

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 Aviles Engineering Corporation, (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, County desires that Contractor provide certain professional engineering services, including construction materials testing for the construction of a four-lane concrete boulevard between FM 1463 and Spring Green Boulevard, under the Fort Bend County 2013 Mobility Bond Program – Crossover Road – Project No. 13307 (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 Services to County as defined in Contractor's Proposal Number 18-21 dated June 6, 2018, 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 sixty-nine thousand nine hundred fifty-eight dollars and 85/100 (\$69,958.85). In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without 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 and two (2) original hard copies of invoices 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 sixty-nine thousand nine hundred fifty-eight dollars and 85/100 (\$69,958.85), 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 sixty-nine thousand nine hundred fifty-eight dollars and 85/100 (\$69,958.85).

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 June 1, 2019. 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. 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.

10.1.2 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.

10.1.3 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.

10.1.4 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, excluding Professional Liability, 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 NEGLIGENT ACT, 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: Aviles Engineering Corporation
Attn: Shane C. Ressman, Vice President
5790 Windfern
Houston, Texas 77041

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 2270 Texas Government Code: By signature below, Contractor verifies 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.

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

AVILES ENGINEERING CORPORATION

Robert E. Hebert, County Judge

~~Ronald E. Ortwerth, Senior Vice President~~

Shane Resman, Vice President

6-22-18

Date

Date

ATTEST:

Laura Richard, County Clerk

APPROVED:



Richard W. Stolleis, 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



June 6, 2018

Mr. Stacy Slawinski, PE
Fort Bend County Engineering Department
301 Jackson St.
Richmond, TX 77469
Ph: 281-633-7508
Email: stacy.slawinski@fortbendcountytexas.gov

Re: Construction Materials Testing and Inspection Services on
Crossover Road Improvements from FM 1463 to Katy Flewellen Rd.
Fort Bend County, Precinct 3, Mobility Project No. 13307
CSJ 0912-34-196
Our Proposal Number: 18-21

To Whom It May Concern:

In response to your request, Aviles Engineering Corporation (AEC) has prepared the attached estimate for providing Construction Materials Engineering, Testing and Inspection Services on the above referenced project for your review.

AEC proposes to provide experienced technical personnel to perform testing and inspection services in general accordance with project requirements and specifications, ASTM Standards or other applicable procedures. AEC also proposes that the work be accomplished on a unit price basis in accordance with the attached Schedule of Services and Fees. AEC's Schedule of Services and Fees is enclosed herewith and is incorporated into this document. AEC's fees would be determined by the actual amount of technical time expended for this project and the amount of laboratory testing performed.

Aviles Engineering Corporation appreciates the opportunity to offer its services to your project and looks forward to working with you during the construction phase.

Respectfully submitted,
Aviles Engineering Corporation
(TBPPE Firm Registration No. F-42)



Shane Rossman, P.E.
Vice President

Schedule of Services & Fees
Cost Estimate (3 Pages)

5790 Windfern • Houston, Texas 77041 • (713) 895-7645 • (713) 895-7943

Aviles Engineering Corporation
Schedule of Services and Fees * Construction Materials Testing

LABORATORY TESTING SERVICES

Concrete and Aggregates

Laboratory testing of concrete, grout, mortar and lightweight roof fill cylinders, beams and cubes delivered to our laboratory in accordance with ASTM procedures and project specifications:

a. Concrete Compression Test	Each	\$ 17.00
b. Reserves Not Tested	Each	\$ 17.00
c. Lightweight Concrete Compression Test.....	Each	\$ 17.00
d. Flexural Strength of Concrete Test (Beams)	Each	\$ 27.00
e. Compressive Strength of Mortar or Grout (2" x 2" x 2")	Each	\$ 23.00
f. Compressive Strength of Grout (3" x 6")	Each	\$ 23.00
g. Compressive Strength of Grout, prism.....	Each	\$ 46.67
Sieve Analysis of Aggregates	Each	\$ 54.00
Washed Sieve Analysis on Flexible Base Materials.....	Each	\$ 95.00
Liquid Limit & Plasticity Index of - No. 40 from Flexible Base Materials.....	Each	\$ 65.00
Abrasion Test of Aggregates by Los Angeles Machine	Each	\$ 208.00
Density of Lightweight Concrete Cylinders.....	Each	\$ 81.00
Testing of Aggregates for Mix Design (Sieve Analysis, Absorption, Specific Gravity, Unit Weight)	Will Quote Upon Request	
Specific Gravity & Absorption of Aggregate	Each	\$ 99.00
Moisture Content of Aggregate.....	Each	\$ 9.00
Concrete Mix Design Review for Compliance to ACI or ASTM Standards	Will Quote Upon Request	
Preparation and Testing of Cores.....	Each	\$ 78.00

