

**SUPPLEMENTAL AGREEMENT NO. 3  
TO  
AGREEMENT OF April 18, 2012  
FOR  
ENGINEERING SERVICES for  
Fort Bend Grand Parkway Toll Road, Segment D**

This Supplemental Agreement is made and entered into this 28<sup>th</sup> day of November, 2012, and modifies the ENGINEERING SERVICES AGREEMENT between Fort Bend Grand Parkway Toll Road Authority and Reynolds, Smith and Hills, Inc., dated April 18, 2012 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 \$403,010.59.”

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

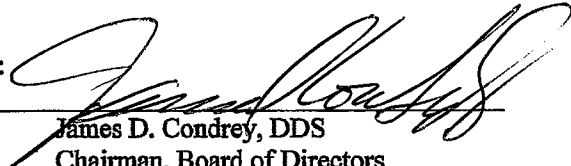
“Compensation for performance of services within the Scope of Services described in Attachment A will be as follows: The lump sum compensation shall be increased by \$198,424.42, for the additional work shown in Attachment A. The maximum amount payable under this agreement shall not exceed \$403,010.59, 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-3, attached hereto.
4. The Compensation for Scope of Services shown in Attachment B shall be expanded to include Exhibit B-3, attached hereto.

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

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

FORT BEND GRAND PARKWAY TOLL  
ROAD AUTHORITY

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

ATTEST:

By: 

REYNOLDS, SMITH & HILLS, INC.

By: 

Name: Richard Hurst

Title: Vice President

**EXHIBIT A-3  
ATTACHMENT A  
SUPPLEMENTAL AGREEMENT NO. 3  
ADDITIONAL SCOPE OF SERVICES**

**FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY  
TOLL SYSTEM TESTING AND INSTALLATION**

**BACKGROUND**

The Fort Bend Grand Parkway Toll Road Authority (FBGPTRA) is developing Segment D of the Grand Parkway. This project consists of mainlane overpasses from U.S. 59 to FM 1093/Westpark Tollway and is being constructed as a toll facility. The general mainlane typical section consists of four 12-foot lanes with depressed median, tolled overpasses, six-foot inside and 10-foot outside shoulders. The opening of this new toll facility necessitates that FBGPTRA take action to collect tolls. This scope of services is for the management and oversight of the system integrator and the installation of the system.

- Phase I – System Design, Document Development and Plans Review,
- Phase II – System Development
- Phase III – System Testing and Installation

This scope is for the services included in Phase I, II and III and includes:

**Phase I**

1. Review and provide comment to the System Integrator's Program Management Plan, which includes review of:
  - a. System Integrator's Management Approach;
  - b. System Installation Plan, which includes subsystem and component installation sequencing, the system Commissioning process and costs;
  - c. Detailed Critical Path Method (CPM) schedule describing system design, development, installation and testing;
  - d. Business Continuity and Disaster Recovery Plan
2. Participate in Project Initiation Conference, Design Review Workshops (if necessary), the Critical Design Review and meetings and presentations with FBGPTRA, consultants, and others as requested
3. Insure that the integrator obtains all required FCC licenses in the name of FBGPTRA
4. Review and comment on:
  - a. Detailed Design Documents including the system diagrams, screen layouts, report formats, software design, testing and operational procedures;
  - b. Typical site installation drawings (including wiring and communications) to the Authority provided by the integrator within 60 days of NTP
5. Enhance business rules to ensure TransCore system satisfies the needs and requirements of FBGPTRA

