

**SUPPLEMENTAL AGREEMENT NO. 2
TO
AGREEMENT OF MAY 22, 2013
FOR
ENGINEERING SERVICES for
FORT BEND COUNTY TOLL ROAD AUTHORITY
TOLL COLLECTION SYSTEM CONVERSION**

This Supplemental Agreement is made and entered into this 10th day of February, 2014, and modifies the ENGINEERING SERVICES AGREEMENT between Fort Bend County Toll Road Authority and Reynolds, Smith and Hills, Inc., dated May 22, 2013 for engineering services for the Fort Bend County Toll Collection System Conversion.

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 \$422,467.47."

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 \$362,697.90, for the additional work shown in Attachment A. The maximum amount payable under this agreement shall not exceed \$422,467.47, 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 FBCTRA."

3. The Scope of Services shown in Attachment A shall be expanded to include Exhibit A-2, attached hereto.
4. The Compensation for Scope of Services shown in Attachment B shall be expanded to include Exhibit B-2, attached hereto.

[Remainder of page intentionally left blank.]


Supplemental Agreement No. 2
To Agreement of May 22, 2013

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


FORT BEND COUNTY TOLL ROAD
AUTHORITY

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

ATTEST:

By: 
William D. Kee, III
Asst. Secretary, Board of Directors

REYNOLDS, SMITH & HILLS, INC.

By: 
Name: Richard C. Hurst
Title: Vice President

**EXHIBIT A-2
ATTACHMENT A
SUPPLEMENTAL AGREEMENT NO. 2
ADDITIONAL SCOPE OF SERVICES**

**FORT BEND COUNTY TOLL ROAD AUTHORITY
TOLL COLLECTION SYSTEM CONVERSION**

BACKGROUND

The Fort Bend County Toll Road Authority (FBCTRA) is in the process of replacing toll equipment on Westpark Tollway and the Fort Bend Parkway. In order to accommodate the placement of new tolling infrastructure must be constructed. The timeframe to incorporate new tolling equipment and infrastructure is by the fall of 2014. The scope of services comply with recommendations made in the August 2013 Toll Conversion Concept Report submitted to FBCTRA.

Assumptions:

Plans will be developed based on "site adept" approach. Client will provide approved toll gantry designs to serve as design guidelines and standards as well as provide electronic design files, in AutoCAD or Microstation format, previously developed for each roadway.

Engineer will subcontract geotechnical services for this contract.

Engineer's services include preparation of bid package, advertising the projects for bid and the review of bids, as directed by the FBCTRA.

Engineer will complete scope of services by October 31, 2014.

Toll Facilities Infrastructure Design

WESTPARK TOLLWAY 2.1

The toll gantry design will be prepared by the Engineer based on the Grand Parkway, Segment D Toll Gantry design and substructure aesthetics. The Engineer's work shall consist of, but not be limited to, the development of the following:

- Mainlanes (two locations)
 - Demolition Plans
 - Roadway Details, including Traffic Control Plans
 - Electrical Design Plans
 - Structural Details and Design (Toll gantry modifications)
 - Architectural Details (Provided by FBCTRA)
 - Standards
- Detailed scope consists of:
 - Demolition plans – plans will consist of details which illustrates the removal of unnecessary improvements, such as, concrete pads, fencing, building structures,

metal beam guard fence, equipment cabinets and existing toll collection system outside the edge of pavement.

- Roadway details – will consist of traffic control plans, stripping layouts and miscellaneous roadway details.
- Electrical design plans – will consist of layouts and details necessary for installing and implementing toll collection system.
- Structural Details and Design – consist of details illustrating modification to existing toll gantries to accommodate TransCore toll collection system with a "T" attachment. The design will include modelling and analysis of the existing structure with "T" attachment for new toll equipment. The static analysis will be used to verify existing steel members and foundations meet applicable AASHTO wind and dead load group cases. Dynamic analysis serviceability deflection/rotation analysis, and toll equipment connection details to be completed by toll system integrator.
- Architectural Details – Provided by FBCTRA, Engineer will incorporate details into plan set.
- Standards – Engineer will select appropriate County or State design standards as appropriate and incorporate into plan set.

