

## **ENGINEERING SERVICES AGREEMENT**

THIS AGREEMENT is made and entered into by and between the Fort Bend County Toll Road Authority, a transportation corporation organized and operating under the laws of the State of Texas, hereinafter called the "FBCTRA" and Earth Engineering, Inc., hereinafter called "Engineer."

### WITNESSETH

WHEREAS, the FBCTRA proposes to perform geotechnical exploration along the Fort Bend Parkway Toll Road, Segment B-2 from the west high bank of Oyster Creek to Sienna Ranch Road, in Fort Bend County, Texas, (the "Project");

WHEREAS, the FBCTRA desires to enter into an agreement with Engineer for the performance of services during the Project, that are within the scope of services in Attachment A ("Scope of Services");

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

### AGREEMENT

1. General

The Engineer shall render professional services to FBCTRA related to the Project as defined in the Scope of Services in Attachment A.

The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of Engineer's profession practicing under similar conditions at the same time and in the same locality.

2. Compensation and Payment

- a. The Maximum Compensation under this Agreement is \$123,023.00. The amount paid under this Agreement may not exceed the Maximum Compensation without an approved supplemental agreement.

Compensation for the performance of services within the Scope of Services described in Attachment A will be paid as a lump sum amount not to exceed \$123,023.00, as shown in Attachment B.

The Engineer shall furnish satisfactory documentation of such work (e.g. timesheets, billing rates, classifications, invoices, etc.) as may be required by FBCTRA.

- b. All performance of the Scope of Services and any services outside the Scope of Services ("Additional Services"), including changes in the contractual scope of

work and revision of work satisfactorily performed, will be performed only when approved in advance and authorized by the FBCTRA, and Additional Services will be reimbursed based on the billing rates in effect at that time, to the extent that such labor costs and subcontracts are reasonable and necessary for the performance of such services. Out-of-pocket expense costs may be reimbursed only when approved in advance and authorized by the FBCTRA. Payment will be made on the basis of project progress to be billed monthly, and, for Additional Services, on the basis of time and expense records, and, in all cases, in accordance with those payment procedures set forth in subsection d. below. Billing rates will be inclusive of all direct labor, fringe benefits, general overhead, and profit.

- c. Where subcontractors are employed by the Engineer to perform pre-approved and pre-authorized Additional Services, the Engineer will be reimbursed for subcontractors' actual salaries and hourly rates, including overtime rates. Reimbursement to the subcontractor for non-salary costs incurred by subcontractor will be on the same basis as if the cost was incurred by the Engineer. For subcontractors employed for the convenience of the FBCTRA, the Engineer will be paid a subcontract administrative fee equal to ten percent (10%) of all subcontractor invoiced amounts.
- d. It is understood and agreed that monthly payments will be made to the Engineer by the FBCTRA based on the following procedures: On or about the fifteenth day of each month during the performance of services hereunder and on or about the fifteenth day of the month following completion of all services hereunder, the Engineer shall submit to the FBCTRA two (2) copies of invoices showing the amounts due for services performed during the previous month, set forth separately for work under this Agreement and for any Additional Services (accompanied by supporting certified time and expense records of such charges in a form acceptable to the FBCTRA). It is specifically understood that any requests for travel reimbursements shall comply with those procedures for travel reimbursement to Fort Bend County (the "County") employees established by the Fort Bend County Auditor (the "Auditor"). The FBCTRA 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. The County shall pay each such invoice as approved by the FBCTRA within thirty (30) calendar days after the FBCTRA's approval of same.

3. Time of Performance

It is understood and agreed that the time for performance of the Engineer's services under this Agreement shall begin with receipt of the Notice to Proceed. The Engineer will maintain the delivery schedule in Attachment A.

This Agreement will terminate upon the Engineer's completion of the Scope of Services to the satisfaction of the FBCTRA.

