From: Justine Cherne <jcherne@abhr.com>
To: Justine Cherne <jcherne@abhr.com>, "'Ann Werlein'" <werleann@co.fort-ben...
CC: "'Bill Jameson (billj@wjinterests.com)'" <billj@wjinterests.com>, "'Mike...
Date: 3/18/2010 10:54 AM
Subject: Fort Bend County Toll Road Authority Agenda Item Request
Attachments: TRAttach.pdf

March 18, 2010

Dear Judge and Commissioners:

14

The Board of Directors of the Authority reviewed the following items at their regular meeting held on March 17, 2010, and makes the following recommendations to Commissioners Court:

1. Approval of Amended and Restated Order Establishing a Toll Rate Schedule and Speed Limit for the Fort Bend Parkway Toll Road; Prohibiting the Operation of a Motor Vehicle on a County Toll Causeway, Bridge, Tunnel, Turnpike, Highway, or Combination of Those Facilities after Failure to Pay Required Toll or Charge; Establishing an Administrative Adjudication Hearing Procedure for Violation of Order Prohibiting Operation of a Motor Vehicle on a County Toll Causeway, Bridge, Tunnel, Turnpike, Highway, or Combination of Those Facilities after Failure to Pay Required Toll or Charge; Establishing Policy Relating to Use of Toll Road System by the Military; Containing Other Provisions Relating to the Subject.
2. Approval of Supplemental Agreement No. 4 to Engineering Services Agreement with Brown & Gay Engineers, Inc. in the amount of $110,144.95 for toll facilities design for the Fort Bend Parkway, Project B.
3. Approval of Supplemental Agreement No. 1 to Engineering Services Agreement with PBS&J in the amount of $36,425.00 for the Fort Bend Parkway, Project B.

Copies of the related documents will be forwarded for your review. Please place these items for consideration by Commissioners Court on the agenda for the meeting scheduled on March 23, 2010.

As always, if you should have any questions regarding this matter, please don't hesitate to contact any member of the Board of Directors or the Authority's consultants.

Very truly yours,

Joe B. Allen
Allen Boone Humphries Robinson LLP
713-860-6401

BROWN & GAY
ENGINEERS, INC.

14A

March 10, 2010

Dr. Jim Condrey
Fort Bend County Toll Road Authority
P.O. Box 2789
Sugar Land, TX 77489-2789

Re: Toll Collection System and Incident Management Camera Design
Supplemental Agreement No. 4
Fort Bend Parkway Toll Road, Segment B-1

Dear Dr. Condrey:

Enclosed is Supplemental Agreement No. 4 for additional work consisting of engineering design services for the toll collection system and incident management cameras to be provided by Electronic Transaction Consultants Corporation (ETC) and Brown & Gay Engineers, Inc. (BGE). Below is a general description of the work:

Communications Network:

This work includes providing design of the fiber optic communication backbone to tie to the existing system. The fiber optics will be used for both the toll collection system and the incident management cameras.

Toll Collection System:

It is proposed to have one toll area located approximately halfway between SH 6 and Sienna Parkway. The work includes design of the toll gantries, site design, lane controller equipment, violation enforcement equipment, and general toll area site layout plans and details.

Incident Management Cameras:

This work includes providing the camera layouts, fiber optic interface, camera equipment, and site details.

Attached with the Supplemental Agreement are the scope and fees for the additional work. The lump sum cost for this work is $110,144.95 and increases the contract to a total cost of $1,273,250.23.

If you have any questions, please contact me at 281-558-8700 or via my e-mail at ggehbauer@browngay.com.

Sincerely,

Gary Gehbauer

Gary Gehbauer, P.E.
Senior Project Manager

attachments

SUPPLEMENTAL AGREEMENT NO. 4
TO
AGREEMENT OF FEBRUARY 20, 2008
FOR
ENGINEERING SERVICES for
Fort Bend Parkway Toll Road Segment B (Phase 1)

This Supplemental Agreement is made and entered into this 17th day of March, 2010, and modifies the ENGINEERING SERVICES AGREEMENT made with Brown & Gay Engineers, Inc., dated February 20, 2008 for engineering design, environmental assessment, geotechnical and survey services for the extension of the Fort Bend Parkway Toll Road, Segment B (Phase 1).

