74,509

Benton Road
From Rice Field to FM 2977 at Koeblen



TASK DESCRIPTION	Sr. Project Manager	Drainage Sr. Engineer	Drainage Project Engineer	Engineering In-Training	Sr. Cadd Oper	Admin Asst. IV	TOTAL LABOR HRS. & COSTS
PHASE I DRAINAGE REPORT							
DRAINAGE IMPACT STUDY							
DATA COLLECTION & SITE VISITS							
DOCUMENT COLLECTION AND REVIEW	1	3	4	4	4		\$ 2,522
FIELD VISIT	4	4					\$ 1,938
REVIEW SURVEY DATA	1	1	4	6			\$ 1,769
HYDROLOGIC ANALYSIS							
DRAINAGE AREAS	2	4	6	12	8		\$ 4,692
HYDROLOGIC PARAMETERS	1	4	8	16	2		\$ 4,434
RUNOFF HYDROGRAPHS	1	4	12	20	2		\$ 5,502
EXISTING SWMM ANALYSIS							
EXISTING SWMM MODEL SET UP	1	6	10	14	8		\$ 5,757
HYDRAULIC ANALYSIS	1	6	8	13	8		\$ 5,331
ANALYZE EXISTING 2YR, 10YR, 100YR	1	2	6	8			\$ 2,535
PROPOSED SWMM ANALYSIS							
MODEL PROPOSED IMPROVEMENTS	1	6	8	12	12		\$ 5,727
PROPOSED HYDRAULIC ANALYSIS	1	4	8	12	4		\$ 4,254
DOWNSTREAM IMPACT EVALUATION & MITIGATION	1	4	10	14			\$ 4,284
ANALYZE PROPOSED 2 YR, 10YR, 100YR	1	2	6	8			\$ 2,535
REPORT							
REPORT WRITE-UP	2	6	6	10			\$ 3,933
TABLES, EXHIBITS & APPENDICES	1	2	4	8	16		\$ 4,395
ADDRESS COMMENTS FROM DD6							
ADDRESS COMMENTS FROM DD6	1	2	5	8	4		\$ 2,880
HOURS SUB-TOTALS	21	60	105	165	68	2	\$ 62,488
RAW SALARY	\$ 84.00	\$ 77.50	\$ 53.00	\$ 36.00	\$ 42.00	\$ 27.00	
CONTRACT RATE	\$ 252.00	\$ 232.50	\$ 159.00	\$ 108.00	\$ 126.00	\$ 81.00	
DIRECT LABOR COST	\$ 5,292.00	\$ 13,950.00	\$ 16,695.00	\$ 17,820.00	\$ 8,568.00	\$ 162.00	\$ 62,487
PHASE I - DRAINAGE REPORT Total							\$ 62,487

Benton Road
From Rice Field to FM 2977 at Koeblen



TASK DESCRIPTION	Sr. Project Manager	Sr. Engineer	Project Engineer	Engineering In Training	Sr. Cadd Oper	Admin Asst. IV	TOTAL LABOR HRS. & COSTS
PHASE II FINAL DESIGN (BASIC SERVICES)							
PLAN SHEETS							
COVER SHEET		1	2		4		\$ 1,026
INDEX SHEET		1	2		4		\$ 1,026
PROJECT LAYOUT SHEET	1		2		8		\$ 1,560
GENERAL NOTES SHEET(S)	4	4	4		4		\$ 3,000
PROPOSED AND EXISTING TYPICAL SECTIONS	1	4	12	8	16		\$ 5,820
PLAN & PROFILE SHEETS	6	16	40	56	80		\$ 27,192
DRAINAGE AREA MAPS (EXIST & PROP)		12	16	8	32		\$ 9,960
HYDRAULIC DATA SHEETS		8	10	8	24		\$ 7,164
CROSS SECTION SHEETS	1	2	16	12	50		\$ 10,692
EARTHWORK CALCULATIONS	2	2	16	12	40		\$ 9,684
TRAFFIC CONTROL PLAN	2		2	4	12		\$ 2,748
SIGNING AND PAVEMENT MARKING LAYOUT	1	2	8	4	12		\$ 3,840
BRIDGE CLASS CULVERT LAYOUT SHEETS (2 LOCATIONS)	4	12	12	8	48		\$ 12,384
SW&P		2		8	16		\$ 3,924
DETAILS							
ROADWAY DETAILS	1	4	6	6	12		\$ 4,200
DRAINAGE DETAILS	1	4	4	2	12		\$ 3,468
EXCAVATION, BEDDING, BACKFILL & PAVEMENT REPAIR DETAILS		2	2	2	8		\$ 1,968
SAFETY END TREATMENT DETAILS		2	2	4	12		\$ 2,688
SW&P DETAILS		2	2	8	8		\$ 2,616
STANDARD PAVEMENT MARKING DETAILS		2	2	2	8		\$ 1,968



Total Design Phase

Benton Road
From Rice Field to FM 2977 at Koeblen

TASK DESCRIPTION	Sr. Project Manager	Drainage Sr. Engineer	Drainage Project Engineer	Engineering In-Training	Sr. Cadd Oper	Admin Asst. IV	TOTAL LABOR HRS. & COSTS
PHASE II DETENTION POND DESIGN							
PLAN SHEETS							
GENERAL NOTES SHEET (ADDITIONAL CONSTRUCTION NOTES FOR DETENTION POND)		1	2		1		\$ 677
DETENTION POND LAYOUT - PLAN VIEW (ALIGNMENT, ELEVATIONS, SIDE & FLOWLINE SLOPES, BOTTOM, DETENTION DATA SUMMARY)		2	8	8	12		\$ 4,113
DETENTION POND LAYOUT - PROFILES (INFLOW CULVERT, OUTFALL CULVERT)		2	4	12	12		\$ 3,909
CROSS SECTION SHEETS (2 SHEETS) (EXIST & PROPOSED CROSS SECTIONS, CUT AND FILL)		1	2	8	4		\$ 1,919
EXCAVATION EARTHWORK CALCULATIONS (CUT AND FILL QUANTITY ALONG STATION)		1	2	4	2		\$ 1,235
SWAP - FOR DETENTION POND		1	2	4	4		\$ 1,487
DETAILS							
BACKSIDE SWALE INTERCEPTOR DETAILED SECTIONS	1	4	2		8		\$ 2,508
OUTFALL DETAILS (3 SHEETS) (FLOATABLE COLLECTION SCREEN, RIPRAP, HEADWALL)	2	6	6		12		\$ 4,365
HOURS SUB-TOTALS	3	18	28	36	55		
RAW SALARY	\$ 84.00	\$ 77.50	\$ 53.00	\$ 36.00	\$ 42.00	\$ 27.00	
CONTRACT RATE	\$ 252.00	\$ 232.50	\$ 159.00	\$ 108.00	\$ 126.00	\$ 81.00	
DIRECT LABOR COST	\$ 756.00	\$ 4,185.00	\$ 4,452.00	\$ 3,888.00	\$ 6,930.00	\$ -	\$ 20,211
Total Design Phase							\$ 20,211
PHASE II - DETENTION POND DESIGN Total							\$ 20,211