4. The FBCTRA's Option to Terminate

- a. The FBCTRA has the right to terminate this Agreement at its sole option at any time, with or without cause, by providing 30 days written notice of such intentions to terminate and by stating in said notice the "Termination Date" which shall be less than 30 days later than the actual receipt of such written notice by the Engineer. Upon such termination, the FBCTRA shall compensate the Engineer in accordance with Section 2, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to the FBCTRA. The Engineer's final invoice for said services will be presented to and paid by the FBCTRA in the same manner set forth in Section 2(d), above.
- b. Termination of this Agreement and payment as described in subsection (a) of this section shall extinguish all rights, duties, obligations, and liabilities of the FBCTRA and the Engineer under this Agreement, and this Agreement shall be of no further force and effect, provided, however, such termination shall not act to release the Engineer from liability for any previous default either under this Agreement or under any standard of conduct set by common law or statute. The obligations in Sections 5, 6, and 14 of this Agreement shall survive the termination of this Agreement.
- c. If the FBCTRA 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 the Engineer.
- d. The FBCTRA's rights and options to terminate this Agreement, as provided in any provision of this Agreement shall be in addition to, and not in lieu of, any and all rights, actions, and privileges otherwise available under law or equity to the FBCTRA by virtue of this Agreement or otherwise. Failure of the FBCTRA to exercise any of its said rights, actions, options, or privileges to terminate this Agreement as provided in any provision of this Agreement shall not be deemed a waiver of any rights, actions, or privileges otherwise available under the law or equity with respect to any continuing or subsequent breaches of this Agreement or of any other standard of conduct set by common law or statute.
- e. Copies of all completed and partially completed documents prepared under this Agreement shall be delivered to the FBCTRA within 30 days of the Termination Date or upon Engineer's receipt of fees due and payable at the Termination Date, whichever is sooner, when and if this Agreement is terminated.

5. Inspection of the Engineer's Books and Records

Upon written notice (including email), the Engineer will permit the FBCTRA, or any duly authorized agent of the FBCTRA, to inspect and examine the books and records of the Engineer for the purpose of verifying the amount of work performed on the Project at reasonable times during normal business hours. FBCTRA's right to inspect survives the termination of this Agreement for a period of four years.

6. Ownership and Reuse of Documents

Upon payment in full for undisputed amounts of Engineer's services, all documents, including original drawings, estimates, specifications, field notes, and data created, produced, developed or prepared by Engineer or its approved outside advisory or support consultants (collectively, the "Documents") shall be the property of the FBCTRA, subject to all of the following terms and conditions; provided, however, FBCTRA shall not own and shall have no right to receive any documents not deemed "final" by the Engineer until completion or termination of this Agreement, as applicable. Engineer will deliver the Documents to FBCTRA within 30 days of the completion or termination of this Agreement and may retain a set of reproducible record copies of the Documents, provided that the Engineer has received full compensation due pursuant to the terms of this Agreement. It is mutually agreed that FBCTRA will use the Documents solely in connection with the Project and for no other purposes, except with the express written consent of the Engineer, which consent will not be unreasonably withheld. Any use of the Documents without the express written consent of the Engineer will be at FBCTRA's sole risk and without liability or legal exposure to Engineer.

FBCTRA shall also be the owner of all intellectual property rights of the services rendered hereunder, including all rights of copyright therein. It is the intention of Engineer and FBCTRA that the services provided are a "work for hire" as the term is used in the federal Copyright Act. Moreover, Engineer hereby agrees to assign, and by these presents, does assign to FBCTRA, all of Engineer's worldwide right, title, and interest in and to such work product and all rights of copyright therein.

Engineer agrees that all trademarks, trade names, service marks, logos, or copyrighted materials of FBCTRA that Engineer is permitted to use in connection with the services will not be used without FBCTRA's consent and shall remain the sole and exclusive properties of FBCTRA, and this Agreement does not confer upon Engineer any right or interest therein or in the use thereof.

7. Personnel, Equipment, and Material

- a. The Engineer represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Services required under this Agreement and that the Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel and equipment, in the opinion of the FBCTRA, to perform the Scope of Services when and as required and without delays. It is understood that the FBCTRA will approve assignment and release of all key Engineer personnel and that the Engineer shall submit written notification of all key Engineer personnel changes for the FBCTRA's approval prior to the implementation of such changes. For the purpose of this Agreement, key Engineer personnel are defined as: Project Manager. Services described in this Agreement shall be performed under the direction of a Texas Licensed Professional Engineer.
- b. All employees of the Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of the Engineer

who, in the opinion of the FBCTRA, is incompetent, or, by his conduct, becomes detrimental to the Project, shall, upon request of the FBCTRA, immediately be removed from association with the Project.

- c. Except as otherwise specified, the Engineer shall furnish all equipment, transportation, supplies, and materials required for its operation under this Agreement.

8. Items to be furnished to Engineer by the FBCTRA

As applicable, the following items will be supplied to the Engineer:

- a. Copies of preliminary studies by others.
- b. Assistance in coordination with all utility companies.
- c. Assistance in coordination with all public and governmental entities.