Soils

Moisture/Density Relationship of Soil (Proctor Test):

a. ASTM D 698 Method A or B	Each	\$ 204.00
b. ASTM D 1557 Method A or B	Each	\$ 218.00
c. ASTM D-698 & D-1557, Method C.....	Each	\$ 218.00
d. TxDOT Test Method Tex-113-E.....	Each	\$ 225.00
e. ASTM Procedure on Lime or Cement Treated Soils (D 698).....	Each	\$ 225.00
f. ASTM Procedure on Lime or Cement Treated Soils (D 1557)	Each	\$ 239.00
Atterberg Limits Determination (PI).....	Each	\$ 62.00
Lime Series Curve, pH Method	Each	\$ 235.00
Material Finer Than #200 Sieve	Each	\$ 48.00
Sieve Analysis on +#200 Sieve Material.....	Each	\$ 57.00
Bearing Ratio Test (CBR), ASTM D-1883, per point (Does not include moisture/density relationship)	Each	\$ 215.00
Permeability Test:		
a. Falling Head or Constant Head	Each	\$ 223.00
c. Remolded Sample	Each	\$ 60.00
Organic Content	Each	\$ 60.00

LABORATORY TESTING SERVICES, continued

Asphaltic Concrete Testing

a. Molding Specimens (3 Specimens).....	Per Set	\$ 63.00
b. Density (3 Specimens)	Per Set	\$ 54.00
c. Stability (3 Specimens)	Per Set	\$ 95.00
d. Extraction and Gradation (Ignition).....	Each	\$ 169.00
e. Theoretical Specific Gravity	Each	\$ 91.00
Thickness Determination of Asphaltic Concrete Cores.....	Each	\$ 8.00
Density Determination of Asphaltic Concrete Cores.....	Each	\$ 18.00

Asphaltic Concrete Mix Design Review..... Will Quote Upon Request

Other Items

Compressive Strength of Cement Stabilized Sand or Soil Cement.....	Each	\$ 71.00
Comp. Str. - Cement or LFA Stabilized Bases or Soils (Modified Tex-120-E)	Each	\$ 258.00
Splitting Tensile Strength of Concrete.....	Each	\$ 109.00
Compressive Strength of Masonry Prisms.....	Each	\$ 136.00
Thickness Testing of Concrete or Asphaltic Concrete Cores (9 Point)	Each	\$ 13.00

FIELD TESTING SERVICES

Engineering Technician to Perform:

-Concrete Placement Inspection and testing
-Concrete Batch Plant Inspection
-Cylinder/Cube/Beam Pick Up
-Proofrolling Observation
-Concrete Placement and/or Batch Plant Inspection
-Drilled Pier, Pile and/or Foundation Inspection
-Post Tension Inspection
-Soil Cement or Lime Stabilization Inspection
-Field Compaction Testing and Observation
-Laboratory Technician
-Masonry Mortar, Grout or Prism Testing or Inspection
-Base Plate Inspection and Non-Shrink Grout Testing
-Sample Pick Up

Engineering Technician (Minimum 4 Hours).....	Per Hour	\$ 65.00
Overtime	Per Hour	\$ 97.50

Concrete Pavement Cores (Minimum Fee \$338.00)

6 Inches Thick or Less, 4 Inch Diameter Bit	Per Core	\$ 105.00
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Additional Thickness -- (6" to 12") = \$9.00 per inch; (Over 12") = \$12.00 per inch

Coring of Structural Concrete or Core Diameters other than 4" Will Quote Upon Request

FIELD TESTING SERVICES, continued

Asphaltic Concrete Pavement Cores (Minimum Fee \$338.00)

a. 6 Inches Thick or Less, 4 Inch Diameter	Per Core	\$ 930.00
b. Additional Thickness over 6"	Per Inch	\$ 8.00
Reinforcing Steel Inspection (4 Hr. Min.)	Per Hour	\$ 77.00
Overtime	Per Hour	\$ 115.50
Structural Steel Inspection (4 hr. Min.)	Per Hour	\$ 91.00
Overtime	Per Hour	\$ 136.50