March 12, 2021



Entech Civil Engineers, Inc.
15021 Katy Freeway, Suite 500
Houston, Texas 77094

Attn: Mr. Chris Orosco, P.E. – Senior Project Manager

Re: Cost Estimate for Geotechnical Engineering Services
Benton Road Extension
Fort Bend County, Texas
Terracon Document No. P92215106

Dear Mr. Orosco:

Terracon Consultants, Inc. (Terracon) understands that we have been selected based on qualifications to provide geotechnical services for the above referenced project. This document outlines our understanding of the scope of services to be performed by Terracon for this project and provides an estimate of the cost of our services. The following are exhibits to the attached Agreement for Services.

Exhibit A	Project Understanding
Exhibit B	Scope of Services
Exhibit C	Compensation and Project Schedule
Exhibit D	Site Location
Exhibit E	Anticipated Exploration Plan

Our base fee to perform the Scope of Services described in this document for the proposed roadway is **\$9,500** and the proposed detention pond is **\$5,100**. See **Exhibit C** for more details of our fees and consideration of additional services.

Your authorization for Terracon to proceed in accordance with this cost estimate can be issued by signing and returning a copy of the attached Agreement for Services to our office. If you have any questions, please do not hesitate to contact us.

Cost Estimate for Geotechnical Engineering Services
Benton Road Extension ■ Fort Bend County, Texas
March 12, 2021 ■ Terracon Document No. P92215106



Sincerely,

Terracon Consultants, Inc.

(Texas Firm Registration No.: F-3272)

Anu George, Ph.D., E.I.T.
Staff Geotechnical Engineer

For: Rebecca L. Cummins, P.E.
Project Engineer

Patrick M. Beecher, P.E.
Geotechnical Services Manager

AGREEMENT FOR SERVICES

This **AGREEMENT** is between Entech Civil Engineers, Inc. ("Client") and Terracon Consultants, Inc. ("Consultant") for Services to be provided by Consultant for Client on the Benton Road Extension project ("Project"), as described in Consultant's Proposal dated 03/12/2021 ("Proposal"), including but not limited to the Project Information section, unless the Project is otherwise described in Exhibit A to this Agreement (which section or Exhibit is incorporated into this Agreement).

