

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 HVJ Associates, Inc., hereinafter called "Engineer."

WITNESSETH

WHEREAS, the FBCTRA desires to enter into an agreement for the performance by Engineer of services during the Project, and which are within the "Scope of Services" as defined in paragraph 2 below;

WHEREAS, the FBCTRA proposes to construct a Toll Road grade separation structure on the Fort Bend Parkway Toll Road over SH 6 and construct toll gantry structures on the toll road system in Fort Bend County, Texas, (the "Project");

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 contract is \$120,000.00. The amount paid under this Agreement may not exceed the Maximum Compensation without an approved change order.

Compensation for the performance of services within the Scope of Services described in Attachment A shall be in accordance with the billing rates shown in Attachment B, with total compensation not to exceed \$120,000.00. Payments for work detailed in Attachment A will be made as such work is performed.

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

- b. 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 completion certificate and, time and expense records and in accordance with those payment procedures set forth in subparagraph 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 additional services not within the original Scope of 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 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 employees established by the Fort Bend County 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 and end on March 1, 2016.

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 paragraph 3, 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 paragraph 3(b), above.

- b. Termination of this Agreement and payment as described in subparagraph (a) of this Paragraph 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 Paragraph 6 shall survive the termination of this Agreement.
- c. If the FBCTRA terminates this Agreement as provided in this paragraph, 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 or upon Engineer's receipt of termination payment, whichever is sooner, when and if this Agreement is terminated.

5. Inspection of the Engineer's Books and Records

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. FBCTRA's right to inspect survives the termination of this Agreement for a period of four years.

6. Ownership and Reuse of Documents

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 termination of this Agreement. Engineer will deliver the Documents to FBCTRA within 30 days of the 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 District'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 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 in 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 an engineer licensed to practice professional engineering in the State of Texas.
- 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

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's Executive Director 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 made in accordance with the schedule contained in Exhibit 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 of 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. Termination, 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 2789, Sugar Land, Texas 77487-9740, Attention: Bill Jameson, 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 HVJ Associates, Inc., 6120 Dairy Ashford Street, Houston, Texas, 77072, Attention: Hossam Esmail, 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.

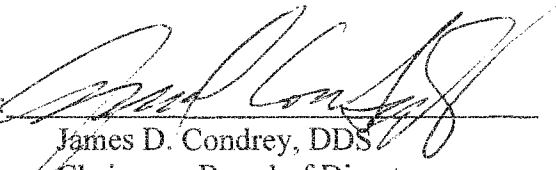
23. Appendices

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

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 21st day of January, 2015.


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

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

ATTEST 
By _____
Secretary, Board of Directors



HVJ Associates, Inc.
ENGINEER

By: 
Name: SYED S. JAPAR, PE
Title: HOUSTON CME MANAGER

**ATTACHMENT A
SCOPE OF SERVICES**

**FORT BEND PARKWAY TOLL ROAD AT SH 6
AND ALONG THE FBCTRA SYSTEM**

CONSTRUCTION MATERIALS TESTING AND INSPECTION SERVICES

GENERAL DESCRIPTION

The proposed project consists of the construction of an overpass bridge structure and approaches on the Fort Bend Parkway Toll Road at SH 6 and toll gantries on the FBCTRA system. The construction work includes embankment, stabilized subgrade, base, asphalt, concrete pavement, concrete structures, foundations, etc. All work is to Texas Department of Transportation (TxDOT) specifications.

SCOPE OF SERVICES

Scope of services covered in this proposal will consist of all required materials testing and inspection to ensure the work meets TxDOT specifications. The following services are expected to be performed:

- Moisture/density relationship of soils / stabilized soils
- Compaction testing of subgrade soils, compaction testing of fill / backfill
- Compressive strength testing of concrete test cylinders
- Compressive strength of cement stabilized sand
- Asphalt testing
- Material mix design review
- Other testing or inspection services as required

Working hours for testing and inspection staff will not be limited to 7 a.m. to 5 p.m. on weekdays, and may include night and weekend work.