Other Services

Use of Nuclear Density Gauge (4 Hour Minimum)	Per Hour	\$ 10.50
Fireproofing -- Cohesion / Adhesion Test	Each	\$ 29.00
Fireproofing -- Density Test	Each	\$ 38.00
Floor Moisture Kit	Each	\$ 60.00
UT Equipment	Per Day	\$ 91.00
UT Couplant (Minimum Charge of 1 Pint)	Per Pint	\$ 30.00
Magnetic Particle Yoke	Per Day	\$ 34.00
Magnetic Powder (Minimum Charge 0.5 Pounds)	Per Pound	\$ 30.00
Use of James R-Meter	Per Day	\$ 75.00
Solids Content of Lime Slurry - Field	Per Test	\$ 43.00
Skidmore Wilhelm	Per Day	\$ 136.00
Field Sieve Analysis	Each	\$ 12.00
Vehicle Charge (4 Hour Minimum)	Per Hour	\$ 10.00

Engineering Services and Management

Principal or Chief Engineer	Per Hour	\$ 206.00
Senior Engineer	Per Hour	\$ 183.00
Project Engineer	Per Hour	\$ 149.00
Graduate Engineer, Project Manager	Per Hour	\$ 101.00
NICET Level IV	Per Hour	\$ 84.00
NICET Level III	Per Hour	\$ 75.00

Remarks

- All hours are portal to portal from 5790 Windfern, Houston, Texas. Fractions of hours will be billed as whole hours. Overtime is classified as all hours worked over eight (8) hours per day or hours worked before 6:00am, after 6:00 pm weekdays and any hours worked on Saturdays, Sundays or Holidays. If a special trip is made just to pickup test cylinders, the minimum charge will be lowered to 2 hours for the technician.
- A mileage surcharge rate of \$0.585 per mile will apply for travel exceeding 100 miles per day. Commercial travel and subsistence costs will be invoiced at cost + 15%.
- Airport badging, safety training courses and drug screen testing will be invoiced at applicable hourly rates. The drug screen and safety course fees will be invoiced at cost + 15%.
- Project Engineer / Manager to schedule and supervise personnel and evaluate and review reports will be billed at a minimum of 0.2 hours per report issued.
- Laboratory testing requiring overtime, weekend or holiday work will be invoiced at applicable test rate plus technician overtime charges.
- Services and fees not listed will be quoted upon request.

CONSTRUCTION MATERIALS TESTING & INSPECTION ESTIMATE
Crossover Road Improvements from FM 1463 to Katy Flewellen Rd.
Fort Bend County, Precinct 3
Mobility Project No. 13307

Reinforced Concrete Pipe and Box Inspection (TxDOT DMS 7300)

Reinforced concrete pipe inspection will be provided unless the RCP is previously approved and stamped by TxDOT or by the TxDOT approved fabricator specific stamp. There will be 1,060 linear feet of 24" and 36" RCP and 2,553 linear feet of 5' x 3' and 5' x 4' RCB. AEC estimates three (3) trips for pipe inspection.

<u>Description of Services</u>	<u>Quantity</u>	<u>Unit Fee</u>	<u>Unit</u>	<u>Total</u>
Engineering Technician	18	\$ 65.00	hour	\$ 1,170.00
Vehicle Charge	18	\$ 10.00	hour	\$ 180.00
Project Engineer	0.75	\$ 149.00	hour	\$ 111.75
		Subtotal =	\$	1,461.75

Soils Inspection

Soils Inspection will be provided per the project specifications. The inspection and testing of the utility bedding and backfill will include field density testing for 1,060 linear feet of 24" and 36" RCP, 2,553 linear feet of 5' x 3' and 5' x 4' RCB and various inlets, junction boxes and manholes. It will also include 8" lime flyash stabilized subgrade (21,456 yd³). Prior to stabilization of existing soils for paving subgrade, AEC will perform proofrolling inspection. CSS specimens will also be sampled for compressive strength on a weekly basis. Samples to determine the moisture density relationships (MDR) and other soil constants will be also obtained. AEC estimates forty (40) trips for inspection and testing.

<u>Description of Services</u>	<u>Quantity</u>	<u>Unit Fee</u>	<u>Unit</u>	<u>Total</u>
Engineering Technician	320	\$ 65.00	hour	\$ 20,800.00
Engineering Technician OT	80	\$ 97.50	hour	\$ 7,800.00
Nuclear Density Equipment Rental	400	\$ 10.50	hour	\$ 4,200.00
Vehicle Charge	400	\$ 10.00	hour	\$ 4,000.00
Optimum Lime Content (pH)	0	\$ 235.00	each	\$ -
OMD Lime FA / Cement Stab. Soil, (ASTM D558)	5	\$ 225.00	each	\$ 1,125.00
OMD Standard Compaction, (ASTM D698)	3	\$ 204.00	each	\$ 612.00
Atterberg Limits, (ASTM D4318)	16	\$ 62.00	each	\$ 992.00
Mech. Sieve through #200	3	\$ 57.00	each	\$ 171.00
Percent Passing #200 Sieve, (ASTM D1140)	3	\$ 48.00	each	\$ 144.00
Compressive Strength of CSS	20	\$ 71.00	each	\$ 1,420.00
Project Engineer	22.8	\$ 149.00	hour	\$ 3,397.20
		Subtotal =	\$	44,661.20

Construction Materials Testing and Inspection Estimate, continued

Concrete Inspection

Concrete Inspection will be provided per the project specifications. It will include the inspection and testing of concrete for the 19,516 sq. yds. of 8" pavement, 13,380 ft. of curb, 117 sq. yds. of 7" driveways, and various placements for slope paving, flowable fill, directional islands, median noses and traffic signal pole foundations.