- 1. Scope of Services.** The scope of Consultant's services is described in the Proposal, including but not limited to the Scope of Services section ("Services"), unless Services are otherwise described in Exhibit B to this Agreement (which section or exhibit is incorporated into this Agreement). Portions of the Services may be subcontracted. When Consultant subcontracts to other individuals or companies, then consultant will collect from Client on the Subcontractors' behalf. Consultant's Services do not include the investigation or detection of, nor do recommendations in Consultant's reports address the presence or prevention of biological pollutants (e.g., mold, fungi, bacteria, viruses, or their byproducts) or occupant safety issues, such as vulnerability to natural disasters, terrorism, or violence. If Services include purchase of software, Client will execute a separate software license agreement. Consultant's findings, opinions, and recommendations are based solely upon data and information obtained by and furnished to Consultant at the time of the Services.
- 2. Acceptance/ Termination.** Client agrees that execution of this Agreement is a material element of the consideration Consultant requires to execute the Services, and if Services are initiated by Consultant prior to execution of this Agreement as an accommodation for Client at Client's request, both parties shall consider that commencement of Services constitutes formal acceptance of all terms and conditions of this Agreement. Additional terms and conditions may be added or changed only by written amendment to this Agreement signed by both parties. In the event Client uses a purchase order or other form to administer this Agreement, the use of such form shall be for convenience purposes only and any additional or conflicting terms it contains are stricken. This Agreement shall not be assigned by either party without prior written consent of the other party. Either party may terminate this Agreement or the Services upon written notice to the other. In such case, Consultant shall be paid costs incurred and fees earned to the date of termination plus reasonable costs of closing the Project.
- 3. Change Orders.** Client may request changes to the scope of Services by altering or adding to the Services to be performed. If Client so requests, Consultant will return to Client a statement (or supplemental proposal) of the change setting forth an adjustment to the Services and fees for the requested changes. Following Client's review, Client shall provide written acceptance. If Client does not follow these procedures, but instead directs, authorizes, or permits Consultant to perform changed or additional work, the Services are changed accordingly and Consultant will be paid for this work according to the fees stated or its current fee schedule. If project conditions change materially from those observed at the site or described to Consultant at the time of proposal, Consultant is entitled to a change order equitably adjusting its Services and fee.
- 4. Compensation and Terms of Payment.** Client shall pay compensation for the Services performed at the fees stated in the Proposal, including but not limited to the Compensation section, unless fees are otherwise stated in Exhibit C to this Agreement (which section or Exhibit is incorporated into this Agreement). If not stated in either, fees will be according to Consultant's current fee schedule. Fee schedules are valid for the calendar year in which they are issued. Fees do not include sales tax. Client will pay applicable sales tax as required by law. Consultant may invoice Client at least monthly and payment is due upon receipt of invoice. Client shall notify Consultant in writing, at the address below, within 15 days of the date of the invoice if Client objects to any portion of the charges on the invoice, and shall promptly pay the undisputed portion. Client shall pay a finance fee of 1.5% per month, but not exceeding the maximum rate allowed by law, for all unpaid amounts 30 days or older. Client agrees to pay all collection-related costs that Consultant incurs, including attorney fees. Consultant may suspend Services for lack of timely payment. It is the responsibility of Client to determine whether federal, state, or local prevailing wage requirements apply and to notify Consultant if prevailing wages apply. If it is later determined that prevailing wages apply, and Consultant was not previously notified by Client, Client agrees to pay the prevailing wage from that point forward, as well as a retroactive payment adjustment to bring previously paid amounts in line with prevailing wages. Client also agrees to defend, indemnify, and hold harmless Consultant from any alleged violations made by any governmental agency regulating prevailing wage activity for failing to pay prevailing wages, including the payment of any fines or penalties.
- 5. Third Party Reliance.** This Agreement and the Services provided are for Consultant and Client's sole benefit and exclusive use with no third party beneficiaries intended. Reliance upon the Services and any work product is limited to Client, and is not intended for third parties other than those who have executed Consultant's reliance agreement, subject to the prior approval of Consultant and Client.
- 6. LIMITATION OF LIABILITY.** CLIENT AND CONSULTANT HAVE EVALUATED THE RISKS AND REWARDS ASSOCIATED WITH THIS PROJECT, INCLUDING CONSULTANT'S FEE RELATIVE TO THE RISKS ASSUMED, AND AGREE TO ALLOCATE CERTAIN OF THE ASSOCIATED RISKS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF CONSULTANT (AND ITS RELATED CORPORATIONS AND EMPLOYEES) TO CLIENT AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE GREATER OF \$50,000 OR CONSULTANT'S FEE, FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF CONSULTANT'S SERVICES OR THIS AGREEMENT. PRIOR TO ACCEPTANCE OF THIS AGREEMENT AND UPON WRITTEN REQUEST FROM CLIENT, CONSULTANT MAY NEGOTIATE A HIGHER LIMITATION FOR ADDITIONAL CONSIDERATION IN THE FORM OF A SURCHARGE TO BE ADDED TO THE AMOUNT STATED IN THE COMPENSATION SECTION OF THE PROPOSAL. THIS LIMITATION SHALL APPLY REGARDLESS OF AVAILABLE PROFESSIONAL LIABILITY INSURANCE COVERAGE, CAUSE(S), OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY. THIS LIMITATION SHALL NOT APPLY TO THE EXTENT THE DAMAGE IS PAID UNDER CONSULTANT'S COMMERCIAL GENERAL LIABILITY POLICY.
- 7. Indemnity/Statute of Limitations.** Consultant and Client shall indemnify and hold harmless the other and their respective employees from and against legal liability for claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are legally determined to be caused by their negligent acts, errors, or omissions. In the event such claims, losses, damages, or expenses are legally determined to be caused by the joint or concurrent negligence of Consultant and Client, they shall be borne by each party in proportion to its own negligence under comparative fault principles. Neither party shall have a duty to defend the other party, and no duty to defend is hereby created by this indemnity provision and such duty is explicitly waived under this Agreement. Causes of action arising out of Consultant's Services or this Agreement regardless of cause(s) or the theory of liability, including negligence, indemnity or other recovery shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of Consultant's substantial completion of Services on the project.
- 8. Warranty.** Consultant will perform the Services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. **EXCEPT FOR THE STANDARD OF CARE PREVIOUSLY STATED, CONSULTANT MAKES NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, RELATING TO CONSULTANT'S SERVICES AND CONSULTANT DISCLAIMS ANY IMPLIED WARRANTIES OR WARRANTIES IMPOSED BY LAW, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**
- 9. Insurance.** Consultant represents that it now carries, and will continue to carry: (i) workers' compensation insurance in accordance with the laws of the states having jurisdiction over Consultant's employees who are engaged in the Services, and employer's liability insurance (\$1,000,000); (ii) commercial general liability insurance (\$1,000,000 occ / \$2,000,000 agg); (iii) automobile liability insurance (\$1,000,000 B.I. and P.D. combined single

limit); and (iv) professional liability insurance (\$1,000,000 claim / agg). Certificates of insurance will be provided upon request. Client and Consultant shall waive subrogation against the other party on all general liability and property coverage.

