

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

**FIRST AMENDMENT TO
PROFESSIONAL ENGINEERING SERVICES AGREEMENT
OLD RICHMOND ROAD BRIDGE AT RED GULLY**

THIS FIRST AMENDMENT is made and entered into by and between FORT BEND COUNTY, TEXAS, a public body corporate and politic of the State of Texas acting by and through the Fort Bend County Commissioners Court (hereinafter referred to as "County") and AIA ENGINEERS, LTD., (hereinafter referred to as "Engineer,") authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, on or about July 24, 2009, County and Engineer entered a Professional Engineering Services Agreement, hereinafter referred to as "the Agreement," for the improvements to the Old Richmond Road Bridge at Red Gully hereinafter referred to as the "Project;" and,

WHEREAS, County and Engineer desire to amend the Agreement for construction phase services to entail shop drawing review and field visits/meetings not included in Engineer's original scope of services for the Project, as further described in Exhibit A and as set forth below.

NOW, THEREFORE, in consideration of the foregoing, the Agreement between County and Engineer is hereby amended as follows:

AGREEMENT

1. Section 2.01 the Agreement is hereby amended as follows:

"For and in consideration of the services rendered by Engineer, and subject to the limit of appropriation under Section XVI, County shall pay to Engineer an amount not to exceed \$113,786.00, including all reimbursable expenses, if any."

2. Section 3.01 of the Agreement is hereby amended as follows:

"This Agreement shall become effective upon execution of the last party and shall terminate on or before May 7, 2011."

3. Section XVI of the Agreement is hereby amended as follows:

16.01 "Prior to the execution of this Agreement, Engineer has been advised by County, and Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence to this Agreement, that County shall have available the total maximum sum of \$113,786.00, including reimbursable expenses, if any, specifically allocated to fully discharge any and all liabilities which may be incurred by County."

- 16.02 “Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Engineer may become entitled to hereunder and the total maximum sum that County shall become liable to pay to Engineer hereunder shall not under any conditions, circumstances or interpretations thereof exceed the sum of \$113,786.00 for described scope of services in all executed Work Authorizations.”
4. Attached hereto is Attachment A-2, A-3, A-4, and B-2 incorporated by reference as if set forth therein verbatim for all purposes.
 5. Except as modified herein, the Agreement remains in full force and effect and has not been modified or amended.
 6. If there is a conflict between this Amendment and the Agreement, the provisions of this Amendment shall prevail.

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EXECUTION

This Agreement shall not become effective until executed by County.

FORT BEND COUNTY:

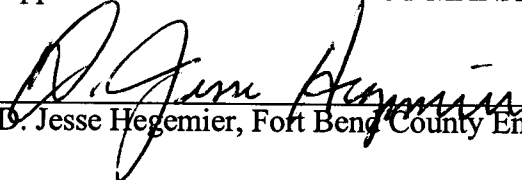

Robert E. Hebert, County Judge

8-24-10
Date

Attest:

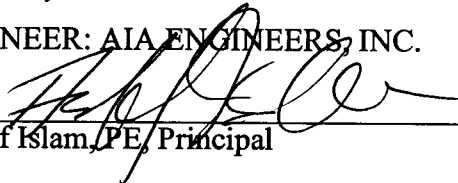

Dianne Wilson, County Clerk

Approved: COUNTY PROJECT MANAGER


D. Jesse Hegemier, Fort Bend County Engineer

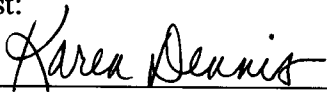
8/16/10
Date

ENGINEER: AIA ENGINEERS, INC.


Ashraf Islam, PE, Principal

8/12/2010
Date

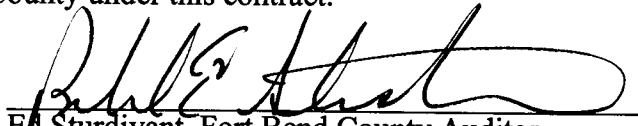
Attest:


Karen Dennis

MER:Engineering Services Agreement.AIA.3791-Amendment

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$113,786.00 to accomplish and pay the obligation of the Fort Bend County under this contract.


Ed Sturdivant, Fort Bend County Auditor

Attachments A-2, A-3, A-4 and B-2

ATTACHMENT A-2
FEE SCHEDULE FOR
CONSTRUCTION PHASE SERVICES FOR
OLD RICHMOND ROAD BRIDGE
AT RED GULLY
FORT BEND COUNTY, TEXAS

I. Fee Proposal

AIA proposes a time and materials fee of **\$33,181.00** for the scope of work identified in Attachment B-2.

ADDITIONAL SERVICES AND CHARGES

The Engineer, upon prior written authorization from the County, shall furnish the following additional services, and the County shall compensate the Engineer as set forth below. Subcontract Expense is that incurred by the Engineer in employment of outside firms for material testing and shall incur a 10% markup for management of subconsultant.

