

STATE OF TEXAS           §  
   §  
 COUNTY OF FORT BEND §

## PROFESSIONAL ENGINEERING SERVICES AGREEMENT

**THIS AGREEMENT** is made and entered into by and between FORT BEND COUNTY, TEXAS, a public body corporate and politic of the State of Texas acting by and through the Fort Bend County Commissioners Court (hereinafter referred to as "County") and Edminster, Hinshaw, Russ and Associates, Inc., (hereinafter referred to as "Engineer,") authorized to conduct business in the State of Texas.

### WITNESSETH

WHEREAS, County proposes to construct a new Traffic Signal at Harlem Road and Madden Road/West Bellfort Road, located in Fort Bend County, Texas, as part of the 2007 Fort Bend County Mobility Program, hereinafter referred to as the "Project;" and,

WHEREAS, County desires to enter into this Agreement for the performance by Engineer of professional services related to the Project; and,

WHEREAS, County has determined that this Agreement is for personal or professional services and therefore exempt from competitive bidding under Chapter 262, TEXAS LOCAL GOVERNMENT CODE; and

WHEREAS, County has determined that this Agreement serves a public purpose.

NOW THEREFORE, in consideration of the mutual covenants and conditions set forth below, the parties agree as follows:

### AGREEMENT

#### SECTION I SCOPE OF AGREEMENT

- 1.01 Engineer shall render professional services to County related to the Project as described in each executed Work Authorization, a sample of which is attached as Attachment A.
- 1.02 Engineer shall use all best efforts to perform all professional services agreed hereunder in a manner satisfactory and acceptable to County, in keeping with the highest professional standard of care provided by engineers in similar projects. Engineer shall use its best efforts to ensure that all services provided hereunder shall be suitable for their intended use.
- 1.03 Engineer shall use all best efforts and measures to implement its responsibilities under this Agreement to safeguard County against defects and deficiencies in the completed services provided under this Agreement. However, Engineer will promptly inform County whenever defects and deficiencies in the completed service are observed, or when

any observed actions or omissions are undertaken which are not in the best interest of County and the Project.

- 1.04 At the request of County, Engineer shall provide appropriate personnel for conferences at its offices, or attend conferences at the various offices of County, or at the site of the Project, and shall permit inspections of its offices by County, or others when requested by County.
- 1.05 If requested by County, or on its behalf, Engineer shall prepare such engineering exhibits and plans as may be requested for all hearings related to the Project, and, further, it shall prepare for and appear at conferences at the office of the County's Engineer, hereinafter referred to as "County Project Manager," and shall furnish competent expert engineering witnesses to provide such oral testimony and to introduce such demonstrative evidence as may be needed throughout all trials and hearings with reference to any litigation relating to the Project.

## SECTION II THE ENGINEER'S COMPENSATION

- 2.01 For and in consideration of the services rendered by Engineer, and subject to the limit of appropriation under Section XVI, County shall pay to Engineer an amount not to exceed \$36,015.00, including all reimbursable expenses.
- 2.02 Progress payments for authorized work detailed in Work Authorizations will be made when Engineer has attained a level of completion equal to or greater than agreed upon milestones of completion, as determined solely by County.
- 2.03 Engineer shall not provide any services under this Agreement until authorized by County in writing.
- 2.04 Engineer shall submit invoices to County as detailed in Section 2.05 below and County shall pay each invoice within thirty (30) days after the County Project Manager's written approval provided however, that the approval or payment of any invoice shall not be considered to be conclusive evidence of performance by the Engineer to the point indicated by such invoice or of receipt or acceptance by the County of the services covered by such invoice.
- 2.05 Engineer shall submit to County two (2) copies of invoices detailing the amounts due for services performed during the previous month, set forth separately for work under this Agreement, and accompanied by a progress report indicating the percent complete for the Schedule of Values describing the tasks performed in all applicable Work Authorizations in a form acceptable to County. County shall reserve the right to withhold any payment pending verification of satisfactory work performed. County shall process all uncontested invoices within thirty (30) calendar days.

## SECTION III TIME OF PERFORMANCE

- 3.01 This Agreement shall become effective upon execution of the last party and shall terminate on or before October 31, 2010.
- 3.02 Services described under written Work Authorizations shall be completed in accordance with the schedules provided in said Work Authorizations or within such additional time as may be extended in writing by the County.

- 3.03 Any services provided by Engineer or any costs incurred by Engineer before issuance of a Work Authorization or after the expiration of a Work Authorization shall be ineligible for payment or reimbursement.