- 10. CONSEQUENTIAL DAMAGES. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR LOSS OF PROFITS OR REVENUE; LOSS OF USE OR OPPORTUNITY; LOSS OF GOOD WILL; COST OF SUBSTITUTE FACILITIES, GOODS, OR SERVICES; COST OF CAPITAL; OR FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES.**
- 11. Dispute Resolution.** Client shall not be entitled to assert a Claim against Consultant based on any theory of professional negligence unless and until Client has obtained the written opinion from a registered, independent, and reputable engineer, architect, or geologist that Consultant has violated the standard of care applicable to Consultant's performance of the Services. Client shall provide this opinion to Consultant and the parties shall endeavor to resolve the dispute within 30 days, after which Client may pursue its remedies at law. This Agreement shall be governed by and construed according to Texas law.
- 12. Subsurface Explorations.** Subsurface conditions throughout the site may vary from those depicted on logs of discrete borings, test pits, or other exploratory services. Client understands Consultant's layout of boring and test locations is approximate and that Consultant may deviate a reasonable distance from those locations. Consultant will take reasonable precautions to reduce damage to the site when performing Services; however, Client accepts that invasive services such as drilling or sampling may damage or alter the site. Site restoration is not provided unless specifically included in the Services.
- 13. Testing and Observations.** Client understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. Consultant will provide test results and opinions based on tests and field observations only for the work tested. Client understands that testing and observation are not continuous or exhaustive, and are conducted to reduce - not eliminate - project risk. Client shall cause all tests and inspections of the site, materials, and Services performed by Consultant to be timely and properly scheduled in order for the Services to be performed in accordance with the plans, specifications, contract documents, and Consultant's recommendations. No claims for loss or damage or injury shall be brought against Consultant by Client or any third party unless all tests and inspections have been so performed and Consultant's recommendations have been followed. Unless otherwise stated in the Proposal, Client assumes sole responsibility for determining whether the quantity and the nature of Services ordered by Client is adequate and sufficient for Client's intended purpose. Client is responsible (even if delegated to contractor) for requesting services, and notifying and scheduling Consultant so Consultant can perform these Services. Consultant is not responsible for damages caused by Services not performed due to a failure to request or schedule Consultant's Services. Consultant shall not be responsible for the quality and completeness of Client's contractor's work or their adherence to the project documents, and Consultant's performance of testing and observation services shall not relieve Client's contractor in any way from its responsibility for defects discovered in its work, or create a warranty or guarantee. Consultant will not supervise or direct the work performed by Client's contractor or its subcontractors and is not responsible for their means and methods. The extension of unit prices with quantities to establish a total estimated cost does not guarantee a maximum cost to complete the Services. The quantities, when given, are estimates based on contract documents and schedules made available at the time of the Proposal. Since schedule, performance, production, and charges are directed and/or controlled by others, any quantity extensions must be considered as estimated and not a guarantee of maximum cost.
- 14. Sample Disposition, Affected Materials, and Indemnity.** Samples are consumed in testing or disposed of upon completion of the testing procedures (unless stated otherwise in the Services). Client shall furnish or cause to be furnished to Consultant all documents and information known or available to Client that relate to the identity, location, quantity, nature, or characteristic of any hazardous waste, toxic, radioactive, or contaminated materials ("Affected Materials") at or near the site, and shall immediately transmit new, updated, or revised information as it becomes available. Client agrees that Consultant is not responsible for the disposition of Affected Materials unless specifically provided in the Services, and that Client is responsible for directing such disposition. In no event shall Consultant be required to sign a hazardous waste manifest or take title to any Affected Materials. Client shall have the obligation to make all spill or release notifications to appropriate governmental agencies. The Client agrees that Consultant neither created nor contributed to the creation or existence of any Affected Materials conditions at the site and Consultant shall not be responsible for any claims, losses, or damages allegedly arising out of Consultant's performance of Services hereunder, or for any claims against Consultant as a generator, disposer, or arranger of Affected Materials under federal, state, or local law or ordinance.
- 15. Ownership of Documents.** Work product, such as reports, logs, data, notes, or calculations, prepared by Consultant shall remain Consultant's property. Proprietary concepts, systems, and ideas developed during performance of the Services shall remain the sole property of Consultant. Files shall be maintained in general accordance with Consultant's document retention policies and practices.
- 16. Utilities.** Unless otherwise stated in the Proposal, Client shall provide the location and/or arrange for the marking of private utilities and subterranean structures. Consultant shall take reasonable precautions to avoid damage or injury to subterranean structures or utilities. Consultant shall not be responsible for damage to subterranean structures or utilities that are not called to Consultant's attention, are not correctly marked, including by a utility locate service, or are incorrectly shown on the plans furnished to Consultant.
- 17. Site Access and Safety.** Client shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the Services and will execute any necessary site access agreement. Consultant will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any other parties, including Client, Client's contractors, subcontractors, or other parties present at the site. In addition, Consultant retains the right to stop work without penalty at any time Consultant believes it is in the best interests of Consultant's employees or subcontractors to do so in order to reduce the risk of exposure to the coronavirus. Client agrees it will respond quickly to all requests for information made by Consultant related to Consultant's pre-task planning and risk assessment processes. Client acknowledges its responsibility for notifying Consultant of any circumstances that present a risk of exposure to the coronavirus or individuals who have tested positive for COVID-19 or are self-quarantining due to exhibiting symptoms associated with the coronavirus.

Consultant: **Terracon Consultants, Inc.**
 By: _____ Date: **3/12/2021**
 Name/Title: **Patrick M. Beecher, P.E. / Senior Principal / Geotechnical Services Manager**
 Address: **11555 Clay Rd, Ste 100**
Houston, TX 77043-1239
 Phone: **(713) 690-8989** Fax: **(713) 690-8787**
 Email: **Patrick.Beecher@terracon.com**

Client: **Entech Civil Engineers, Inc.**
 By: _____ Date: _____
 Name/Title: _____
 Address: _____
 Phone: _____ Fax: _____
 Email: _____

EXHIBIT A - PROJECT UNDERSTANDING

Our Scope of Services is based on our understanding of the project as described by Entech Civil Engineers, Inc. (Entech). We have not visited the project site to confirm the information provided. Aspects of the project, undefined or assumed, are highlighted as shown below. We request the design team verify all information prior to our initiation of field exploration activities.

Site Location

Item	Description
Project location	The project site begins at the intersection of Benton Road and Ricefield Road and extends approximately 4,400 feet southwest toward the future Koeblen Road in Fort Bend County, Texas.
Existing improvements	Based on the aerial images, the site appears to be vacant at the time of this cost estimate.
Current ground cover	Grass, weeds, and exposed subgrade.
Existing topography	Relatively level.
Site access	We expect the site and exploration locations are accessible with our all-terrain vehicle (ATV) mounted drilling equipment during normal business hours.

Planned Construction

Item	Description
Project description	The project includes the extension of Benton Road from its intersection with Ricefield Road to the future Koeblen Road. We understand that a new detention pond is planned to be constructed for this project.

Item	Description
Proposed improvements ¹	<u>Roadway</u> - Based on the information obtained from Entech and Fort Bend County, we understand that approximately 4,400 linear feet of two-lane (12 feet wide) flexible pavement section with 6-foot shoulders is planned. We understand that minor grade changes (less than 2 feet) are planned along the roadways to facilitate positive drainage. - We understand that three cross culverts are planned to be placed along the roadway alignment. The exact location and size of the cross culverts has not been determined at the time of this cost estimate. The cross culverts are anticipated to extend to a maximum depth of 5 feet below the final grade of roadway extension. We assume cross culverts will be installed using open-cut methods.
	<u>Detention Pond</u> We understand that a new detention pond is planned near the proposed roadway. The exact location and size of the detention pond has not been determined at the time of this cost estimate. The size of the proposed detention pond is assumed to be 2 acres with a maximum depth of 10 feet and sideslopes no steeper than 3(Horizontal):1(Vertical).
Anticipated traffic loads (assumed)	Local roadways with residential traffic consisting of passenger vehicles, delivery and garbage trucks, and school buses.
^{1.} Based on the information provided by Entech.	