<u>SERVICES</u>	<u>BASIS OF COMPENSATION</u>
A. Construction Phase Services	Time and materials as shown on Attachment A-3 not to exceed \$10,000.
B. Material Testing (Terracon)	Time and materials as shown on Attachment A-3 not to exceed \$22,181 (includes 10% markup for management of subconsultant)
F. Prepare "record drawings" utilizing red lined drawings provided by the Contractor of significant changes made in the Work during the construction of the Project.	Time and materials as shown on Attachment A-3 not to exceed \$1,000.

Additional services total of \$33,181.00.



ATTACHMENT A-3

AIA 2010 Rate Schedule

CLASSIFICATION	RATE
Project Manager	\$ <u>155.00</u> hour
Senior Engineer	\$ <u>135.00</u> hour
Project Engineer	\$ <u>121.00</u> hour
Engineering Technician	\$ <u>85.00</u> hour
Cadd Operator	\$ <u>75.00</u> hour
Clerical	\$ <u>55.00</u> hour

ATTACHMENT A-4

BUDGET ESTIMATE FORT BEND COUNTY BID 10-097 OLD RICHMOND ROAD OVER RED GULLY TERRACON COST ESTIMATE P92100997				
Service	Quantity	Unit	Unit Rate	Estimate
Personnel				
Project Manager, Sr. Engineer, P.E.	20	hour	\$123.00	\$2,460.00
Engineering Technician, Regular Time (NICET II)	144	hour	\$50.00	\$7,200.00
Engineering Technician, Overtime (NICET II)	14	hour	\$75.00	\$1,050.00
Engineering Technician, Regular Time (ACI I)	24	hour	\$44.00	\$1,056.00
Engineering Technician, Overtime (ACI I)	0	hour	\$66.00	\$0.00
Vehicle Charge	182	hour	\$7.50	\$1,365.00
Earthwork				
Moisture Density Relationship Soil (ASTM D698)	1	each	\$175.00	\$175.00
Moisture Density Relationship Stabilized Soil (ASTM D698)	0	each	\$193.00	\$0.00
Moisture Density Relationship Base (ASTM D1557)	1	each	\$187.00	\$187.00
Atterberg Limits (ASTM D4318)	2	each	\$53.00	\$106.00
Percent Passing #200 Sieve Analysis (ASTM D1120)	2	each	\$41.00	\$82.00
Sieve Analysis, Base (ASTM C136)	2	each	\$82.00	\$164.00
Cement Sand Compressive Strength (ASTM D1633)	8	each	\$61.00	\$488.00
Optimum Lime Content - PI Method	0	each	\$208.00	\$0.00
Nuclear Density Gauge	48	hour	\$9.00	\$432.00
Reinforced Cast-in-Place Concrete Pavement				
Compressive Strength Concrete Cylinders	56	each	\$15.00	\$840.00
Concrete Coring (ASTM C42)	0	each	\$90.00	\$0.00
Measuring thickness of Concrete Cores (ASTM C174)	0	each	\$11.00	\$0.00
Asphalt Pavement				
Sieve Analysis, Fine & Coarse Aggregates (TEX 200F)	4	each	\$46.00	\$184.00
Abrasion Resistance, Coarse Aggregates (ASTM C131)	4	each	\$179.00	\$716.00
Specific Gravity, Fine & Coarse Aggregates (ASTM C128 & C127)	4	each	\$80.00	\$320.00
Sand Equivalent, Fine Aggregates (ASTM D2419)	4	each	\$56.00	\$224.00
Atterberg Limits (ASTM D4318)	4	each	\$53.00	\$212.00
Deleterious Materials (TEX 217F)	4	each	\$80.00	\$320.00
Decantation (TEX 217F)	4	each	\$80.00	\$320.00
Extraction / Gradation (TEX 210F)	4	each	\$174.00	\$696.00
Hveem Stability (TEX 208F)	4	set	\$82.00	\$328.00
Bulk Density - Lab Molded Specimen or Cores (TEX 207F)	4	set	\$46.00	\$184.00
Molding Specimens (TEX 206F)	4	set	\$54.00	\$216.00
Maximum Theoretical Specific Gravity (TEX 227F)	4	each	\$78.00	\$312.00
Asphalt Coring (4" diameter)	6	each	\$80.00	\$480.00
Measuring thickness of Asphalt Cores	6	each	\$8.00	\$48.00
ESTIMATED PROJECT BUDGET				\$20,165

ATTACHMENT B-2

SUPPLEMENTAL SCOPE OF WORK FOR ENGINEERING SERVICES FOR OLD RICHMOND ROAD BRIDGE AT RED GULLY FORT BEND COUNTY, TEXAS

I. Construction Phase Services

AIA Engineers, LTD. (AIA) in association with Terracon is pleased to submit this proposal to provide construction phase services, material testing and record drawings for Old Richmond Road Bridge at Red Gully in Fort Bend County.

