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KNOW ALL MEN BY THESE PRESENTS:

THIS SECOND AMDENDMENT is made and entered into by and between the Fort Bend County Drainage District, a body corporate and politic under the laws of the State of Texas, acting herein by and through its Board of Directors, hereinafter referred to as "District," and LJA ENGINEERING & SURVEYING, INC., hereinafter referred to as "Contractor," authorized to conduct business in the State of Texas.

WHEREAS, District and Contractor entered an Agreement for Professional Engineering Services dated January 2010, (collectively, the "Agreement") and a First Amendment dated July 27, 2010 (collectively, the "First Amendment") attached hereto as Exhibit B & C, incorporated by reference as if set forth herein verbatim. District and Contractor desire to amend said Agreement as set forth in Contractor's proposal dated June 27, 2011, attached hereto as Exhibit A and incorporated herein by reference as if set forth verbatim.

- A. An additional amount not-to-exceed \$8,100.00 shall be available for additional services provided by Contractor in connection with the Project as described in Exhibit A.
- B. Contractor's compensation for the Project shall not exceed \$70,250.00, which includes the original scope of work under the Agreement and the additional services described in Exhibit A.
- C. Reimbursable expenses shall be reimbursed to Contractor at-cost upon submission of properly submitted expense records to District as provided in the Agreement. Service charges are not applicable and not subject to reimbursement.
- D. No additional funding shall be available for services provided under the Agreement without prior written consent of the District.
- E. Except as modified herein, the Agreement remains in full force and effect and has not been modified or amended.
- F. If there is a conflict between this Second Amendment and the Agreement, the provisions of this Amendment shall prevail.

First Amendment to Agreement for Professional Engineering Services
LJA Engineering & Surveying, Inc. – Stafford Run Creek
Page 1 of 5

EXECUTION

This Agreement shall become effective upon execution by District.

FORT BEND COUNTY DRAINAGE DISTRICT:

Robert E. Hebert
Robert E. Hebert, County Judge

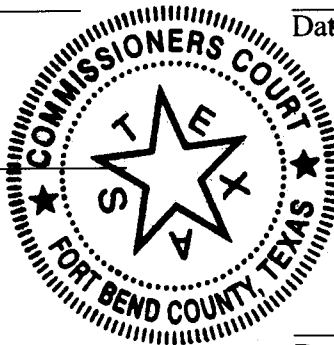
July 26, 2011
Date

Attest:

Dianne Wilson
Dianne Wilson, County Clerk

APPROVED:

By: Mark Vogler
Mark Vogler, PE
Fort Bend County Drainage District



7/20/11
Date

CONTRACTOR: LJA ENGINEERING & SURVEYING, INC.

James E. Moehlman
James E. Moehlman, PE
Senior Vice President

7/20/11
Date

MER:LJA.Drainage District.2nd.AMEND.3523

Total

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$ 70,250.00 to accomplish and pay the obligation of the District under this contract.

Ed Sturdivant
Ed Sturdivant, Fort Bend County Auditor

Exhibit A: Contractor Proposal dated June 28, 2011

Exhibit A

LJA Engineering, Inc.



2929 Briarpark Drive Phone 713.953.5200
Suite 600 Fax 713.953.5026
Houston, Texas 77042-3793 www.ljaengineering.com

June 28, 2011

REVISED PROPOSAL

Mr. Mark Vogler, PE
Fort Bend County Drainage Engineer
Fort Bend County Drainage District
P.O. Box 1028
Rosenberg, Texas 77471

Re: Proposal for Additional Engineering Services to
Determine Improvement Options for
Stafford Run Creek, Fort Bend County, Texas
LJA Proposal No. 10-0499CO3

Dear Mr. Vogler:

At the request of the Fort Bend County Drainage District, the following changes or additions have been made to the approved Scope of Work for Change Order Number 2 (CO2) to the Stafford Run Master Drainage Plan Update:

1. Coordination with the Engineer for Fort Bend County Water Control and Improvement District No. 2 (WCID No. 2) regarding the Texas Commission on Environmental Quality (TCEQ) requirements for their wastewater discharge permit
2. Investigating the difference in computed velocities between the HEC-2 model used to obtain the LOMR for Stafford Run and the HEC-RAS models used for this analysis and the impact the different velocity has on the computed water surface elevations.
3. Revising the Unsteady HEC-RAS model to obtain velocities comparable with the HEC-2 model used for the LOMR
4. Sensitivity analysis of each component of the proposed improvements.