EXHIBIT B - SCOPE OF SERVICES

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. These services are described in the following sections.

Field Exploration

The field exploration program consists of the following:

Planned Location	Number of Borings	Planned Boring Depth ¹ (feet)
Proposed Benton Road and Cross Culverts	10 (B-1 through B-10)	10
Proposed Detention Pond ²	2	20
Total	12	140

1. Below grade at the time of our field program.

2. The location of the proposed detention pond is not available at the time of this cost estimate. The number of borings for the proposed detention pond is based on an assumed pond size of 2 acres.

Boring Layout and Elevations: We will use handheld GPS equipment to locate borings with an estimated horizontal accuracy of +/-25 feet. Field measurements from existing site features may be utilized. If available, approximate elevations will be obtained by interpolation from a site specific, surveyed topographic map.

Subsurface Exploration Procedures: We will advance soil borings with an ATV mounted drill rig using solid stem continuous flight augers. Samples will be obtained continuously in the upper 15 feet of each boring and at intervals of 5 feet thereafter. Borings will be extended to a minimum of 5 feet beyond the termination depth, if any water producing sand layer is encountered at the termination depth. Soil sampling is performed using open-tube and/or split-barrel sampling procedures. The split-barrel samplers are driven in accordance with the standard penetration test (SPT). The samples will be placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer. In addition, we will observe and record groundwater levels during drilling and sampling and for the borings associated with the new detention pond, one day after boring completion.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs include visual classifications of materials observed during drilling, and our interpretation of subsurface conditions between samples. Final boring logs, prepared from field logs, represent the Geotechnical Engineer's interpretation, and include modifications based on observations and laboratory tests.

Property Disturbance: We will backfill borings with auger cuttings upon completion. Our services do not include repair of the site beyond backfilling our boreholes. Excess auger cuttings will be dispersed in the general vicinity of the borehole. Because backfill material often settles below the surface after a period, we recommend boreholes to be periodically checked and backfilled, if necessary. We can provide this service, or grout the boreholes for additional fees, at your request.

Site Access: Terracon must be granted access by site owners and Fort Bend County. By acceptance of this cost estimate, without information to the contrary, we consider this as authorization to access the area of the proposed road alignment for conducting field exploration in accordance with the Scope of Services.

Safety

Terracon is not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our Scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. If additional safety requirements, training, etc. are required to access this site to perform our services, Terracon should be notified so that we may adjust our Scope of Services and estimated fees, if necessary. Our Scope of Services does not include environmental site assessment services, but identification of unusual or unnatural materials encountered while drilling will be noted on our logs and discussed in our report.

Exploration efforts require borings (and possibly excavations) into the subsurface, therefore Terracon will comply with Texas 811, a free utility locating service, to help locate public utilities within dedicated public easements. We will consult with the owner/client regarding potential utilities, or other unmarked underground hazards. Based upon the results of this consultation, we will consider the need for alternative subsurface exploration methods, as the safety of our field crew is a priority.

Consultant will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any third parties, including Client's contractors, subcontractors, or other parties present at the site. In addition, Consultant retains the right to stop work without penalty at any time Consultant believes it is in the best interests of Consultant's employees or subcontractors to do so in order to reduce the risk of exposure to COVID-19. Client agrees it will respond quickly to all requests for information made by Consultant related to Consultant's pre-task planning and risk assessment processes. Client acknowledges its responsibility for notifying Consultant of any circumstances that present a risk of exposure to the coronavirus or individuals who have tested positive for COVID-19 or are self-quarantining due to exhibiting symptoms associated with COVID-19.

Laboratory Testing

The project engineer will review field data and assign laboratory tests to understand the engineering properties of various soil strata. The anticipated laboratory testing may include the following:

- Moisture content
- Dry unit weight
- Atterberg Limits
- Percent finer than No. 200 sieve
- Unconfined compressive strength
- Consolidated undrained triaxial test
- Grain size distribution: Sieve and hydrometer
- Crumb test
- Double hydrometer

Our laboratory testing program includes examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we will describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

Engineering and Project Delivery

Results of our field and laboratory programs will be evaluated by a professional engineer. The engineer will develop a geotechnical site characterization, perform the engineering calculations necessary to evaluate foundation alternatives, and develop appropriate geotechnical engineering design criteria for earth-related phases of the project.

Your project will be delivered using our **GeoReport®** system. Upon initiation, we provide you and your design team the necessary link and password to access the website (if not previously registered). Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. The typical delivery process includes the following:

- Project Planning – Proposal information, schedule and anticipated exploration plan will be posted for review and verification
- Site Characterization – Findings of the site exploration
- Geotechnical Engineering – Recommendations and geotechnical engineering report

When utilized, our collaboration portal documents communication, eliminating the need for long email threads. This collaborative effort allows prompt evaluation and discussion of options related to the design and associated benefits and risks of each option. With the ability to inform all parties as the work progresses, decisions and consensus can be reached faster. In some cases, only minimal uploads and collaboration will be required, because options for design and construction

Cost Estimate for Geotechnical Engineering Services

Benton Road Extension ■ Fort Bend County, Texas

March 12, 2021 ■ Terracon Document No. P92215106



are limited or unnecessary. This is typically the case for uncomplicated projects with no anomalies found at the site.

When services are complete, we upload a printable version of our completed geotechnical engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

The geotechnical engineering report will provide the following:

- Boring logs with field and laboratory data
- Stratification based on visual soil classification
- Groundwater levels observed during drilling and sampling
- Site and boring location plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Temporary groundwater control and excavation considerations
- Bedding and backfill recommendations
- Allowable bearing pressure for culverts
- Detention pond construction considerations
- Global stability analysis for pond slopes (one cross-section) under short-term, long-term, and rapid drawdown conditions
- General discussion on slope protection and erosion control for the detention pond
- Subgrade preparation/earthwork recommendations
- Design guidelines for flexible pavements

EXHIBIT C - COMPENSATION AND PROJECT SCHEDULE

Compensation

Based upon our understanding of the site, the project as summarized in **Exhibit A**, and our planned Scope of Services outlined in **Exhibit B**, our base fee is shown in the following table:

Task	Lump Sum Fee
Proposed Roadway	
Subsurface Exploration ¹	\$4,750
Laboratory Testing	\$1,950
Geotechnical Consulting & Reporting ²	\$2,800
Total Fee for Proposed Roadway Recommendations	\$9,500
Proposed Detention Pond	
Subsurface Exploration ¹	\$2,000
Laboratory Testing	\$2,100
Geotechnical Consulting & Reporting ^{2,3}	\$1,000
Total Fee for Proposed Detention Pond Recommendations	\$5,100

1. We assumed separate mobilizations to the site to complete roadway and pond borings.
2. We assumed recommendations for roadway and pond will be included in one geotechnical engineering report.
3. Based on the discussion with Entech, we understand that the requested pond recommendations are not based on Harris County Flood Control District (HCFCD) guidelines in the current scope of work. If there is any change in the current scope, Terracon should be contacted to revise our scope of services.