**Attachment B
Fee Schedule
Construction Materials Engineering Services
Labor and Unit Rates
Effective: January 1, 2015**

Code	Description	Unit	Current Fee
10100	Principal, P.E.	Hr.	206.00
10200	Senior Engineer, P.E. (10 yrs experience)	Hr.	183.00
10300	Project Engineer, P.E. or Project Geologist, P.G.	Hr.	149.00
10400	Graduate Engineer and Graduate Geologist	Hr.	101.00
10500	Technician, NICET IV	Hr.	84.00
10600	Technician, NICET III, HMA-II	Hr.	75.00
10700	Technician, NICET II, ACI Construction Inspector, HMA-1A or HMA-1B, NDT II, Logger or both: TxDOT Soil SB-101 and SB-102	Hr.	65.00
10800	Technician, ACI Field Grade I, TxDOT Soil SB-101 or SB-102	Hr.	51.00
10900	Technician (Non-Certified)	Hr.	43.00
11000	Senior Welding Inspector, SCWI	Hr.	115.00
11100	Welding Inspector, CWI, ACCP II	Hr.	91.00
11200	Associate Welding Inspector	Hr.	65.00
11300	Inspector, ASNT III	Hr.	112.00
11400	NDT Inspector Level II with asst. (2 man crew)	Hr.	112.00
11500	Engineering Assistant	Hr.	60.00
15000	Vehicle Charge	Hr.	10.00
15100	Reimbursable Expenses		Cost + 10%
15200	Services provided by quotation		Cost + 10%

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Aggregates

Code	Description	Standard	Unit	Current Fee
20100	Sieve Analysis - Coarse Aggregates	C 136 - C	Ea	54.00
20200	Sieve Analysis - Fine Aggregates	C 136 - F	Ea	54.00
20300	Rel Density & Abs. - Coarse Aggregates	C 127	Ea	81.00
20400	Rel Density & Abs. - Fine Aggregates	C 128	Ea	99.00
20500	Bulk Density & Voids in Aggregate	C 29	Ea	38.00
20600	Absorption - Coarse Aggregates	C 127	Ea	45.00
20700	Absorption - Fine Aggregates	C 128	Ea	45.00
20800	Finer than 75-um (No. 200) Sieve	C 117	Ea	49.00
20900	Organic Impurities in Fine Aggregates	C 40	Ea	48.00
21000	L.A. Abrasion	C 131 / C 535	Ea	208.00
21100	Clay Lumps and Friable Particles	C 142	Ea	55.00
21200	Lightweight Particles	C 123	Ea	64.00
21300	Sand Equivalent	D 2419	Ea	65.00
21400	Na/Mg Sulfate Soundness (5 cycles)	C 88	Ea	354.00
21500	Na/Mg Sulfate Soundness (Add'l cycles)	C 88	Ea	204.00

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Portland Cement Concrete

Code	Description	Standard	Unit	Current Fee
30100	Compressive Str. (Cylinder)	C 39	Ea	17.00
30200	Flexural Str. (Beam)	C 78	Ea	27.00
30300	Split Tensile Str. (Incl prep)	C 496	Ea	109.00
30400	Time of Set by Penetration	C 403	Ea	320.00
30500	Linear Shrinkage & Thermal Coef (Bar)	C 531	Set 3	328.00
30600	Length Change of Hydraulic-Cement Mortar and Concrete	C 490 & C 157	Set 3	116.00
30700	Density of Structural Lwt. Concrete	C 567	Ea	81.00
30800	Concrete Coring, Minimum Charge	C 42	Min	338.00
30900	Concrete Coring (4" diameter to 6" Thickness)	C 42	Ea	105.00
31000	Concrete Coring, 4", additional thickness (over 6" to 12")	C 42	In	9.00
31100	Concrete Coring, 4", additional thickness (over 12")	C 42	In	12.00
31110	Concrete Coring (6" diameter to 6" Thickness)	C 42	Ea	150.00
31112	Concrete Coring, 6", additional thickness (over 6" to 12")	C 42	In	13.50
31113	Concrete Coring, 6", additional thickness (over 12")	C 42	In	18.00
31200	Preparation of Core, Cap & Test	C 42	Ea	78.00
31300	Measuring Length of Core	C 174	Ea	13.00
31400	Pachometer Survey (Magnetic Induction)	None	Day	91.00
31500	Probe Penetration Test Equipment (plus probes)	C 803	Day	92.00