The agreement is hereby modified as follows:

The Scope of Services are amended to include the additional service as described in Attachment A-1, which are made part of this Supplemental Agreement.

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

"Compensation for performance of the Services defined in Attachment A-1 will be as follows: The Additional Services compensation shall be for a lump sum amount of $110,144.95, as shown in Attachment B-1. The maximum amount payable under this agreement shall not exceed $1,273,250.23 for all work except by separate agreement in accordance with the provisions of this agreement."

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

FORT BEND COUNTY TOLL ROAD
AUTHORITY, a local government
Texas Corporation

By: _____
James Condrey
Chairman, Board of Directors

ATTEST:

By _____

Brown & Gay Engineers, Inc.
ENGINEER

By: _____

Name: J. Roberto Arroyave, P.E.

Title: Vice President

SUPPLEMENTAL AGREEMENT NO. 4
ATTACHMENT A-1
Brown & Gay Engineers, Inc.

SCOPE OF SERVICES

Project:	Fort Bend Parkway Toll Road Segment B, Phase 1
Limits:	SH 6 to Sienna Parkway
County:	Fort Bend
Project Length:	1.7 miles
Station Limits:	STA. 819+00 to STA. 910+65

GENERAL DESCRIPTION

The work to be performed by the Engineer under this supplemental agreement consists of providing engineering services for the development and design of the toll system, including communications, network, toll area site layout, toll gantry design, and incident management cameras. This scope of services includes:

A. COMMUNICATION NETWORK DESIGN

The Engineer shall prepare all plans necessary for the extension of existing communications network from Segment A to the proposed Toll Plaza in Segment B.

1. **Communication Network Schematic** – The Engineer shall prepare a communications network schematic detailing the existing network (Fort Bend Parkway Segment A) and the network extension for the proposed Segment B-1 toll area. This schematic will be included in the plan set.
2. **Communication Network PS&E** – The engineer shall prepare a communication network PS&E for the extension of the network for the proposed Segment B-1 toll area. These plans will be 100 scale and will include all required notes and quantity summaries. These plans will include the required conduit, ground boxes, fiber optic cable, splices, switches, and other equipment to provide a fully functional communication system to the proposed toll area.
3. **Communication Network PS&E Details, Standards, & Specification** – The Engineer will prepare details, standards, and specifications for the communications network. These details will include items such as conduit, ground boxes, equipment, fiber optic cable, and installation details.
4. **Incident Management Cameras** – The engineer shall prepare the plans for the camera system with compatible design, equipment, and interface requirements with TranStar.

D. TOLL PLAZA DESIGN

The Engineer shall prepare all plans necessary for the proposed toll plaza gantry.

1. **Toll Area Site Layout** - The Engineer will prepare the Site Plan for the proposed Segment B-1 main line toll area. The plans shall include gantry, maintenance driveway, electrical service, equipment, conduit, ground boxes, cabling, and summary sheets.
2. **Toll Gantry Design** - The Engineer will prepare toll gantry designs based on TxDOT standard tubular steel sign structures. The gantry design will be based on the design criteria of the TSI. The TxDOT standard will be modified as necessary to accommodate the design criteria and may include design of structure frame elements between tubular structures to accommodate tolling

equipment. These plans will also include structural foundation designs and gantry conduit schematic.

3. **Toll Plaza Details, Standards, & Specifications** – The Engineer will prepare the required details, standards, and specifications for the toll plaza. These details will include equipment, building, driveway, gantry, and installation details.

Fort Bend Parkway Toll Road
Segment B, Phase 1
From SH 6 to Sienna Pkwy

SUPPLEMENTAL AGREEMENT NO. 4
ATTACHMENT B-4
FEE SCHEDULE
BROWN & GAY ENGINEERS, INC.