Additional services not part of the base fee include the following:

Additional Services	Fee/Boring	Initial for Authorization
Additional Footage Fee ¹	\$90	

1. Borings with water producing sand layer encountered at the termination depth will be extended to a minimum of 5 feet beyond the termination depth based on Fort Bend County guidelines. An additional fee of \$90/boring (includes field and laboratory testing for additional footage) will be added to the current base fee for each boring with water producing sand layer at the termination depth.

Our Scope of Services does not include services associated with survey of boring locations, special equipment for wet/soft ground conditions, tree or shrub clearing, or repair of/damage to the existing landscape. If such services are desired by the owner/client, we should be notified so we can adjust our Scope of Services.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this proposal. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental

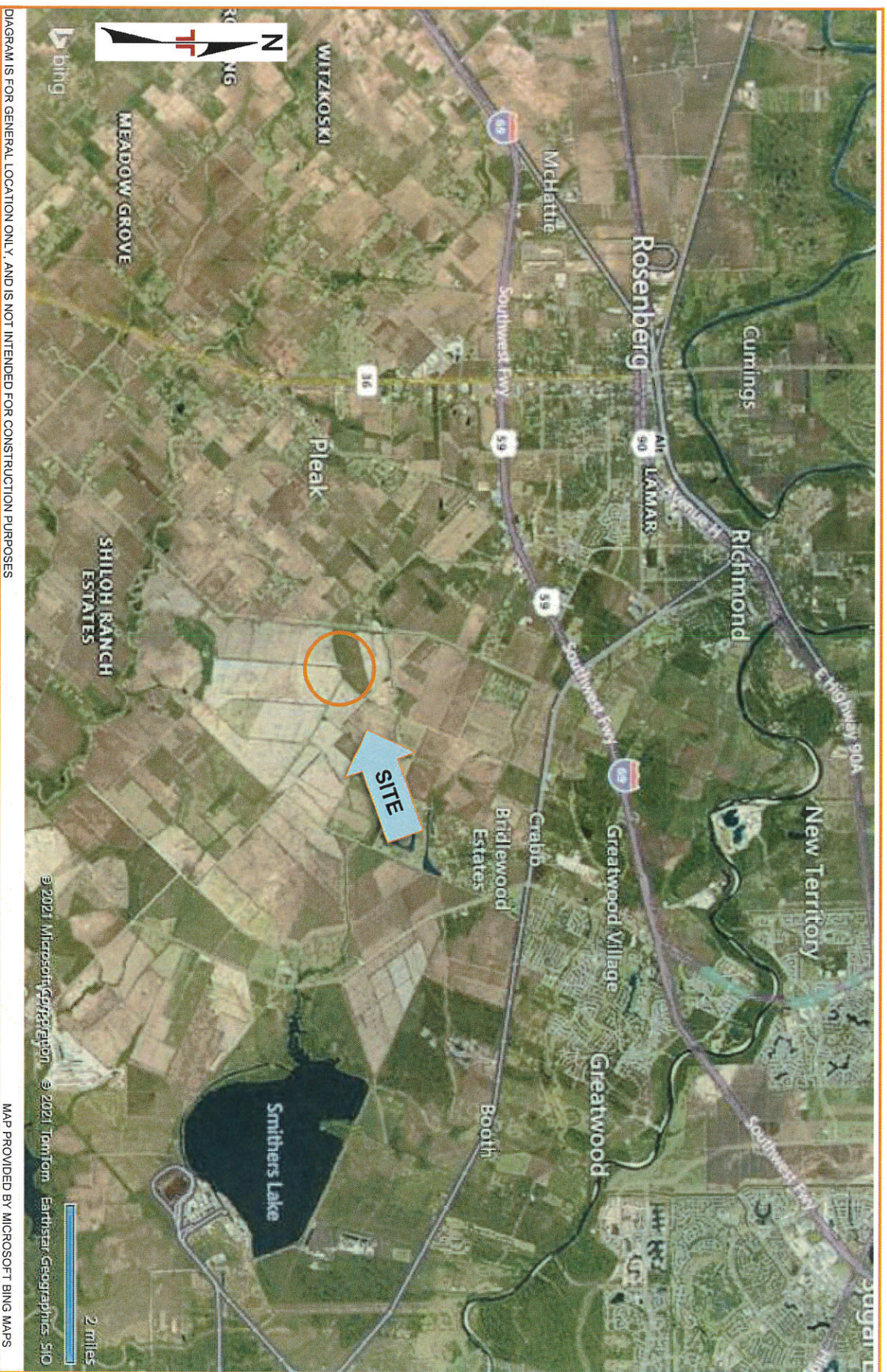
proposal stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization.