9. Subletting

The Engineer shall not sublet, assign, or transfer any part of its rights or obligations in this Agreement without the prior written approval of the FBCTRA. Responsibility to the FBCTRA for sublet work shall remain with the Engineer.

10. Conference

At the request of the FBCTRA, the Engineer shall provide appropriate personnel for conferences at its offices, or attend conferences at the various offices of the FBCTRA, or at the site of the Project, and shall permit inspections of its offices by the FBCTRA, or others when requested by the FBCTRA.

11. Appearance as Witness

If requested by the FBCTRA, or on its behalf, the Engineer shall prepare such engineering exhibits and plans as may be requested for all hearings and trials related to the Project and, further, it shall prepare for and appear at conferences at the office of the FBCTRA and shall furnish competent expert engineering witnesses to provide such oral testimony and to introduce such demonstrative evidence as may be needed throughout all trials and hearings with reference to any litigation relating to the Project. Trial preparation and appearance by the Engineer in courts regarding litigation matters are Additional Services and compensation will be paid in accordance with Section 2(b).

12. Compliance with Laws

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

and regulations, licensing laws and regulations. When required, the Engineer shall furnish the FBCTRA with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

13. Insurance

The Engineer shall obtain and maintain, throughout the term of the Agreement, insurance of the types and in the minimum amounts set forth in Attachment C.

14. Indemnification

With respect to claims brought by third parties against either Engineer or the FBCTRA relating to the property or facilities with respect to which this Agreement pertains, Engineer and the FBCTRA agree as follows:

- a. **ENGINEER WILL INDEMNIFY AND HOLD HARMLESS THE FBCTRA, ITS DIRECTORS, OFFICERS, AND EMPLOYEES AGAINST ANY CLAIMS, DEMANDS OR CAUSES OF ACTION; AND COSTS, LOSSES, LIABILITIES, EXPENSES AND JUDGMENTS INCURRED IN CONNECTION THEREWITH, INCLUDING REASONABLE ATTORNEY'S FEES AND COURT COSTS, BROUGHT BY ANY OF ENGINEER'S EMPLOYEES OR REPRESENTATIVES, OR BY ANY OTHER THIRD PARTY, BASED UPON, IN CONNECTION WITH, RESULTING FROM OR ARISING OUT OF THE NEGLIGENT ACTS, ERRORS OR OMISSIONS OF ENGINEER; HOWEVER, ENGINEER'S CONTRACTUAL OBLIGATION OF INDEMNIFICATION SHALL NOT EXTEND TO THE NEGLIGENCE OR OTHER FAULT OF THE FBCTRA OR STRICT LIABILITY IMPOSED UPON THE FBCTRA AS A MATTER OF LAW (INCLUDING STRICT LIABILITY IMPOSED UPON THE FBCTRA AS A RESULT OF THE CONDITION OF THE PROPERTY OR FACILITIES WITH RESPECT TO WHICH THIS AGREEMENT PERTAINS).**
- b. In the event that both the FBCTRA and Engineer are adjudicated negligent or otherwise at fault or strictly liable without fault with respect to damage or injuries sustained by the claimant, each shall be responsible for its own costs of litigation and pro rata share of damages as determined by the proceedings.

It is a condition precedent to the indemnitor's contractual obligation of indemnification under this Agreement that the party seeking indemnity shall provide written notice of a third party claim, demand, or cause of action within 30 days after such third party claim, demand, or cause of action is received by the party seeking indemnity. It is a further condition precedent to the indemnitor's contractual obligation of indemnification under this Agreement that the indemnitor shall thereafter have the right to participate in the investigation, defense, and resolution of such third party claim.

15. Dispute Resolution

Except as expressly provided in Section 4. Option to Terminate, if a dispute arises out of, or relates to, the breach thereof, and if the dispute cannot be settled through negotiation, then the FBCTRA and the Engineer agree to submit the dispute to mediation. In the event the FBCTRA or the Engineer desires to mediate any dispute, that party shall notify the other party in writing of the dispute desired to be mediated. If the parties are unable to resolve their differences within 10 days of the receipt of such notice, such dispute shall be submitted for mediation in accordance with the procedures and rules of the American Arbitration Association (or any successor organization) then in effect. The deadline for submitting the dispute to mediation can be changed if the parties mutually agree in writing to extend the time between receipt of notice and submission to mediation. The expenses of the mediator shall be shared 50 percent by the FBCTRA and 50 percent by the Engineer. This requirement to seek mediation shall be a condition required before filing an action at law or in equity.