FBCTRA

MANHOUR COST SUMMARY - BROWN & GAY ENGINEERS, INC. (BGE)	SYSTEMS ENGINEER	EIT	TOTAL
COMMUNICATION NETWORK DESIGN	80	240	320
TOLL AREA DESIGN	100	270	370
TOTAL HOURS	180	510	690
MANHOUR RATES	$ 47.00	$ 28.00	
TOTAL DIRECT LABOR COSTS	$ 8,460.00	$ 14,280.00	$ 22,740.00

FEE SUMMARY - BGE	DIRECT LABOR	OVERHEAD 166.785%	PROFIT 15%	EXPENSES	TOTAL
COMMUNICATION NETWORK DESIGN	$ 10,480.00	$ 17,479.07	$ 4,193.86		$ 32,152.93
TOLL AREA DESIGN	$ 12,260.00	$ 20,447.84	$ 4,906.18		$ 37,614.02
TOTALS	$ 22,740.00	$ 37,926.91	$ 9,100.04	$ 200.00	$ 69,966.95

MANHOUR ESTIMATE - BROWN & GAY ENGINEERS, INC					
	DESCRIPTION	# OF SHTS	SYSTEMS ENGINEER	EIT	TOTAL
A	COMMUNICATION NETWORK DESIGN				
1	Communication Network Scematic	2	10	40	50
2	Communication Network PS&E	7	30	80	110
3	Communication Network PS&E Details, Standards, and Specifications	10	10	40	50
4	Incident Management Camera Design	7	30	80	110
	SUBTOTAL	26	80	240	320
B	TOLL AREA DESIGN				
1	Site Layout		50	150	200
	Quantity Summary	1			
	Conduit Layout	2			
	Grading, Drainage, and Driveway	2			
	Equipment Building Layout, Conduit, Fencing, Electrical	5			
	Loop Layout	1			
	Paving Plan	2			
2	Toll Gantry Design		40	80	120
	Gantry Layout	1			
	Gantry Bridge Design	3			
	Gantry Foundation Design	1			
	Gantry Counduit Schematic	1			
3	Toll Details, Standards, and Specifications	10	10	40	50
	SUBTOTAL	29	100	270	370

FBCTRA Fort Bend Parkway Toll Road: Section B-1

Toll Collection System Design

Toll Systems Consultant's Scope of Work

Attachment A-1 and B-1

Revised: March 8, 2010

Confidential Information

ETC
Electronic Transaction Consultants
1705 N. Plano Road, Richardson, Texas USA 75081
Tel: 214.615.2326, Fax: 214.615.5001

Table of Contents

Scope of Work

Background

The Fort Bend County Toll Road Authority (Authority) intends to implement an "all electronic" toll collection system on the Fort Bend Parkway Toll Road: Section B-1. This road extends the current Ft Bend Parkway south beyond SH-6 into Ft Bend County. This road is designed to be Open Road Tolling similar to the Westpark Extension Toll Road.

The FBCTRA Fort Bend Parkway Toll Road: Section B-1 project is in the design process presently and the Authority seeks a qualified Toll Systems Consultant to provide toll collection system designs for inclusion in construction plans and for Bid purposes.

Electronic Transaction Consultants (ETC) is a qualified Toll Collection Systems design consultant and will prepare and provide the Authority with Toll Collection System designs, toll collection equipment bill of material and technical lane design drawings.

ETC's scope of work for the FBCTRA Fort Bend Parkway Toll Road: Section B-1 is detailed in the Scope Section of this document.