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HMAC

Code	Description	Standard	Unit	Current Fee
40100	Mix Design Review		Ea	218.00
40200	HMAC Design (In-Place)		Ea	2177.00
40300	Trail Batch (up to 5 points)		Ea	1633.00
40400	Additional Points		Ea	235.00
40500	Extraction/Gradation	Tex-210F	Ea	203.00
40600	Specific Gravity	D 2041 & 201F	Ea	72.00
40700	HVEEM Stability	Tex-208F	Set	95.00
40800	Bulk Density - Lab Molded or Core	Tex-207F	Set	54.00
40900	Bulk Density Core	Tex-207F	Ea	48.00
41000	Molding Specimens	Tex-206F	Set	63.00
41100	Maximum Theoretical Specific Gravity	Tex-227F	Ea	91.00
41200	Apparent Specific Gravity	Tex-202F	Ea	68.00
41300	Abson Recovery	Tex-211F	Ea	327.00
41400	Moisture Susceptibility	Tex-531C	Ea	476.00
41500	Penetration	D 5	Ea	86.00
41600	Ductility	D 113	Ea	115.00
41700	Viscosity	D 2170	Ea	95.00
41800	Asphalt Coring, Minimum Charge		Min	338.00
41900	Asphalt Coring (4" Dia. to 6" Thickness)		Ea	93.00
42000	Asphalt Coring (4" Dia. over 6" Thickness)		In	8.00
42150	Asphalt Coring (6" Dia. to 6" Thickness)		Ea	140.00
42160	Asphalt Coring (6" Dia. Over 6" Thickness)		In.	12.00
42200	Measuring Thickness of Asphalt		Ea	8.00
42300	PMA Extraction/Gradation	D 2172	Ea	272.00
42400	PMA Extraction/Gradation	D 6307	Ea	169.00
42500	Asphalt Content	D 4125	Ea	81.00

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Structural Steel

Code	Description	Standard	Unit	Current Fee
50100	Radiographic Source, Iridium		Day	123.00
50200	Radiographic Source, Cobalt 60		Day	142.00
50300	Ultrasonic equipment	E 114, E 273, E 587, E 797	Day	91.00
50400	Magnetic Particle Inspection Equipment	E 709	Day	34.00
50500	Skidmore-Wilhelm Tension Indicator		Day	136.00
50600	Torque Wrench		Day	50.00
50700	Discontinuity (Holiday) Equipment		Day	95.00
50800	Dry Film Thickness Equipment (Tooke	D 4138	Day	34.00
50900	Dry Film Thickness Equipment	D 7091	Day	34.00