16. Delivery of Notices, Etc.

- a. All written notices, demands, and other papers or documents to be delivered to the FBCTRA under this Agreement, shall be delivered to the Fort Bend County Toll Road Authority, P.O. Box 1307, Sugar Land, Texas 77406, Attention: Mike Stone, or at such other place or places as it may from time to time designate by written notice delivered to the Engineer. For purposes of notice under this Agreement, a copy of any notice or communication hereunder shall also be forwarded to the following address: Fort Bend County Clerk, 301 Jackson Street, Richmond, Texas 77469, Attention: County Judge.
- b. All written notices, demands, and other papers or documents to be delivered to the Engineer under this Agreement shall be delivered to Earth Engineering, Inc., 4877 Langfield Road, Houston, TX 77040, Attention: Moe A. Shihadeh, P.E., D.GE, or such other place or places as the Engineer may designate by written notice delivered to the FBCTRA.

17. Reports of Accidents, Etc.

Within 24 hours after the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of the Engineer), whether or not it results from or involves any action or failure to act by the Engineer or any employee or agent of the Engineer and which arises in any manner from the performance of this Agreement, the Engineer shall send a written report of such accident or other event to the FBCTRA, setting forth a full and concise statement of the facts pertaining thereto. The Engineer shall also immediately send the FBCTRA a copy of any summons, subpoena, notice, other documents served upon the Engineer, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from the Engineer's performance of work under this Agreement.

18. The FBCTRA's Acts

Anything to be done under this Agreement by the FBCTRA may be done by such persons, corporations, or firms as the FBCTRA may designate.

19. Limitations

Notwithstanding anything herein to the contrary, all covenants and obligations of the FBCTRA under this Agreement shall be deemed to be valid covenants and obligations only to extent authorized by the Act creating the FBCTRA and permitted by the laws and the Constitution of the State of Texas. This Agreement shall be governed by the laws of the State of Texas, and no officer, director, or employee of the FBCTRA shall have any personal obligation hereunder.

20. Captions Not a Part Hereof

The captions of subtitle of the several sections and divisions of this Agreement constitute no part of the content hereof, but are only labels to assist in locating and reading the provisions hereof.

21. Controlling Law, Venue

This Agreement shall be governed and construed in accordance with the laws of the State of Texas. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all disputes arising hereunder and waive the right to sue or be sued elsewhere.

22. Successors and Assigns

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

23. Appendices

The Appendices attached to this Agreement, which consists of:

- |              |                                    |
|--------------|------------------------------------|
| Attachment A | Scope of Services                  |
| Attachment B | Compensation for Scope of Services |
| Attachment C | Insurance Requirements             |

24. Statutory Terms Applicable To State Political Subdivisions

- a. As required by Chapter 2270, Government Code, Engineer hereby verifies that it does not boycott Israel and will not boycott Israel through the term of this Agreement. For purposes of this verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations

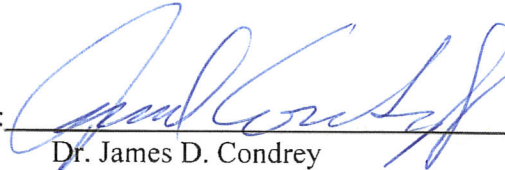
specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

- b. Prior to execution of this Agreement by FBCTRA, the Engineer will be required to submit a Texas Ethics Commission Form 1295. Please see this website for details related to this disclosure:  
[https://www.ethics.state.tx.us/whatsnew/elf\\_info\\_form1295.htm](https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm)
- c. Engineer certifies and agrees that it is not identified on a list prepared and maintained under Sections 806.051, 807.051 or 2252.153, Texas Government Code.
- d. In accordance with Section 176.0065, Texas Local Government Code, a list of local government officers of FBCTRA may be obtained by contacting the FBCTRA's records administrator at (281) 500-6050.

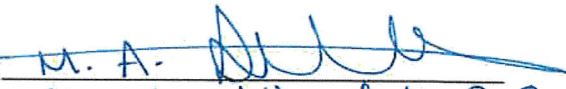
[Signatures Follow]

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 24th day of July, 2019.

FORT BEND COUNTY TOLL ROAD  
AUTHORITY, a Texas local government  
corporation

By:   
Dr. James D. Condrey  
Chairman, Board of Directors

Earth Engineering, Inc.  
ENGINEER

By:   
Name: Mae A. Shihadeh, P. E., D. G. E.  
Title: Principal

**EFFECTIVE DATE**

THIS AGREEMENT IS EFFECTIVE ON THE DATE IT IS APPROVED BY THE FORT BEND COUNTY COMMISSIONERS COURT, AND IF NOT SO APPROVED SHALL BE NULL AND VOID.