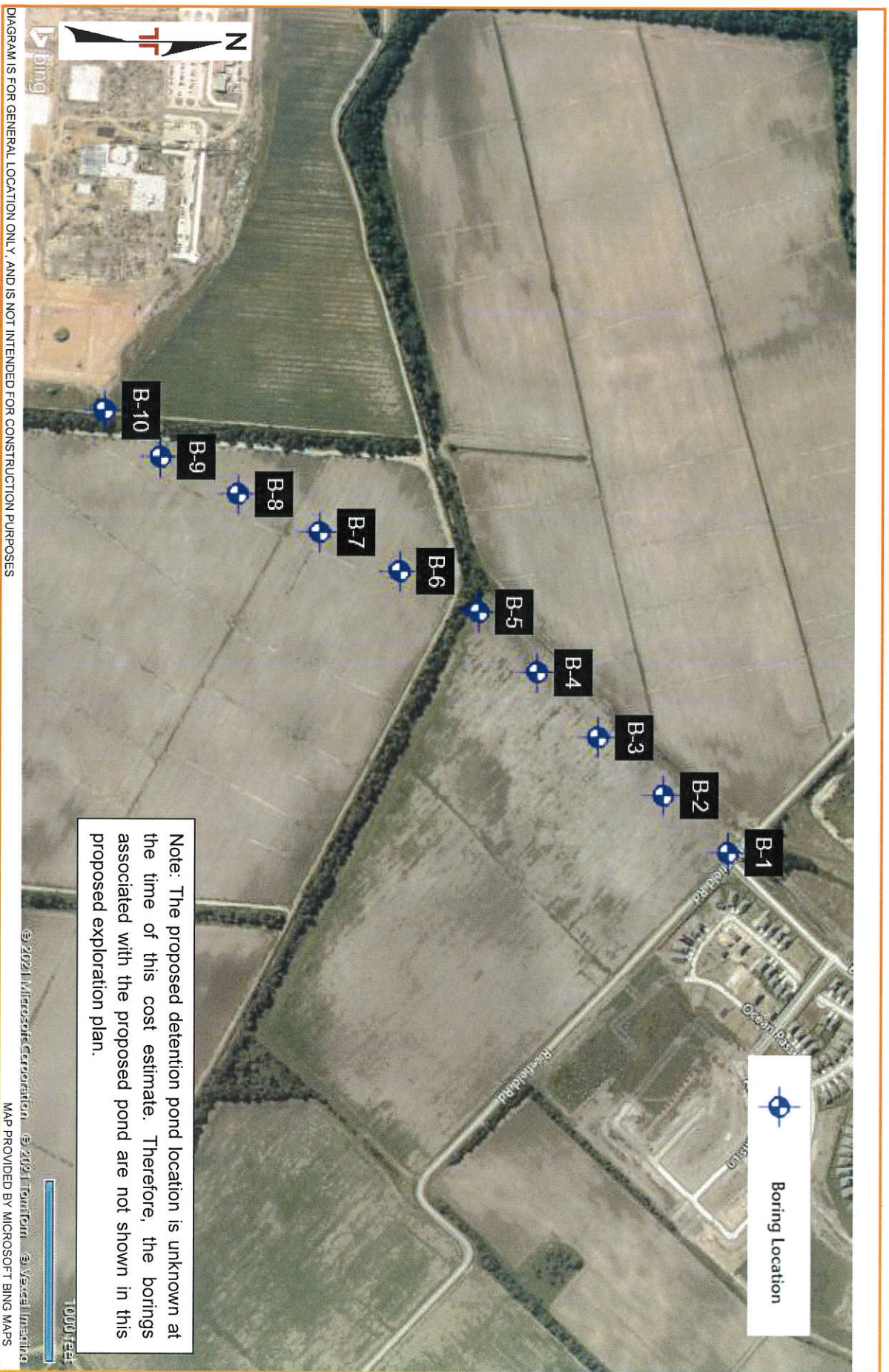
Project Schedule

We developed a schedule to complete the Scope of Services based upon our existing availability and understanding of your project schedule. However, this does not account for delays in field exploration beyond our control, such as weather conditions, permit delays, or lack of permission to access the boring locations. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

GeoReport® Delivery	Posting Schedule ^{1, 2}
Project Planning	5 working days from notice to proceed
Field Work Mobilization	12 to 15 working days from notice to proceed
Site Characterization	10 working days from completion of field program
Draft Geotechnical Engineering Report	25 working days from completion of field program
Final Geotechnical Engineering Report	10 working days from receipt of comments on the draft report

1. Upon receipt of your notice to proceed we will activate the schedule component of our **GeoReport®** website with specific, anticipated calendar days for the three delivery points noted above as well as other pertinent events such as field exploration crews on-site, etc.
2. We will maintain a current calendar of activities within our **GeoReport®** website. In the event of a need to modify the schedule, the schedule will be updated to maintain a current awareness of our plans for delivery.







TSC Surveying
"A GeoSurv, Inc. Company"

GeoSurv, Inc. d/b/a TSC Surveying

TBPLS Firm No. 10083100

May 4, 2021

Chris Orosco, P.E.
Sr. Project Manager
Entech Civil Engineers, Inc.
15021 Katy Freeway, Suite 500
Houston, Texas 77094

Re: Fort Bend County Mobility Bond Project
Benton Road Connection
From Rice Field Road to Koeblen Road Extension
Project No. 20108

Dear Mr. Orosco:

GeoSurv, Inc. dba TSC Surveying (TSC) is pleased to submit to Entech Civil Engineers, Inc. (ECE) (Client) the following proposal for performing professional surveying services on the captioned project, more particularly, Topographic Surveying, Level C&D Subsurface Utility Surveying (Texas811) and Proposed Right of Way Acquisition. Proposed Right-of-Way (ROW) acquisition includes ROW survey of specific properties, property record research, preparation of parcel documents, and setting proposed ROW corners.

Project Overview and Scope

The project is part of the Fort Bend County's 2020 Mobility Bond Program (Project No. 20108). The project, for Fort Bend County (FBC) Precinct 1 (Owner), is for the Design Survey and ROW Acquisition and Mapping of the Benton Road Connection from Rice Field Road to the Koeblen Road Extension near the new LCISD High School under construction. **See Exhibit A** for the alignment.