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Soils

Code	Description	Standard	Unit	Current Fee
90100	Liquid & Plastic Limits	D 4318	Ea	62.00
90200	Moisture Content of Soils by Mass	D 2216	Ea	9.00
90300	Moisture Content by Microwave	D 4643	Ea	30.00
90400	Sieve Analysis	D 422	Ea	57.00
90500	Sieve Analysis w/ Hydrometer	D 422	Ea	128.00
90600	Percent Passing #200 Sieve	D 1140	Ea	48.00
90700	Specific Gravity	D 854	Ea	59.00
90800	pH of Soils	D 4972	Ea	17.00
90900	Unconfined Compressive Strength	D 2166	Ea	45.00
91100	Unconsolidated-undrained Triaxial Compression	D 2850	Ea	63.00
91200	One-Dimension Consolidation	D 2435	Ea	361.00
91300	Consolidation, Additional Increment	D 2435	Ea	51.00
91400	Dispersive Characteristic by Pinhole Test	D 4647	Ea	286.00
91500	Dispersive Characteristic by Crumb Test	D 6572	Ea	38.00
91600	Double Hydrometer	D 4221	Ea	177.00
91700	Soil Suction - Filter Paper		Ea	57.00
91900	California Bearing Ratio	D 1883	Ea	215.00
92000	Soil Shrinkage Factors by Mercury Method	D 427	Ea	63.00
92100	Soil Shrinkage Factors by Wax Method	D 4943	Ea	76.00
92200	One-Dimensional Swell, Cohesive Soil	D 4546	Ea	292.00
92300	OMD Standard Compaction	D 698	Ea	204.00
92400	OMD Modified Compaction	D 1557	Ea	218.00
92500	Max. & Min. Density - Sand	D 4253/D 4254	Ea	212.00
92600	Percent Solids in Lime Slurry		Ea	43.00
92700	Optimum Lime Content - pH Method	D 6276	Ea	235.00
92800	Optimum Lime Content - PI Method		Ea	242.00
94100	Cement Sand Compressive Strength	D 1633	Ea	71.00
94200	Cement Content of Soil-Cement	D 806	Ea	313.00
94300	Sieve Analysis - Base Material	C 136	Ea	95.00
94400	Compressive Strength Treated Base	Tex-120E	Ea	258.00
94500	OMD Standard Compaction, Treated	D 698	Ea	225.00
94600	OMD Standard Compaction, Treated	D 1557	Ea	239.00
95100	Nuclear Density Gauge	D 6938	Hr	10.50

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Subsurface Exploration

Code	Description	Standard	Unit	Current Fee
11010	Soil Boring, Intermittent 3-in. dia. (0 to 50')		Ft	19.00
11020	Soil Boring, Intermittent 3-in. dia. (50' to 100')		Ft	21.00
11030	Soil Boring, Continuous 3-in. (0 to 20')		Ft	21.00
11031	Soil Boring, Continuous 3-in. (20 to 50')		Ft	25.00
11032	Soil Boring, Continuous 3-in. (50 to 100')		Ft	35.00
11040	Soil Boring over 100' (Surcharge)		Ft	7.00
11050	Wash Boring		Ft	9.00
11060	Auger Boring		Ft	10.50
11070	Undisturbed/Split-Spoon in Wash/Auger Borings		Ea	39.00
11071	Piezometer Installation		Ft	16.00
11072	Piezometer Abandonment		Ft	16.00
11080	Grouting of Completed Boring		Ft	10.00
11090	A.T.V. Surcharge		Ft	7.00
11100	Minimum Charge for the Exploration (to be used if charges are less than \$782.00)		LS	782.00
11110	Mobilization/Demobilization		LS	349.00
11120	TDH Cone Penetration Test		Ea	27.00
11130	ATV Mobilization Surcharge		LS	136.00
11140	Portable Rig Drilling (Crew of two)		Hr	177.00
11150	Standby (Crew of Two)		Hr	170.00

General Notes

1. General

- 1.1 All construction materials engineering services including sampling, field and laboratory testing, and inspection services ("Services") performed by Consultant for Fort Bend County Toll Road Authority must be authorized by Fort Bend County Toll Road Authority.
- 1.2 Services not specifically authorized by Fort Bend County Toll Road Authority will not be paid for.
- 1.3 Failure to perform specified services in accordance with Fort Bend County Toll Road Authority requirements may result in cancellation of Consultant's purchase order.

2. Engineering Services

- 2.1 Engineering Services shall be performed by a professional engineer licensed in the State of Texas and employed full-time by the Consultant ("Engineer").
- 2.2 All construction materials engineering reports ("Reports") relating to Services performed by the Consultant shall be reviewed and signed by Consultant's Engineer. The Consultant's Engineer does not need to sign specimen pick-ups or project cancellation reports.
- 2.3 For review of Reports by Consultant's Engineer, Fort Bend County Toll Road Authority will compensate the Consultant at the signing engineer's rate (Project Engineer) for ¼ (0.25) hour of engineering review time for each Report.
- 2.4 Fort Bend County Toll Road Authority shall also compensate Consultant when Consultant's Engineer attends Project-related on-site and progress meetings at the request of the Fort Bend County.
- 2.5 Overtime will not be allowed for any Engineering Service.