Scope

Project Overview

The Consultant will provide Toll Collection System

- The Section B-1 Toll Collection System is of compatible design and uses compatible equipment with the FBCTRA Ft Bend Parkway and Westpark Extension Toll Collection System, i.e., Plaza Host, Lane Controller, etc.
- The Toll Collection System generates toll transactions (message structures) and support configuration, validation and rate table structures that are identical to that of the HCTRA Toll Collection System and said transactions can be processed by HCTRA on behalf of the Authority at the Authority's option
- At a minimum the Toll Collection System will include the following components and elements:
  - Lane Controller Equipment (Computer and Cabinet) for each pair of ORT lanes
  - Automatic Vehicle Identification (AVI) Equipment
  - Automatic Vehicle Classification (AVC) Equipment
  - Violation Enforcement System (VES) Equipment
  - Fiber Optic Media for communications between toll site and HCTRA
  - Miscellaneous Network Equipment (TCP/IP, Ethernet, etc)

In addition, the Consultant will perform an RF Spectrum Analysis of the toll collection site to identify potential sources of interference with the AVI subsystem. If necessary, the

existing FBCTRA FCC license for the Ft Bend Parkway will be amended to include the additional toll collection site.

In execution of the scope of work, the Consultant will create the following series of plans and specifications.

Designs – 30%, 60% and 90%

Upon notice-to-proceed and the provision of initial requirements, the Consultant will prepare preliminary Toll Collection System design documentation for review and approval by the Fort Bend County Toll Road Authority. Toll Plaza structures and Equipment buildings will be designed and specified by others. Documentation will include the following:

- Preliminary System Design – An overall toll system requirements schematic with detail inclusive of all recommended equipment types for implementing a system compatible with HCTRA toll collection and EZ TAG system.
- Preliminary Equipment Layouts – System configuration and equipment layouts will include toll collection equipment, equipment building or cabinet, and FBCTRA Fiber Optic communications interconnections.
- Preliminary Equipment Dimensions and Electrical requirements – Dimensioned sketches of each toll collection site designating equipment location information and electrical information, i.e, conduit, cable, and wire power specifications, and environmental requirements inclusive of the toll collection system.
- Preliminary System Estimate – Assistance with developing a budget for procuring the described solution.

Final Designs – 100%

Pending comments and approval on Intermediate Designs, the Consultant will prepare revisions to the Toll Collection System documentation. Final documentation will include the following:

- Incorporation of Comments, Detail Expansion and final notation to:
  - Equipment Layouts – System configuration and equipment layouts will include toll collection equipment, equipment building, and FBCTRA Fiber Optic communications interconnections.
  - Equipment Dimensions – Critical dimensions of equipment and common equipment mounting details with allowances for equipment variation due to unknown equipment manufacturer until Bid/RFP procurement/selection is complete
  - Electrical requirements – Power requirements, conduit, cable, wire and junction box details for equipment.
  - Communication requirements – Fiber optic splice plan to connect the new toll site to the Ft Bend Parkway main plaza building housing the plaza computer and communication equipment.

- Toll Collection Equipment bill of materials adequate to purchase the required toll collection equipment for the Fort Bend Parkway Toll Road: Section B-1.

- Final System Estimate

The Consultant will submit the Toll Collection System design drawings reviewed and sealed by a Professional Engineer registered in the State of Texas. Plans will be submitted in 11"x17" format. At the Authority's option, the separate submittals for Intermediate and Final Designs may be combined into a single submittal.

Reviews and Approvals

The Consultant will circulate documents for review and approval by Authority designated personnel. Thereafter, the Consultant will revise documents and specifications as required to obtain final approval by the Authority.

Price Proposal

The Toll Systems Consultant's Scope of Work as described within this document is offered to the Authority on lump sum basis of $40,178.00.

SUPPLEMENTAL AGREEMENT NO. 1
TO
ENGINEERING SERVICES AGREEMENT
WITH PBS&J FOR FORT BEND PARKWAY PROJECT B

This Supplemental Agreement is made and entered into this 17th day of March, 2010, and modifies the Engineering Services Agreement dated January 19, 2005 (the "Agreement"), for engineering services for Fort Bend Parkway Project B.

WHEREAS, both parties desire to supplement the Scope of Services to include an updated traffic and revenue study; and

WHEREAS, the Agreement limits the compensation to PBS&J to $48,000, and the updated traffic and revenue study's proposed cost is an additional $36,425;

NOW, THEREFORE, the parties agree to modify the Agreement as follows:

(1) The Scope of Services in Attachment A is supplemented to include the additional services described in Attachment A-1 hereof, which are made part of this Supplemental Agreement.