Topographic Survey

Listed below are the tasks for the Topographic Survey (Topo):

1. Survey to be conducted in accordance with the latest **Ft Bend County Engineering Design Manual, Chapter 6, Survey** except as noted.
2. The survey datum control and the "initial" project baseline (alignment) utilized for the project will be provided by ECE per Exhibit A.
3. ECE will provide the project baseline alignment in CAD format. The alignment is assumed to 4900' in length

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4. TSC will provide a topographic survey that will extend 100 feet on each side of the “initial” project base line. The Topographic Survey will extend for full width of the “proposed” ROW (100’) of the Benton Extension plus 50’ on each side of the proposed ROW for a total width of 200’ based upon the “initial” project baseline.
5. ECE will provide to TSC the “final” project/construction baseline for inclusion in the topographic survey.
6. TSC will establish control for the project once.
7. TSC will stake once in the field the “final” project/construction baseline and Proposed ROW lines.
8. TSC will recover or reestablish control, baseline, and ROW lines as an additional service.
9. TSC will provide cross sections of the drainage ditches crossings (2 crossings) for 200’ in each direction beyond the proposed ROW per the “initial” project baseline. The cross sections will extend 20’ outside the top of bank or easement line.
10. The Topographic Survey will extend 200’ from the proposed Benton ROW at each intersecting street (Koeblen Road Extension and Rice Field Road). The cross sections will extend 20’ outside the approximate existing ROW.
11. Topographic Survey will be provided for the area of the proposed 3-acre detention pond. The pond is assumed to be adjacent to the proposed ROW for Benton Road and have no outfall extensions.
12. Twelve geotechnical bore holes will be located with (x, y, z) data in the field based upon information provided by the geotechnical firm.
13. TSC will make an 811 call and identify tone marks/ flagging in the field.
14. TSC will perform Levels C&D Subsurface utility Engineering/Location SUE (record research and Topo only).
15. TSC will obtain depth of drainage and sanitary manholes if access is available.
16. ECE will provide Record Drawings if available for Rice Field Road, Benton Road, Koeblen Road and New LCISD High School Site.
17. The approximate existing ROW and pipeline documentation/ownership will be determined by abstracting for the project limits.

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18. The approximate existing ROW developed from abstracting and field observations (corners/iron rods) will be shown on the topo drawings.
19. A Right of Entry (ROE) Letter will be prepared by TSC and will include the ECE Team for the one parcel (George Foundation).
20. It is assumed in this proposal that there will be two project meetings with ECE, project team, and FBC staff including site visits and field walks.

Proposed Right of Way (ROW) Documents

Listed below are the tasks for the proposed ROW Documents:

1. ROW Acquisition requirements will be conducted in accordance with the latest **Ft Bend County Engineering Design Manual, Chapter 7, Right-Of -Way** and the latest procedures and guidelines listed in the **Fort Bend County ROW Taking Area Digital Submittals Memorandum**.
2. It is anticipated that there will be one only parcel to be acquired and that will be from the George Foundation.

Not Included

1. Project and Utility profiles will not be prepared.
2. There are no UVE's planned.
3. The cutting of sheets is not included in this proposal.
4. No Construction Phases services are included in this proposal.
5. Expert witness or special documentation for property acquisition are not included in this proposal.
6. There will be no special displays prepared.
7. It is assumed that the George Foundation will have no objections to the proposed property acquisition.
8. Levels A & B level SUE are not included in this proposal but can be provided as additional services.

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From Rice Field Road to Koeblen Road Extension
Project No. 20108

Compensation

TSC proposes to complete the scope of work described in Topographic Survey and Proposed ROW Documents for a **Lump Sum Fee of \$74,400.00** without further modification to the scope of services. We will invoice based on the percentage (%) of work completed for the proposed services. A breakdown of the proposed fees are as follows:

Description	Lump Sum Fee
Topographic Survey—Benton Road Connection 4,900 LF X \$6.00/LF	\$ 29,400
Topographic Surveys –Intersecting Roads 1,000 LF X \$7.00/LF	\$7,000
Topographic Surveys – Drainage Channels 1,000 LF X \$7.00/LF	\$7,000
Topographic Surveys –Detention Ponds 3 AC. X \$2,000/ AC.	\$6,000
ROW Research (Abstracting)	\$ 3,000
Survey Control Maps	\$6,000
Existing ROW Maps	\$6,000
Parcel Maps (1 Large parcel) (Proposed ROW)	\$6,000
Staking the “Final” Project Baseline and Proposed ROW lines once	\$ 4,000
TOTAL LUMP SUM	\$74,400

Schedule

TSC will complete the work described in Topographic Survey within sixty (60) calendar days and receipt of the written Notice-to-Proceed (NTP) without further modification of the scope of services and pending any unforeseen circumstances (ROE issues, weather, work stoppage, etc.) that may delay the work schedule.

TSC will complete the work described in Proposed ROW Documents within sixty (60) calendar days and after receipt of the written Notice-to-Proceed (NTP) without further modification of the scope of services and pending any unforeseen circumstances (weather, work stoppage, etc.) that may delay the work schedule.

The schedule and fees for the Additional Services will be discussed with ECE at the time those tasks may be requested.

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Deliverables

The deliverables for the Topographic Survey Scope of Services will be as follows:

- MicroStation planimetric graphic files (2D & 3D) will be prepared for the plan view. The vertical accuracy for the topographic survey will be 2 inches (+/-).
- Survey points data file (ASCII).
- TIN/DTM files.
- Survey file will be prepared using surface coordinates with a conversion factor.
- Copies of field notes.
- Signed and sealed survey control map sheets.

The deliverables for the Proposed ROW Documents Services will be as follows:

- Proposed ROW Map(s)
- Parcel Map(s)

Again, I would like to thank you for this opportunity to submit this proposal and look forward to working with you on making this a successful project. If you have any questions, please call me at 713-784-4466

Sincerely,

A handwritten signature in blue ink that reads "Nelson B. Nuckles". The signature is fluid and cursive, with the first name "Nelson" and last name "Nuckles" clearly distinguishable.

Nelson B. Nuckles, P.E.
Chief Engineer



PROJECT:

BENTON ROAD &
KEOBLEN EXTENSION

PROJECT No. 20108

FROM: RICEFIELD RD
TO: KEOBLEN RD

LENGTH: 4,400 FT

DESCRIPTION:

EXTEND BENTON RD AS A
2 LANE ASPHALT W/ SHOULDERS
TO KEOBLEN RD INTERSECTION.

COORDINATION:

CITY OF THOMPSONS ETJ
GEORGE RANCH FOUNDATION

FIELD NOTES:

FORT BEND COUNTY
2020 MOBILITY BOND PROGRAM