3. Field Services

- 3.1 "Sampling" is defined as the process of procuring materials for subsequent testing or examination that is performed by a certified technician with knowledge of appropriate sampling procedures.
- 3.2 "Specimen Pickup" is defined as the process of retrieving "specimens," usually pre-fabricated in the field such as cylinders, beams, or cubes, and transporting those specimens to the laboratory for subsequent testing or examination.
- 3.3 Field Services shall be performed by Consultant's certified engineering technicians in accordance with the Fee Schedule.
 - 3.3.1 A non-certified technician maybe allowed to assist a certified technician on a Project provided two or more technicians are required.
 - 3.3.2 Specimen Pickup shall be performed, whenever possible, as a part of a scheduled field trip or by the full-time technician assigned to the Project.
 - 3.3.3 Specimen Pickup not performed as a part of a scheduled field trip or by the technician assigned to the Project shall be compensated at the technician

rate.

- 3.3.4 Field sieve analysis and lime slurry percent-solids determination shall be performed in the field as part of the field inspection without an additional testing charge.
- 3.3.5 The rates for coring of Portland cement concrete or asphaltic concrete are inclusive of the field representative's time, all equipment, and patching of the core hole with a conventional concrete mixture for concrete or cold-patching asphaltic materials for asphaltic concrete. The rates for coring do not include a Vehicle Charge. Patching with specialty materials (such as non-shrink repair mortar) must be approved in advance by Fort Bend County Toll Road Authority and any approved specialty patching materials will be reimbursed by Fort Bend County Toll Road Authority at cost plus 10%.
- 3.3.6 A minimum of 30-minute unpaid lunch shall be taken by the field technician for work over eight (8) hours unless otherwise approved in writing by the Fort Bend County.
- 3.3.7 Certified technicians shall carry their certification wallet cards with them on the Project.
- 3.4 Fort Bend County Toll Road Authority shall compensate Consultant for travel time between the Consultant's facility and the Fort Bend County Toll Road Authority's Project or other Project-related location. The maximum time compensated for this travel is 1 hour total / roundtrip (30 minutes each way).

4. Laboratory Services

- 4.1 Fees for laboratory tests are inclusive of sample preparation unless specifically noted in this Attachment. Compensation shall not be paid for personnel services and/or materials related to such testing, except as specifically noted in this Attachment.
- 4.2 Unless otherwise requested by Fort Bend County, an aggregate correction factor will not be determined for use in adjusting the aggregate gradation and asphalt content when testing HMAC in accordance with ASTM D6307. Laboratory reports should include a note indicating that an aggregate correction factor was not used.

5. Other Services

5.1 Geotechnical Services

- 5.1.1 All geotechnical borings shall be staked by Consultant and shall be compensated at the rate not to exceed that for a Graduate Engineer.
- 5.1.2 Geotechnical logging shall be performed by a technician certified in soils or a Graduate Engineer or Graduate Geologist. Unless the services of an Engineer or Geologist are approved by Fort Bend County Toll Road Authority in advance, logging shall be compensated at the NICET Level II technician rate. Costs for logging services shall be in addition to fees for geotechnical drilling and sampling services.
- 5.1.3 Geotechnical borings shall be drilled at increments of 5-ft.

5.2 Traffic Control

- 5.2.1 If traffic control is necessary during geotechnical field operations, qualified

personnel or a qualified subcontractor should be engaged to provide traffic control. Proposed use of traffic control must be approved in advance by the Director.

6. Reporting

Consultant shall document all field and laboratory Services in a written report prepared in accordance with Project Specifications and standard methods.