(2) The first sentence of the second paragraph of Section 2.a. is replaced with the following:

"Compensation for the performance of services within the Scope of Services described in Attachment A will not exceed $84,425."

(3) The parties acknowledge that the original scope of services has been completed and the Authority has paid PBS&J in full for those services.

[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 COUNTY TOLL ROAD AUTHORITY, a Texas local government corporation

By: _____
Name: James D. Condrey DDS
Title: President, Board of Directors

ATTEST:

By: _____
Name: Melody Hess
Title: Asst. Secretary, Board of Directors

PBS&J

By: _____
Name: _____
Title: _____

ATTACHMENT A-1

ATTACHMENT A-1

Fort Bend Parkway Toll Road Extension Traffic & Revenue Forecast Update

Project Understanding

This scope of work describes a study plan to update a toll traffic and revenue (T&R) forecast and toll feasibility analysis for the extension of Fort Bend Parkway from SH 6 to Sienna Parkway. Fort Bend Parkway has been in operation for five years between US 90A and SH 6, including an interim connection to Beltway 8. The toll parkway was jointly developed between the jurisdictions of the Fort Bend County Toll Road Authority (FBCTRA) and the Harris County Toll Road Authority (HCTRA). The original T&R study was conducted in 2005. The primary study area for this effort consists of developed areas south of SH 6 including the Sienna Plantation master planned development. At the time of the 2005 study, segments of Fort Bend Parkway north of SH 6 had only been in operation for less than a year. Thus, the corridor did not have the opportunity to transition through the "ramp up" period where residents of the region began to fully take advantage of the new opportunities provided by the new access. Because the performance of the proposed extension of Fort Bend Parkway is affected by the performance of the existing corridor, there is significant opportunity to improve the revenue outlook for the extension project. However, evidence of growth may also be somewhat dampened by the recent economic downturn.

Task 1 - Field Inventory and Background Data

Though the data collection plan described below is similar to that of the 2005 study, the longer history of operation of the Fort Bend Toll Road is expected to influence the toll revenue forecast and feasibility of the extension project.

1-1. Obtain current schematics and/or design plans and phasing information from FBCTRA for the proposed extension. Obtain recent information regarding the capital, operating and maintenance costs for toll collection infrastructure, and other assumptions used in toll feasibility analysis such as toll rate escalation policies, roadway maintenance costs, and cost escalation rates.

1-2. Obtain updated information about long range major street and highway plans from government jurisdictions, and minor street plans from Sienna Plantations developers, and other major developers in the study area.

1-3. Obtain available more-recent traffic count information from Houston-Galveston Area Council (HGAC), Texas DOT and local sources. Obtain and evaluate HGAC travel demand model forecasts for area roadways and demographic projections as a measure of long term growth potential in the study area.

1-4. Conduct a field review of study area to verify connectivity patterns of existing local streets that may have been connected since the time of the last study. Refine traffic data collection plan if new competing connections are identified.

1-5. Obtain data to update in the Sienna Plantation development plan including dwelling units (by type), commercial and industrial development planned by parcel, current level of completion, and projected build out based on more recent development trends, thus accounting for the current economic downturn.

1-6. Obtain updated toll transaction and revenue data from Fort Bend County Toll Road Authority for the remainder of Fort Bend Parkway, including a revenue generation history since opening. Obtain any other traffic & revenue forecast updates conducted for the existing Fort Bend Parkway, potentially including the HCTRA extension to IH-610. Obtain toll rate schedules and rate escalation policies from FBCTRA & HCTRA for the Fort Bend Parkway corridor. If possible, obtain information about the number of toll transponders owned by residents that currently live south of SH 6 in the Sienna Plantation and surrounding area.