DATE OF COMMISSIONERS COURT APPROVAL: \_\_\_\_\_

AGENDA ITEM NO.: \_\_\_\_\_

# ATTACHMENT A



down to earth solutions  
for your complex projects

## EARTH ENGINEERING, INC.

Geotechnical, Materials Testing & Environmental Consultants  
4877 Langfield Road • Houston, TX 77040 • T: (713) 681-5311 • F: (713) 681-5411 • [www.eartheng.com](http://www.eartheng.com)

### GEOTECHNICAL EXPLORATION FOR FORT BEND COUNTY TOLL ROAD AUTHORITY PROJECT, SEGMENT B-2 BETWEEN SIENNA PKWY AND SIENNA RANCH ROAD IN SIENNA PLANTATION, TX

#### SCOPE OF WORK

The scope of our services was specified based on Texas Department of Transportation TXDOT:

The scope of our services was specified by the client as follows: The number of borings and their depths and locations are presented in the following table (Please refer to the attached plates)

Boring	Location	DEPTH (ft.)	Drilled for
B-1	ROW	15	Utilities
B-2	ROW	15	Utilities
B-3	ROW	15	Utilities
B-4	ROW	15	Utilities
B-5	ROW	15	Utilities
B-6	ROW	15	Utilities
B-7	ROW	15	Utilities
B-8 (Piezometer)	ROW	25	Groundwater measurement
B-9	ROW	15	Utilities
B-10	ROW	15	Utilities
B-11 (Piezometer)	ROW	25	Groundwater measurement
B-12	ROW	15	Utilities
Creek boring - 1	Flat Creek	60	Creek Bridge Foundations
Creek boring -2	Flat Creek	60	Creek Bridge Foundations
Creek boring -3	Flat Creek	60	Creek Bridge Foundations
Creek boring -4	Flat Creek	60	Creek Bridge Foundations
ML-RW-1	High Mainlane ROW	35	Stability mainlane
ML-RW-2	High Mainlane ROW	35	Stability mainlane
L-RW-1	Sienna Pkwy Bridge	35	Sienna Pkwy Bridge Retaining Wall
L-RW-2	Sienna Pkwy Bridge	35	Sienna Pkwy Bridge Retaining Wall
L-RW-3	Sienna Pkwy Bridge	35	Sienna Pkwy Bridge Retaining Wall
L-RW-4	Sienna Pkwy Bridge	35	Sienna Pkwy Bridge Retaining Wall
R-RW-5	Sienna Pkwy Bridge	35	Sienna Pkwy Bridge Retaining Wall

R-RW-6	Sienna Pkwy Bridge	35	Sienna Pkwy Bridge Retaining Wall
R-RW-7	Sienna Pkwy Bridge	35	Sienna Pkwy Bridge Retaining Wall
R-RW-8	Sienna Pkwy Bridge	35	Sienna Pkwy Bridge Retaining Wall
Bridge boring -1	Sienna Pkwy Bridge	100	Sienna Pkwy Foundations
Bridge boring -2	Sienna Pkwy Bridge	100	Sienna Pkwy Foundations
Bridge boring -3	Sienna Pkwy Bridge	100	Sienna Pkwy Foundations
Bridge boring -4	Sienna Pkwy Bridge	100	Sienna Pkwy Foundations
<b>Total BORING Length (ft.)</b>		<b>1190</b>	
Total borings length from (0-50 ft)		950	
Total borings length below (50 ft)		240	