We are pleased to submit this proposal for additional engineering services for this project and offer the following services and corresponding fees.

CO3 Task 1 Coordination with WCID No. 2

This task includes meeting with the WCID No. 2 Engineer to discuss the TCEQ requirements, providing copies of the modeled Stafford Run cross-sections through the detention pond area and adding the proposed WCID No. 2 improvements to the Stafford Run channel to the ultimate model of the Stafford Run channel.

Estimated Fee for Task 1 is \$800.00



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Mr. Mark Vogler, PE
June 28, 2011
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CO3 Task 2 Investigate Velocity Differences and the Impact on the Computed Water Surface Elevation

The goal of this task is to compare the velocities from the HEC-2 Model used to obtain the Stafford Run LOMR with the velocities generated using the Unsteady HEC-RAS ver. 4.1 and research the potential reasons for the differences for inclusion in the Report.

Estimated Fee for Task 2 is \$2,100.00

CO3 Task 3 Revisions to Unsteady RAS Model to Increase Velocity

The goal of this task is to re-create the HEC-2 LOMR velocities in the Unsteady HEC-RAS model of Stafford Run. It is anticipated that lowering the Manning roughness coefficient will result in higher velocities. Included in this task is the iteration between the HEC-HMS model that uses tailwater conditions at three locations to model the restrictions under the GCWA canal and at Brand Lane, which will be done for each event that is modeled.

Estimated Fee for Task 3 is \$3,000.00

CO3 Task 4 Model Stability

Because the Unsteady option in HEC-RAS is being used for these analyses, additional time will need to be spent to stabilize the model when each change is added.

Estimated Fee for Task 4 is \$1,200.00

CO3 Task 5 Report Additions and Revisions

LJA proposes to present the results of this analysis as an update to the previous two reports. The report will include discussions of the WCID No. 2 requirements, the Unsteady HEC-RAS model input parameters and geometry, including documentation for the Manning's roughness coefficients used for the channel, the resultant water surface elevations and outfall hydrograph and the unsteady HEC-RAS water surface elevations. Exhibits showing the location of the possible GCWA detention pond, possible expansions to the existing Missouri City Park ponds and the proposed condition water surface elevations will also be included.

Estimated Fee for Task 5 is \$1,000.00

The budget for reimbursable expenses such as printing, reproduction and mileage does not need to be adjusted.

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Compensation

We propose to perform these services on a time and material basis. The detail of these fees is as follows.

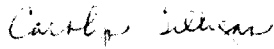
CO Task	Description	Fee Basis	Fee
1	Coordination with WCID No 2	T&M	\$ 800.00
2	Velocity Investigation	T&M	\$2,100.00
3	Revisions to Unsteady RAS Model	T&M	\$3,000.00
4	Unsteady HEC-RAS Model Stability	T&M	\$1,200.00
5	Report Revisions & Additions	T&M	\$1,000.00
	Total		\$8,100.00

Actual charges will be for the number of hours worked on the project at our standard billing rates, not to exceed \$8,100.00 without prior written authorization from the Fort Bend County Drainage District. Reimbursable charges related to this project will be billed at actual costs plus 10 percent handling as defined in the PSA.

If this proposal meets with your approval, please execute both copies, returning one copy to our office and keeping the other for your records.

If you have any questions, please call me at 713.953.5275.

Sincerely,



Carolyn Gilligan, PE
Senior Technical Specialist
Hydrology and Hydraulics

CSG/rca

APPROVED FOR:
FORT BEND COUNTY DRAINAGE DISTRICT

By:

Name: Robert Hebert, County Judge

Date: July 26, 2011

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