1-7. Conduct new peak period traffic turn movement counts at SH 6 intersections at Fort Bend Parkway, Trammel Fresno Road/Lakeshore Harbor Boulevard and Fort Bend Parkway (frontage road connections), and at Fort Bend Parkway and Trammel Fresno Road/Lakeshore Harbor Boulevard (budget for 4 intersections total).

1-8. Conduct two-day traffic tube counts on Sienna Parkway south of Trammel Fresno Road, SH 6 Frontage Roads just west of Fort Bend Parkway, Knight Road south of SH 6, McKeever Road at the west end of Houston Southwest Airport property, Trammel Fresno Road south of SH 6, Lakeshore Harbor Boulevard west of Fort Bend Parkway, and potentially other new alternate routes that do not appear on current Internet aerial photography (budget included for 8 count sites total).

1-9. Summarize data for use in the T&R forecast and feasibility analysis using tables, charts and maps for use in Task 2.

Task 2 - Toll Traffic & Revenue Forecast

The toll traffic forecast analysis process for this study will involve the use of a travel demand model to account for the impact of more competing routes, and more widespread growth projections. This was not necessary in the previous 2005 study due to limited route choices, and the fact that substantial forecast information was available from a recent traffic & revenue forecast for the existing portion of Fort Bend Parkway, which established a solid basis for gauging corridor growth potential. If necessary, this scope will accommodate evaluation of two implementation alternatives. For example, in the previous study, the effect of not completing the planned overpass of Fort Bend Parkway at SH 6 was considered.

2-1. Compile and evaluate traffic counts, traffic growth trends of study area roadways, and the transaction and revenue growth between 2005 and 2010 from the current Fort Bend Parkway. Compute relevant trend information for the study including time of day, day of week, and month of year directional travel patterns to be used to annualize weekday toll traffic and revenue forecasts, and to set up trip tables for different time-of-day periods.

2-2. Compile peak period turn movement counts to develop a synthetic origin-destination matrix that identifies the market of users for the Fort Bend Parkway that would benefit from the extension project.

2-3. Develop a sub-area travel demand model of the Fort Bend Parkway corridor for the opening year and several future years. Future years include those that represent major changes in the development trends in Sienna Plantation and other areas south of SH 6, expected completion of any competing or supporting transportation projects, and horizon years used by HGAC in demographic projections and regional traffic growth.

2-4. Calibrate a corridor toll diversion model to replicate travel patterns on the current Fort Bend Parkway without the extension project. This includes an evaluation of household income, and estimation of income distributions using US Census data (available on-line). Conduct future year forecasts with and without the extension to determine the growth potential of the project based on local and regional growth projections, and anticipated completion of transportation projects that may feed or compete with the existing or extended parkway. Conduct a toll sensitivity analysis to determine how traffic and revenue may respond to variations in the planned toll schedule (including the escalation plan).

2-5. Compute average weekday toll traffic and revenue for the extension project for each future year required to document anticipated growth trends, and interpolate between model years based on available trend information. Extrapolate traffic and revenue trends to a 40-year horizon beyond the project opening date for use in toll feasibility (bond capacity) analysis.

2-6. Compare revised traffic and revenue forecasts in this report with results from the previous report to identify factors affecting changes in the traffic and revenue forecast trend lines.

2-7. Summarize T&R study results using tables, maps and charts.