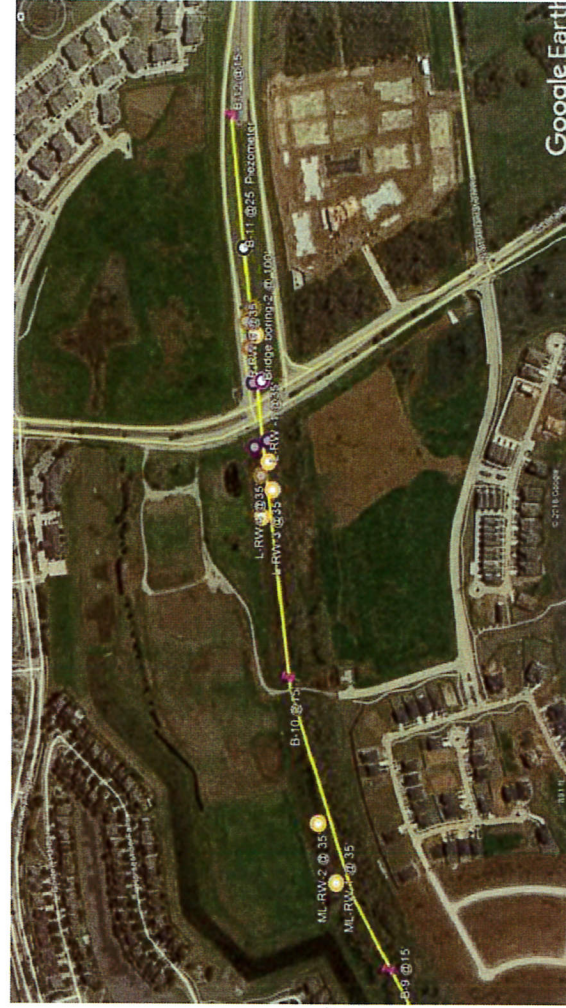
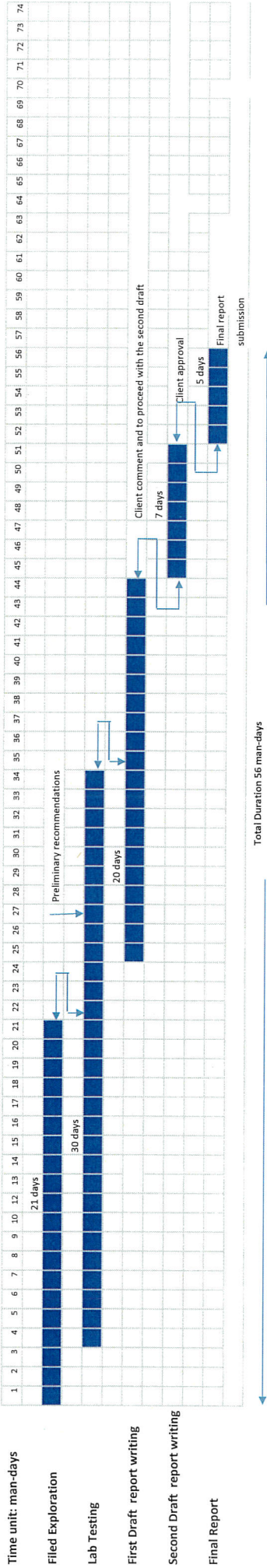
- Total number of borings is 30 as follows:
- Drilling and sampling (10) borings to a depth of 15-feet at proposed Parkway ROW.
- Drilling and sampling two (2) borings to a depth of 25-feet at proposed Parkway ROW Then Convert them to Piezometers for groundwater measurements.
- Drilling and sampling four (4) borings to a depth of 60-feet at flat creek bridge.
- Drilling and sampling four (4) borings to a depth of 100-feet at Sienna PKWY bridge.
- Drilling and sampling eight (8) borings to a depth of 35-feet at Sienna PKWY bridge retaining walls.
- Drilling and sampling two (2) borings to a depth of 35-feet at retaining walls at the ROW.
- Obtaining continuous soil samples to a depth of 10 feet.
- Earth Engineering will perform granular soil sampling utilizing the Standard Penetration Test (split spoon sampler) by driving. Blow counts will be recorded as produced by a 140-pound weight falling 30 inches (ASTM D-1558). Cohesive soils will be sampled using a thin walled sampler (Shelby Tube) hydraulically pushed into the soil (ASTM D-1587).
- Performing laboratory tests on selected representative soil samples to develop the engineering properties of the soil. These tests may include: pocket penetrometers, unconfined compression, present moisture content, percent passing 200 sieves, dry densities, Atterberg Limits, Unconsolidated-Undrained Triaxial test, California Bearing Ratio (CBR), and OMD Standard Compaction as deemed appropriate.
- Perform Texas Cone Penetration (TCP) in accordance to Tes-132-E
- Utilizing the results of observations both in the field and in limited laboratory tests, Earth Engineering will author a report that will include the following subjects:

- soil stratigraphy: soil encountered up to 100 feet
- groundwater conditions and groundwater control during construction
- boring log information will include all laboratory test results and field observations utilizing Wincore.
- develop design recommendations for sienna PKWY bridge and Flat Creek bridge foundations including bearing piles capacity curves and lateral load analysis.
- Develop retaining wall analyses including the settlement analysis. The analysis will include the computation of the factor of safety for bearing capacity, global stability, overturning and sliding. In addition, allowable bearing pressure, passive earth pressure, friction factor, settlement analysis (consolidation report) and lateral earth pressure for the retaining walls will be included.
- Complete TxDOT sheet RW(MSE)DD - Mechanically Stabilized Earth Retaining Wall Design Data sheet.
- develop design recommendations for the underground utilities. The recommendations will include buried structures such as manhole etc.
- classify the soils types in accordance to TXDOT requirements based on the characteristics of the soils along the alignment
- recommend the utilities bedding in accordance with TXDOT standards and specifications
- present subgrade stabilization option such as lime/fly-ash for cohesion-less soils and lime for cohesive soils
- recommend construction considerations, as deemed necessary
- recommend back-fill material specifications
- provide the sign and sealed Soil Boring Log sheets for insertion to the plans
- Incorporating all of the above into a geotechnical engineering report which is performed under the direction of, and signed by, a professional engineer registered in the State of Texas.

### **SCHEDULING**

We anticipate that the total project duration will be 55 working days.

Geotechnical Exploration Schedule - P-EE1917105-G  
 FORT BEND COUNTY TOLL ROAD AUTHORITY PROJECT, SEGMENT B-2



EARTH ENGINEERING Inc.

Plate 1

## ATTACHMENT B

<i>SERVICE DESCRIPTION</i>	<i>UNIT FEE</i>				<i>AMOUNT</i>	<i>ESTIMATED COST</i>
<b>Field Exploration</b>						
	Rate					
Mobilization/Demobilization	\$349	Mob	2	Mob		\$698.00
Drilling and Sampling (0-50)	\$19	foot	950	feet		\$18,050.00
Drilling and Sampling below 50 feet	\$21	foot	240	feet		\$5,040.00
Piezometer installation	\$16	foot	50	feet		\$800.00
Texas Cone Penetration (TCP)	\$28.00	Each	320	Each		\$8,960.00
Backfill the drilled boring (grouting)	\$7.00	foot	1190	feet		\$8,330.00
Field Engineer supervision and layout and logging	\$101.00	hour	220	hours		\$22,220.00
Vehicle Charge	\$10.00	hour	220	hours		\$2,200.00
				<b>Subtotal:</b>		<b>\$66,298.00</b>
<b>Laboratory Testing</b>						
Atterberg Limits (LL, Pi's)	\$62.00	test	160	tests		\$9,920.00
Moisture Contents	\$9.00	test	200	tests		\$1,800.00
Percent Finer than No. 200 Sieve	\$48.00	test	25	tests		\$1,200.00
Unconsolidated-Undrained Triaxial test	\$63.00	test	30	tests		\$1,890.00
Consolidated-Undrained Triaxial test		LS	8	tests		\$8,000.00
One Dimensional Consolidation	\$361.00	test	15	tests		\$5,415.00
				<b>Subtotal:</b>		<b>\$28,225.00</b>
<b>Engineering and Report Writing</b>						
Principal Engineer, P.E.	\$180.00	hour	25	hours		\$4,500.00
Project Engineer, EIT	\$90.00	hour	250	hours		\$22,500.00
Support Personnel	\$50.00	hour	30	hours		\$1,500.00
				<b>Subtotal</b>		<b>\$28,500.00</b>
				<b>TOTAL</b>		<b>\$123,023.00</b>

Please note that the above price does not include clearing

# ATTACHMENT C

The Engineer shall furnish certificates of insurance to the FBCTRA evidencing compliance with the insurance requirements hereof. Certificates shall indicate name of the Engineer, name of insurance company, policy number, term of coverage and limits of coverage. The Engineer shall cause its insurance companies to provide the FBCTRA with at least thirty (30) days prior written notice of any reduction in the limit of liability by endorsement of the policy, cancellation or non-renewal of the insurance coverage required under this Agreement. The Engineer shall obtain such insurance from such companies having a Bests rating of B+/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:

- a. Workers' Compensation insurance in accordance with the laws of the State of Texas, or state of hire/location of Services, and Employers' Liability coverage with a limit of not less than \$500,000 each employee for Occupational Disease, \$500,000 policy limit for Occupational Disease; and Employer's Liability of \$500,000 each accident.
- b. Commercial General Liability insurance including coverage for Products/Completed Operations, Blanket Contractual, Contractors' Protective Liability Broad Form Property Damage, Personal Injury/Advertising Liability, and Bodily Injury and Property Damage with limits of not less than:

\$2,000,000	general aggregate limit
\$1,000,000	each occurrence, combined single limit
\$2,000,000	aggregate Products, combined single limit
\$1,000,000	aggregate Personal Injury/Advertising Liability
\$50,000	Fire Legal Liability
\$5,000	Premises Medical
- c. Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
- d. Umbrella Excess Liability insurance written as excess of Employer's Liability, with limits not less than \$2,000,000 each occurrence combined single limit.
- e. Professional Liability insurance with limits not less than \$1,000,000 each claim/annual aggregate.