6.1 Reports shall contain the following:

6.1.1 Project Name, Consultant Report number, and Fort Bend County Toll Road Authority Job No.

6.1.2 Personnel name and certification typed or printed legibly.

6.1.3 Time of departure from Consultant's facility.

6.1.4 Time of arrival at Project.

6.1.5 Standby time, if any.

6.1.6 Services requested and performed.

6.1.7 Time of departure from Fort Bend County Toll Road Authority Project.

6.1.8 Time of arrival at Consultant's facility.

6.1.9 Overtime hours, if any.

6.1.10 Appropriate Specification and/or Test Method.

6.1.11 Signature of Engineer reviewing Report.

6.2 Reports shall contain hours of service for each visit to the Fort Bend County Toll Road Authority Project including Specimen Pickup.

6.3 All Reports must be received by the Fort Bend County Toll Road Authority within 14 calendar days of the original date of service or completion of required laboratory tests.

6.4 Final reports presenting strength test results shall be sent to Fort Bend County Toll Road Authority within three (3) business days following the test date.

7.1 Compensation of Consultant for personnel performing sampling, testing, inspection, and traffic control services shall be as stated in the Fee Schedule and shall include reasonable travel time, as agreed to by Fort Bend County, between Consultant's facility and the Fort Bend County Toll Road Authority Project.

7.2 Fees for Services are inclusive of all tools, equipment and consumable supplies needed to perform the subject services, except as specifically noted in this Attachment.

7.3 Fees for Services performed on an hourly basis shall be recorded to the nearest ¼ (0.25) hour and will be compensated at the applicable rate.

7.4 Overtime for field services is applicable for any hours worked over 8 hours per day or over 40 hours per week. No overtime will be paid without prior approval from the Authority.

- 7.5 A minimum charge of four (4) hours for field technician, vehicle, and equipment (where charged on an hourly rate) shall apply to each visit to the Project site or to an authorized off-site location for sampling, observation, inspection, or testing as outlined in the Fee Schedule. The maximum Vehicle Charge shall be eight (8) hours at the rate outlined in the Fee Schedule.
- 7.6 All hourly services invoiced shall be accompanied by the Company representative's signed time sheet or daily report, including the name and classification of the individual. Hourly services shall be invoiced to the nearest 1/4 hour.
- 7.7 A minimum of 30-minute lunch shall be taken for continuous work of eight (8) hours or more on a single Project.
- 7.8 If a technician has departed for the Project, prior to receipt of a cancellation notice by Consultant, Consultant shall be compensated at the applicable technician rate for the time required to Consultant's facility plus applicable Vehicle Charge. A four (4) hour minimum shall apply.
- 7.9 If a technician/inspector is assigned to more than one Fort Bend County Toll Road Authority Project in one day, his or her actual time on both Projects shall be charged (i.e. no minimum charge for both Projects), provided the total time exceeds four (4) hours. All hours invoiced must be supported by copies of Reports and a signed time-sheet or daily activity report sheets, which contains the name of the personnel and their certification, shall be signed by third-party inspector or contractor, if available.
- 7.10 Consultant may be reimbursed by Fort Bend County Toll Road Authority for services of a qualified subcontractor or consultant, authorized in advance by the Fort Bend County, at cost plus 10%.
- 7.11 Reproduction charges shall be compensated at current commercial rates.
- 7.12 All reimbursable expenses of Consultant shall be supported by documentation acceptable to the Fort Bend County. Reimbursables such as photographs, reproduction material, delivery, background checks, safety training/orientation, traffic control, parking, and badging, etc., shall be invoiced and reimbursed at cost plus 10%. Receipts for reimbursable expenses must be submitted with the Consultant's invoice for the reimbursable expense.

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 30 days prior written notice of any 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 \$1,000,000 each employee for Occupational Disease, \$1,000,000 policy limit for Occupational Disease; and Employer's Liability of \$1,000,000 each accident.
- b. Commercial General Liability insurance including coverage for Products/Completed Operations, Blanket Contractual, 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 \$2,000,000 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."