Task 3 – Project Management

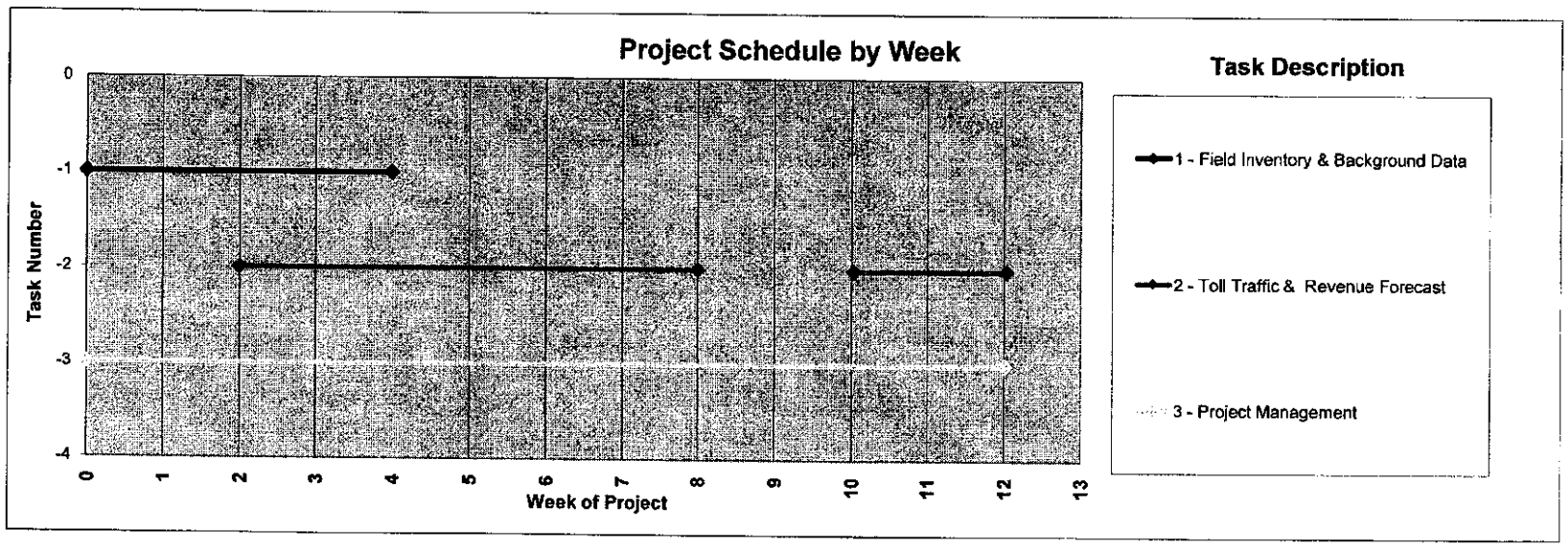
3-1. Management of all team efforts internally.

Schedule and Fee

The proposed schedule to conduct the traffic and revenue forecast and feasibility analysis and produce traffic & revenue forecasts for two alternatives with a listing of key assumptions for review is approximately 8 weeks after receiving the notice to proceed and signed contracts. It is anticipated that the review of the final document will extend the schedule for another 4 weeks. The estimated lump sum cost for conducting the work is $36,425, which includes $3,395 for traffic counts using Gram Traffic Counting, Inc. as a sub consultant to PBS&J. A Manhour Estimate and Project Schedule are attached.