## **Phase II**

1. Review and comment on:
  - a. Test Plan for testing all components of the Project and the fully functional system. This document shall include plans for functional testing and performance testing, as applicable, during the Factory Acceptance Test (FAT), Site Acceptance Test (SAT), Commissioning Test, Operational Test, and Performance Audit. The Test Plan will provide a matrix listing each requirement and how that requirement is to be tested or demonstrated, by inspection, analysis, or test;
  - b. Test scripts and participate in the FAT, which shall include testing of the hardware, software, and various subsystems that will be provided by the System Integrator;
  - c. FAT report, which describes the results. The report shall document the test activities, including any redlined copy of the test procedures, and test results, including screen-shots and reports, punch list and shall include a narrative explaining the activities and results;
  - d. Test scripts for and participate in the System Acceptance Test (SAT) at each tolling point. The SAT includes a series of baseline test procedures to demonstrate functionality of the roadside System, in an unambiguous fashion. The intention of SAT is to validate functionality of each installed Toll Zone once it is installed. All roadside functional requirements of the System are to be validated during the SAT. Conditions of the test shall include items, such as lighting, type of vehicle, and the speed and movement of the vehicles through the Toll Zone (left to right, straddling lanes, vehicle speed, and mix of vehicles with and without tags). The individual Host interfaces to the Interoperable HUB shall be tested in accordance with the accepted ICD during each SAT
2. Upon acceptance of the final SAT, review the test scripts for and participate in the Commissioning Test of the entire Grand Parkway system. This System Commissioning Test shall demonstrate full "end-to-end" functionality of the System including any and all external interfaces to the Project, including the Interoperability HUB, Violation Processing Center (VPC), and other interfaces as required, and performance of that interface (load testing). Commissioning Tests shall occur only after all SAT has been completed and FBGPTRA approved
3. Review and comment on the Commissioning Test report, which describes the results. The report shall describe the results, including a punch list of any outstanding items or issues identified during the test performance. The Report shall document the test activities, including any redlined copy of the test procedures, and test results, including screen-shots and reports, and shall include a narrative explaining the activities and results
4. Review the test scripts for and participate in the Operational Test for evaluating the System in a real world environment over a 60-day period following the acceptance of the Commissioning Test. The Operational Test is to be conducted and evaluated by the System Integrator and observed by FBGPTRA. The Operational Test procedures shall include, but not be limited to the following:

- a. Review of recorded transaction data to identify any patterns that suggest erratic or faulty system behavior. Such indications may prompt further analysis or investigation;
- b. Review of MOMS and other maintenance data to identify reliability problems;
- c. Controlled testing through the insertion of test vehicles into real traffic

**Phase III**

1. Provide system installation oversight at the fourteen (14) tolling points for the following seven (7) toll zones. Inspect the installation of loops, the installation of the tolling equipment and cabinets, oversee the hardware checkout and interface testing. Recommend remedies for conflict resolution:
  - 1.1. W. Riverpark Dr. (south side of overpass)
  - 1.2. New Territory Overpass (south side of overpass)
  - 1.3. US 90A/Sand Hills Blvd. (north side of overpass)
  - 1.4. W. Airport Rd/Harlem Rd. (south of Harlem)
  - 1.5. Mason Rd/West Bellfort (between Mason & Bellfort)
  - 1.6. Bellaire Blvd. (south side of overpass)
  - 1.7. Westpark Tollway (south side of overpass)

**EXHIBIT B-3**  
**ATTACHMENT B**  
**SUPPLEMENTAL AGREEMENT NO. 3**  
**ADDITIONAL SCOPE OF SERVICES**  
  
**FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY**  
**TOLL SYSTEM TESTING AND INSTALLATION**

			Phase 1 System Design & Development December 2012 - February 2013										Phase 2 System Testing February 2013 - February 2014										Phase 3 Installation Oversight March 2013 - November 2013										Hours	Rate	
Name	Position	Burdened Rate	1a	1b	1c&d	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Ramos	Project Principal	\$238.73	4			40		8	8	160	\$7,655.68	16	8	8	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	104	\$24,827.92
Hurst	Project Manager	\$249.03	8	4	16	76		16	32	452	\$37,857.56	56	24	8	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	328	\$81,681.84	
Davis	Contract Specialist	\$84.64				6		6		152	\$1,015.68			8																			28	\$2,369.92	
Rich	Performance Contr	\$107.69				8	32	72	8	32	40	152	\$20,676.48	120	48	16	64	248	\$26,670.42															654	\$71,506.16
Total			12	12	48	194	8	62	80	416	\$73,868.52	192	80	40	104	416	\$56,899.44	44	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	1124	\$180,385.84

contingency \$18,038.58

maximum fee. \$198,424.42