II Scope of Services

AIA is proposing the following Scope of Services for this phase of the project.

A. Construction Phase Services

1. Review shop drawings submitted by contractor
2. Provide engineering services as necessary for modifications to design during construction as a result of unexpected field conditions
3. Attend monthly progress meetings

B. Material Testing

1. Earthwork Observations:
 - a. Provide an engineering technician to sample select fill, trench backfill, and base materials. Prepare and test the samples for classification by the Atterberg Limits (ASTM D4318).
 - b. Test soil samples for moisture-density relationship (ASTM D698, ASTM D1557, and ASTM D558).
 - c. Sample cement-sand backfill for utility trenches, mold specimens, and perform compressive strength tests in the laboratory (ASTM D1633)
 - d. Observe proofrolling operations and perform density tests of select fill, trench backfill, and base materials using the nuclear method (ASTM D6938) to determine the moisture content and percent compaction of the soil materials.
2. Foundation Observations and Testing:
 - a. Provide a field representative to observe the driving process of pre-cast piles. Document the pile type, cushion, driving cap, bearing load, hammer type, rated energy, hammer speed, pre-drilled depth, drilled diameter, piston weight, and the number of blows needed to drive the pile each foot.
3. Rebar Observation and Testing:
 - a. Observe reinforcing steel prior to concrete placement to include rebar

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- size, spacing and configuration. Contractor/County to provide notification a minimum of 24 hours prior to concrete placement.
4. **Cast-in-Place Concrete Observation and Testing:**
 - a. Sample and test the fresh concrete for each mix. Perform test including slump, air content, concrete temperature, and cast test specimens. (ASTM C172, C31, C143, C173, and C1064). It is the Contractor's responsibility to maintain the initial curing temperature of the concrete test specimens.
 - b. Concrete will be sampled at a frequency of 1 set of 4 cylinders every 150 cubic yards for concrete paving and 1 set of 4 cylinders every 50 cubic yards for structural concrete. Contractor shall provide a copy of the mix design prior to placement of the concrete.
 - c. Perform compressive strength tests of concrete test cylinders cast in the field (ASTM C1231, C39). One set of four concrete cylinders will be prepared and two cylinders will be test at 7 and 28 days.
 - d. Provide an engineering technician to observe the concrete batching operation, document the truck scale calibration date, and perform concrete slump tests on a periodic basis.
 5. **Asphalt Pavement Observations and Testing:**
 - a. Sample asphalt materials during placement, prepare, and test the samples for asphalt content, gradation, bulk specific gravity of lab molded specimens, theoretical maximum specific gravity, and Hveem stability and density. One sample will be obtained for every 300 tons of asphalt placed each day.
 - b. Perform in-situ nuclear density test to assist in determining an asphalt rolling pattern, when requested by the contractor.
 - c. Perform in-situ nuclear density test to determine the relative percent compaction of the asphalt at the frequency specified.
 - d. Obtain cores from the pavements and perform thickness measurements and bulk density within one day of placement.
 6. County/Contractor understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed.
 7. AIA and Terracon shall not be responsible for the quality and completeness of the County's Contractor's work or their adherence to the project documents. The performance of testing and observation services shall not relieve Contractor in any way from its responsibility for defects discovered in its work, or create a warranty or guarantee. AIA and Terracon will not direct the work performed by Contractor or its subcontractors and is not responsible for their means and methods.

C. Record Drawings

1. Obtain as-builts from the Contractor to produce record drawings.

D. Coordination

1. Coordinate field and laboratory testing.

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2. Verify quality control monitoring and testing is in accordance with the Project Documents.
3. Review laboratory and field test reports and concrete mixes.
4. Inform the County's representative and the Contractor of failing results.
5. Field testing services will be provided on an "as requested" basis when scheduled by the County/Contractor representative. A minimum of 24 hours notice is required to properly schedule these services. To schedule, please contact Terracon's dispatcher at (713)690-2258. The dispatch office hours are from 7:00am to 5:00pm. Messages left after business hours will be checked the following business day. Neither AIA nor it's subconsultant, Terracon shall be held responsible for tests not performed as a result of a failure to schedule these services or any subsequent damage caused as a result of a lack of testing.
6. Test results will be distributed via e-mail.
7. County/Contractor shall secure all necessary site related approvals, permits, licenses, and consents necessary to perform services.

E. Compensation

1. Services will be on a times and materials not to exceed basis per hourly rates shown on Attachment A-3 (AIA) and Attachment A-4 (Terracon).
2. For services provided on an "as requested" basis, overtime is defined as all hours in excess of eight hours per day, outside of the normal hours of 7:00 am to 6:00 pm Monday through Friday, and all hours worked on weekends and holidays. Overtime rates will be 1.5 times the hourly rate quoted. A four hour minimum charge is applicable to all trips made to provide testing, observation and consulting services. The minimum charge is not applicable for trips to the project site for sample pickup only. All labor, equipment and transportation charges are billed on a portal basis from the office.