ESTIMATED MANHOURS AND STUDY COST
Fort Bend Parkway T&R Study Update

		Task 1 Field Inventory & Background Data		Task 2 Toll Traffic & Revenue Forecast		Task 3 Project Management		TOTAL All Tasks	
STAFF CATEGORY	RATE	Hours	Salaries	Hours	Salaries	Hours	Salaries	Hours	Salaries
Group Manager	$62.50	0	$0	0	$0	2	$125	2	$125
Sr. Engineer III & IV	$58.00	2	$116	2	$116	10	$580	14	$812
Engineer II & III	$33.50	0	$0	0	$0	0	$0	0	$0
Engineer I (EIT)	$25.00	0	$0	0	$0	0	$0	0	$0
Sr. Planner IV	$67.30	0	$0	4	$269	0	$0	4	$269
Sr. Planner III	$62.70	16	$1,003	40	$2,508	0	$0	56	$3,511
Sr. Planner II	$38.50	16	$616	80	$3,080	0	$0	96	$3,696
Sr. Planner I	$31.25	0	$0	0	$0	0	$0	0	$0
Planner I/II	$29.00	24	$696	40	$1,160	0	$0	64	$1,856
Graphic Artist	$20.50	16	$328	0	$0	0	$0	16	$328
Admin & Clerical	$18.00	0	$0	0	$0	4	$72	4	$72
Total Hours		74		166		16		256	
Subtotal - Salary Costs			$2,759		$7,133		$777		$10,669
Overhead (168.49 percent)			$4,649		$12,019		$1,309		$17,977
Subtotal - Labor Costs			$7,408		$19,152		$2,086		$28,646
Profit (15.0% of salary and overhead)			$1,111		$2,873		$313		$4,297
EXPENSES		Number		Number		Number		Number	
Travel Expenses									
Lodging (taxes/fees not included)	$85.00		$0		$0		$0	0	$0
Meals (Overnight stay required)	$36.00		$0		$0		$0	0	$0
Mileage	$0.550	60	$33		$0	60	$33	120	$66
Other Direct Expenses									
8.5" X 11" black & white copies	$0.10		$0		$0	10	$1	10	$1
11" X 17" black & white copies	$0.20		$0		$0		$0	0	$0
8.5" x 11" color copies	$1.00		$0		$0		$0	0	$0
11" x 17" color copies	$2.00		$0		$0	10	$20	10	$20
Binding for Reports	$5.00		$0		$0		$0	0	$0
Traffic Counts (Lump Sum)	LS	1	$3,395		$0		$0	1	$3,395
Courier Service	$20.00		$0		$0		$0	0	$0
Subtotal - Direct Expenses			$3,428		$0		$54		$3,482
TOTAL STUDY COST			$11,947		$22,025		$2,453		$36,425


Project Schedule by Week
Task Number
0
-1
-2
-3
-4
0
1
2
3
4
5
6
7
8
9
10
11
12
13
Week of Project
Task Description
1 - Field Inventory & Background Data
2 - Toll Traffic & Revenue Forecast
3 - Project Management

GRAM Traffic Counting, Inc.
Cost Estimate
Fort Bend Parkway T&R Study Update

Task	Unit	Number	Unit Cost	Total Cost
48-hour Two-Way Arterial	First Day	10	$ 150.00	$ 1,500.00
	Second Day	10	$ 80.00	$ 800.00
2-hour AM-PM TMC 2-person	Per Day	4	$ 100.00	$ 400.00
Project Manager	Per Hour	8	$ 80.00	$ 640.00
Mileage	Per Mile	100	$ 0.55	$ 55.00
TOTAL				**$ 3,395.00**

SUMMARY OF DIRECT EXPENSES
Fort Bend Parkway T&R Study Update

Direct Expenses:	Unit of Measure	Contract Maximum Rates	Unit Cost	Taxes/Fees	Net Cost	Quantity	Total Cost
Travel Expenses (Set rates inaccordance with State of Texas Travel Rates)							
Lodging (taxes/fees not included)	Day / Per Person	$85.00/Day/Per Person	$ 85.00		$ 85.00	0	$0.00
Meals (Overnight stay required)	Day / Per Person	$36.00/Day/Per Person	$ 36.00		$ 36.00	0	$0.00
Mileage	Per Mile	Based on Texas State Comptroller	$ 0.485		$ 0.485	120	$58.20
Other Miscellaneous Expenses							
8.5" X 11" black & white copies	Each	$0.10/sheet	$ 0.10		$ 0.10	10	$1.00
11" X 17" black & white copies	Each	$0.20/sheet	$ 0.20		$ 0.20	0	$0.00
8.5" x 11" color copies	Each	$1.00/sheet	$ 1.00		$ 1.00	0	$0.00
11" x 17" color copies	Each	$2.00/sheet	$ 2.00		$ 2.00	10	$20.00
Binding for Reports	Each	$5.00/report	$ 5.00		$ 5.00	0	$0.00
Courier Service	Each	$20.00/each	$ 20.00		$ 20.00	0	$0.00

SUMMARY
Fort Bend Parkway T&R Study Update

Total Labor	$10,669.40
Total OH 168.49%	$17,976.87
Total FF 15.00%	$4,296.94
Total Direct Non-Salary Expenses	$3,482.00
TOTAL PBS&J	$36,425.21