The FBCTRA and the FBCTRA's Directors shall be named as additional insureds to all coverages required above, except for those requirements in paragraphs "a" and "e." All policies written on behalf of the Engineer shall contain a waiver of subrogation in favor of the FBCTRA and the FBCTRA's Directors, with the exception of insurance required under paragraph "e."



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/14/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Marsh & McLennan Agency LLC 2500 City West Blvd, #2400 Houston TX 77042	<b>CONTACT NAME:</b> Elaine Brown <b>PHONE (A/C, No, Ext):</b> 713-780-6181 <b>E-MAIL ADDRESS:</b> elaine.brown@marshmma.com	<b>FAX (A/C, No):</b> 212-948-6281	
	<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
<b>INSURED</b> Earth Engineering, Inc. 4877 Langfield Houston TX 77040	<b>INSURER A:</b> Texas Mutual Insurance Company		22945
	<b>INSURER B:</b> Travelers Indemnity Company		25658
	<b>INSURER C:</b> Certain Underwriters at Lloyd's		55555
	<b>INSURER D:</b>		
	<b>INSURER E:</b>		
<b>INSURER F:</b>			

**COVERAGES**      **CERTIFICATE NUMBER:** [REDACTED]      **REVISION NUMBER:** [REDACTED]

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:			[REDACTED]	9/4/2018	9/4/2019	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000
							MED EXP (Any one person)	\$ 10,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
							Project Aggregate	\$ 2,000,000
B	<input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY			[REDACTED]	9/4/2018	9/4/2019	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
B	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input type="checkbox"/> EXCESS LIAB <input checked="" type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			[REDACTED]	9/4/2018	9/4/2019	EACH OCCURRENCE	\$ 5,000,000
							AGGREGATE	\$ 5,000,000
								\$
A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	[REDACTED]	9/4/2018	9/4/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER	
							E.L. EACH ACCIDENT	\$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
C	<b>Professional Liability</b> Retro Date 9/4/96			[REDACTED]	9/4/2018	9/4/2019	Each Claim Aggregate Deductible	\$2,000,000 \$2,000,000 \$25,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
 The General Liability, Automobile Liability and Umbrella Liability policies include a Blanket Additional Insured endorsement that provides additional insured status only where such status is required by a written contract. The General Liability, Automobile Liability, Umbrella, Workers Compensation and Professional Liability policies include a Blanket Waiver of Subrogation endorsement that provides this status only where such status is required by a written contract. The "Primary and Non-contributory" wording is included in the General Liability Additional Insured Endorsement where there is a written contract that requires such status.  
 Geotechnical Exploration for Fort Bend County Toll Road Authority Project, Segment B-2 between Sienna Parkway and Sienna Ranch Road in Sienna Plantation, TX

**CERTIFICATE HOLDER****CANCELLATION**

Fort Bend County Roll road Authority  
 1950 Lockwood Bypass  
 Thompsons TX 77469

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Brett Herrington

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# CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.  
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

## OFFICE USE ONLY CERTIFICATION OF FILING

Certificate Number:  
2019-520688

Date Filed:  
07/24/2019

Date Acknowledged:  
07/30/2019

**1 Name of business entity filing form, and the city, state and country of the business entity's place of business.**  
EARTH ENGINEERING, INC.  
Houston, TX United States

**2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.**  
Fort Bend County Toll Road

**3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.**  
FSP6  
Geotechnical Engineering Services

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
Shihadeh, Mohamed	Houston, TX United States		X
Earth Engineering, Inc.	Houston, TX United States	X	

**5 Check only if there is NO Interested Party.**

**6 UNSWORN DECLARATION**

My name is Juanita Shihadeh, and my date of birth is [REDACTED]

My address is [REDACTED]  
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Harris County, State of Texas, on the 29 day of July, 2019.  
(month) (year)

Juanita Shihadeh  
Signature of authorized agent of contracting business entity  
(Declarant)