

**SUPPLEMENTAL AGREEMENT NO. 1  
TO  
AGREEMENT OF JANUARY 19, 2011  
FOR  
ENGINEERING SERVICES for  
Fort Bend Grand Parkway Toll Road, Segment D**

This Supplemental Agreement is made and entered into this 20<sup>th</sup> day of April, 2011, and modifies the ENGINEERING SERVICES AGREEMENT made with AECOM Technical Services, Inc., dated January 19, 2011 for engineering services for the Fort Bend Grand Parkway Toll Road, Segment D.

The agreement is hereby modified as follows:

1. The first sentence of Section 2.a is replaced with the following sentence:

“The Maximum Compensation under this contract is \$566,346.48.”

2. The second paragraph of Section 2.a is replaced with the following paragraph:

“Compensation for performance of services within the Scope of Services described in Attachment A will be as follows: The lump sum compensation shall be increased by \$26,477.79, for the additional work shown in Attachment A. The maximum amount payable under this agreement shall not exceed \$566,346.48, as shown in Attachment B. Progress payments for work detailed in Attachment A will be made when the Engineer has attained a level of completion equal to or greater than the agreed upon milestones of completion in the reasonable opinion of FBGPTRA.”

3. The Scope of Services shown in Attachment A shall be expanded to include Exhibit A-1, attached hereto.
4. The Compensation for Scope of Services shown in Attachment B shall be expanded to include Exhibit B-1, attached hereto.

**[Remainder of page intentionally left blank.]**


Supplemental Agreement No. 1  
To Agreement of January 19, 2011

IN WITNESS WHEREOF, this Supplemental Agreement is hereby executed as of the date first set forth above.


FORT BEND GRAND PARKWAY TOLL ROAD  
AUTHORITY, a local government Texas  
Corporation

By:   
James Condrey  
Chairman, Board of Directors

ATTEST:

By:   
Melody Hess  
Asst. Secretary, Board of Directors

AECOM Technical Services, Inc.  
ENGINEER

By:   
Name: CRAIG HESTER  
Title: VICE PRESIDENT

**SUPPLEMENTAL AGREEMENT NUMBER 1  
Fort Bend Grand Parkway Toll Road, Segment D, Section 4**

**EXHIBIT A-1  
ATTACHMENT A  
SCOPE OF SERVICES**

**GENERAL DESCRIPTION**

The drainage design tasks for the project were originally intended to include drainage facilities to carry flow from the proposed roadway mainlanes to the existing trunk line constructed along with the frontage roads. During the analysis of the existing facilities, as required by the original scope of work, it was determined that the east trunk line was under-capacity and would need to be designed to meet the current requirement of a 10-year design frequency. The original systems were designed for a 5-year design frequency. It was determined that the existing west trunk line had sufficient capacity for the 10-year storm.

Additional work is also required to provide mitigation for the 100-year developed frequency due to increased impervious cover created by addition of the mainlanes.

The following represents the additional tasks that will be required as a result of the change to a 10-year frequency and for 100-year mitigation.

**1) ROADWAY**

No additional roadway sheets are required to be included in the plans. The following roadway sheets shall be modified due to providing linear mitigation facilities between the mainlanes and the frontage roads.

- a) Proposed Typical Sections
- b) Roadway Plan and Profile
- c) Roadway Cross Sections

**2) DRAINAGE**

- a) Modify the design to include a new trunk line to carry flow for the mainlane structures included in the original scope of work.
- b) Design and analyze the proposed storm sewer trunk line utilizing the WINSTORM program and incorporate output to plan set. Storm sewer computation sheets will show all three trunk lines with the 10-year design frequency.
- c) Prepare storm sewer plan/profile drawings for proposed mainlane storm sewer system. Identify and resolve potential utility conflicts during project design. No separate culvert layouts will be required for this project. Drawings will be prepared on 11"X 17" sheets at horizontal scale of 1"=100' and vertical scale of 1"=10'.
- d) Determine the required mitigation volume by comparing the 100-year developed frequency to the 100-year undeveloped frequency for the entire system. An additional sheet will be required to document the 100-year design.

**3) QUANTITY TAKE-OFFS AND QUANTITY SUMMARIES**

- a) Additional quantities will be calculated and the storm sewer summary sheet will be modified accordingly.

**4) PROJECT MANAGEMENT**

- a) Additional coordination will be required internally among the Subconsultant's staff, with the Engineer, and with the PMC for the new 10-year design and the 100-year detention requirements.

**5) PROJECT SCHEDULE**

- a) The project milestones have not been revised.

**6) TASKS NOT INCLUDED**

- a) Design of frontage road trunk lines to replace the existing facilities.
- b) Detention layout sheets.

**SUPPLEMENTAL AGREEMENT NO. 1**

Fort Bend Grand Parkway Toll Road, Segment D, Section 1

**EXHIBIT B-1  
ATTACHMENT B**

**COMPENSATION FOR SCOPE OF SERVICES**

Task Description	Sheet Count	Sr Project Manager	Project Manager	Sr Project Engineer	Project Engineer	EIT	Sr Designer/ Sr CADD	Designer/ CADD	Admin/ Clerical	Total Labor Hours	Hours per Sheet	Burdened Labor Cost
Loaded Labor Hour Rate	-	\$210.90	\$181.71	\$181.71	\$146.01	\$116.82	\$110.31	\$86.64	\$81.12			
<b>AECOM</b>												
Modify Proposed Typical Sections	2		1		2		2	4		9	5	
Modify Roadway Plan and Profile	2		1		2		2	4		9	5	
Modify/Additional Geopak, Cross section and earthwork			1		5	25		8		39		
Project Management		4							2	6		
Coordination with SPI		4			4				2	10		
	4	8	3	0	13	25	4	16	4	73		\$9,202.92
Sub Total Hours		\$1,687.20	\$545.13	\$0.00	\$1,898.13	\$2,920.50	\$441.24	\$1,386.24	\$324.48			
Sub Total Labor												
<b>SPI</b>												
100-year detention calcs	1	1		3			4			8	8	
Drainage Plan and Profile Sheets	3	4		24			8			36	12	
Hydraulic Data (Winstorm or other)	1	4		16			4			24	24	
Summary of Drainage Quantities	1	1		3			1			5	5	
Project Management		4							2	6		
Coordination/Progress Meeting with PMC		4								4		
Coordination with AECOM		6		10						16		
	6	24	0	56	0	0	17	0	2	99		
Sub Total Hours		\$5,061.60	\$0.00	\$10,176.76	\$0.00	\$0.00	\$1,875.27	\$0.00	\$162.24			\$17,274.87
Sub Total Labor												
Total Labor Costs		\$6,749.80	\$545.13	\$10,176.76	\$1,898.13	\$2,920.50	\$2,316.61	\$1,386.24	\$486.72			\$26,477.79