Engineer will be responsible for coordination and management of work performed by TransCore and Xerox (System Integrator and VPC, respectively) to ensure a successful conversion of the tolling system.

FORT BEND PARKWAY 2.2

The toll gantry design will be prepared by the Engineer based on the Grand Parkway, Segment D Toll Gantry design and substructure aesthetics. The Engineer's work shall consist of, but not be limited to, the development of the following:

- Mainlanes (three – 1. Fondren (between Fondren & McHard); 2. McHard (just south of McHard); and 3. Lake Olympia (just south of Lake Olympia).
 - Demolition Plans
 - Roadway Details, including Traffic Control Plans
 - Electrical Design Plans
 - Structural Details and Design (New Toll Gantries)
 - Architectural Details (Provided by FBCTRA)
 - Standards
 - Geotechnical Investigations
 - Permitting – electrical (Missouri City)
- Detailed scope consists of:
 - Demolition plans – plans will consist of details which illustrates the removal of existing tolling infrastructure which includes but is not limited to: toll gantry, access roadway pavement (as directed by FBCTRA), toll equipment, concrete pads, fencing, building structures, metal beam guard fence, concrete traffic

barriers, equipment cabinets and existing toll collection system outside the edge of pavement.

- o Roadway details – will consist of roadway layouts, traffic control plans, signing and stripping layouts and miscellaneous roadway details.
- o Electrical design plans – will consist of layouts and details necessary for installing and implementing toll collection system.
- o Structural Details and Design –Design includes static analysis of new gantries based on TXDOT standards. Analysis will include verification that toll equipment loading is less than TXDOT standard loads for applicable AASHTO wind and dead load group cases. Design loads will be used to determine foundation length based on geotechnical parameters provided by Geotechnical Engineer and boring information. Details will include control drawings to depict plan and elevation of new gantries, data table to reference applicable TXDOT standard structures, additional aesthetic details for TXDOT standard column supports. Additional truss details will be covered by TXDOT standard sheets. Dynamic analysis, serviceability deflection/rotation analysis, and toll equipment connection details to be provided by toll system integrator.
- o Architectural Details – Provided by FBCTRA, Engineer will incorporate details into plan set.
- o Standards – Engineer will select appropriate County or State design standards as appropriate and incorporate into plan set.
- o Permitting – Engineer will coordinate with the City of Missouri City during the development of electrical design to ensure compliance.

Engineer will be responsible for coordination and management of work performed by TransCore and Xerox (System Integrator and VPC, respectively) to ensure a successful conversion of the tolling system.

The toll system integrator will be responsible for determining the structure's vibration and dynamic response and providing equipment that will meet the tolling requirements. The loading of the tolling equipment shall not exceed that specified on the design details.

**EXHIBIT B-2
ATTACHMENT B
SUPPLEMENTAL AGREEMENT NO. 2
ADDITIONAL SCOPE OF SERVICES**

**FORT BEND COUNTY TOLL ROAD AUTHORITY
TOLL COLLECTION SYSTEM CONVERSION**

Firms	Fee
<u>Westpark Tollway 2.1</u>	
Ramos Consulting, LLC	\$26,588.61
RS&H, Inc	\$62,593.22
Charles D. Gooden Consulting Engineers, Inc.	\$17,711.50
Sub-total	\$106,893.33
 <u>Fort Bend Parkway 2.2</u>	
Ramos Consulting, LLC	\$54,322.90
RS&H, Inc	\$93,201.17
Charles D. Gooden Consulting Engineers, Inc.	\$3,280.50
Sub-total	\$180,804.57
 Geotechnical Investigations	 \$75,000.00
 Total	 \$362,697.90