Coring will be performed as follows (HC Item 360): The Engineer will perform 1 thickness test consisting of 1 reading at approximately the center of each alternate lane every 500 feet or fraction thereof. AEC estimates eighteen (18) trips for concrete inspection.

<u>Description of Services</u>	<u>Quantity</u>	<u>Unit Fee</u>	<u>Unit</u>	<u>Total</u>
Engineering Technician	154.5	\$ 65.00	hour	\$ 10,042.50
Engineering Technician OT	20	\$ 97.50	hour	\$ 1,950.00
Vehicle Charge	174.5	\$ 10.00	hour	\$ 1,745.00
Compressive Str. Cylinder Test, (ASTM C39)	160	\$ 17.00	each	\$ 2,720.00
Concrete Coring (4" Dia, up to 6" Thickness)	16	\$ 105.00	each	\$ 1,680.00
Additional Thickness (6" - 12")	32	\$ 9.00	inch	\$ 288.00
Measuring Thickness of Concrete Cores	16	\$ 13.00	each	\$ 208.00
Project Engineer	8.3	\$ 149.00	hour	\$ 1,236.70
Subtotal =				\$ 19,870.20

Asphalt Inspection

Asphalt Testing will be provided per the project specifications for the FM 1463 Transition. It will include the sampling and testing of the 2.5" Type D (112 tons) and 8" Base (360 tons). ***AEC anticipates the HMAC to be constructed as Type B (HC Items 250 & 340): Cores shall not be taken for densities unless otherwise directed by the Engineer. Cores will be used to verify depth as required.*** The HMAC mixture will be sampled for each 400 (cumulative) tons of production as required by HC Items 250 and 340. AEC estimates two (2) days to place the HMAC.

<u>Description of Services</u>	<u>Quantity</u>	<u>Unit Fee</u>	<u>Unit</u>	<u>Total</u>
Engineering Technician	16	\$ 65.00	hour	\$ 1,040.00
Engineering Technician OT	4	\$ 97.50	hour	\$ 390.00
Nuclear Density Equipment Rental	20	\$ 10.50	hour	\$ 210.00
Vehicle Charge	20	\$ 10.00	hour	\$ 200.00
Molding Specimens 3/Set (TEX-206-F)	2	\$ 63.00	set	\$ 126.00
Bulk Density - Lab Molded (TEX-207-F)	2	\$ 54.00	set	\$ 108.00
HVEEM Stability (TEX-208-F)	2	\$ 95.00	set	\$ 190.00
Extraction/Gradation by Ignition (ASTM D 6307)	2	\$ 169.00	each	\$ 338.00
Maximum Theoretical Specific Gravity (TEX-227F)	2	\$ 91.00	each	\$ 182.00
Asphalt Coring (4" Dia to 6" Thickness)	2	\$ 93.00	each	\$ 186.00
Asphalt Coring (4" Dia Over 6" Thickness)	4	\$ 9.00	each	\$ 36.00
Measuring Thickness of Asphalt	2	\$ 8.00	each	\$ 16.00
Project Engineer	1.8	\$ 149.00	hour	\$ 268.20
Subtotal =				\$ 3,290.20



Construction Materials Testing and Inspection Estimate, continued

Project Management

Project management will be provided. It may include one (1) pre-construction meeting.

<u>Description of Services</u>	<u>Quantity</u>	<u>Unit Fee</u>	<u>Unit</u>	<u>Total</u>
Sr. Project Engineer, PE	3.5	\$ 183.00	hour	\$ 640.50
Vehicle Charge	3.5	\$ 10.00	hour	\$ 35.00
Subtotal =				\$ 675.50

ESTIMATED TOTAL FOR SERVICES AND TESTING = \$69,958.85

NOTES & ASSUMPTIONS:

- Project Duration: 125 Days
- HMAC and Concrete Mix Design Reviews are not included within the estimate.
- Contractor's Bid: \$2,460,000.00

Testing Budget, % of Construction Cost Estimate
2.8%