#### SECTION IV TERMINATION

- 4.01 County may terminate this Agreement at any time by providing thirty (30) days written notice to Engineer.
- 4.02 Upon receipt of such termination notice, Engineer shall discontinue all services in connection with the performance of this Agreement and shall proceed to cancel promptly all existing orders and contracts insofar as such orders or contracts are chargeable to this Agreement.
- 4.03 Within thirty (30) days after receipt of notice of termination, Engineer shall submit a statement, describing in detail the services performed under this Agreement to the date of termination.
- 4.04 County shall then pay Engineer that proportion of the services actually performed under this Agreement bear to the total services called for under this Agreement, less such payments on account of charges as have been previously made.
- 4.05 Copies of all completed or partially completed designs, drawings, electronic data files and specifications and reports of any kind prepared under this Agreement shall be delivered to the County when and if this Agreement is terminated in the manner and for the purposes provided in this Agreement.

#### SECTION V INSPECTIONS OF ENGINEER'S BOOKS AND RECORDS

Engineer shall permit County, or any duly authorized agent of the County, to inspect and examine all books and records of the Engineer for the purpose of verifying the amount of work performed on the Project by Engineer. County's right to inspect survives the termination of this Agreement for a period of four (4) years.

#### SECTION VI OWNERSHIP AND REUSE OF DOCUMENTS

- 6.01 All documents, including original drawings, electronic files, correspondence, estimates, specifications, field notes, and data created, produced, developed or prepared by Engineer or its approved outside advisory or support consultants (collectively, the "Documents") shall be the property of County.
- 6.02 County shall not be entitled to any Documents not deemed "final" by the Engineer until termination of this Agreement.
- 6.03 Engineer shall deliver all Documents to County within thirty (30) days of the termination of this Agreement and may retain a set of reproducible record copies of the documents, provided that Engineer has received full compensation due pursuant to the terms of this Agreement. County shall use the Documents solely in connection with the Project and for no other purposes, except with the express written consent of Engineer, which consent will not be unreasonably withheld. Any use of the Documents without the express written

consent of the Engineer will be at the County's sole risk and without liability or legal exposure to Engineer.

- 6.04 County shall also be the owner of all intellectual property rights of the services rendered hereunder, including all rights of copyright therein. County and Engineer agree that the services provided are a "work for hire" as the term is used in the federal Copyright Act. Moreover, Engineer's worldwide right, title and interest in and to such work product and all rights of copyright therein.
- 6.05 Any trademarks, trade names, service marks, logos, or copyrighted materials of County are permit only for use in connection with the services and shall not be used without County's consent and shall remain in the sole and exclusive properties of County.

## SECTION VII PERSONNEL, EQUIPMENT, AND MATERIAL

- 7.01 Engineer represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the professional services required under this Agreement. Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel and equipment to perform the professional services when and as required and without delays.
- 7.02 County will approve assignment and release of all key Engineer personnel and that the Engineer shall submit written notification of all key Engineer personnel changes for the County's approval prior to the implementation of such changes. For the purpose of this agreement, key Engineer personnel are defined in Attachment C, Key Personnel. Services described in this Agreement shall be performed under the direction of an engineer licensed to practice professional engineering in the State of Texas.
- 7.03 All employees of Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them to the standard stated in this Agreement. Any employee of the Engineer who, in the opinion of the County, is incompetent or by his conduct becomes detrimental to the Project shall, upon request of the County, immediately be removed from association with the Project.
- 7.04 Except as otherwise specified herein, Engineer shall furnish all equipment, transportation, supplies, and materials required to provide all services subject to this Agreement.

## SECTION VIII ITEMS TO BE FURNISHED TO ENGINEER BY THE COUNTY

County shall provide to Engineer copies of preliminary studies, assistance in the coordination with all utility companies and assistance in coordination with all public and governmental entities.

## SECTION IX ENGINEER'S INSURANCE REQUIREMENTS

- 9.01 Engineer shall obtain and maintain, throughout the term of the Agreement, insurance of the types and in the minimum amounts set forth below.

9.02 Engineer shall furnish certificates of insurance to County evidencing compliance with the insurance requirements hereof. Certificates shall indicate name of Engineer, name of insurance company, policy number, term of coverage and limits of coverage. Engineer shall cause its insurance companies to provide County with at least 30 days prior written notice of any reduction in the limit of liability by endorsement of the policy, cancellation or non-renewal of the insurance coverage required under this Agreement. Engineer shall obtain such insurance from such companies having Bests rating of A- or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:

A. Workers' Compensation Insurance in accordance with the laws of the State of Texas, or state or hire/location of Services, and Employers' Liability coverage with a limit of not less than \$500,000 each employee for Occupational Disease, \$500,000 policy limit for Occupational Disease; and Employer's Liability of \$1,000,000 each accident.

B. Commercial General Liability Insurance including coverage for Products/Completed Operations, Blanket Contractual, Contractors' Protective Liability Broad Form Property Damage, Personal Injury/Advertising Liability, and Bodily Injury and Property Damage with limits of not less than:

\$1,000,000	general aggregate limit
\$325,000	each occurrence, combined single limit
\$325,000	aggregate Products, combined single limit
\$325,000	aggregate Personal Injury/Advertising Liability
\$50,000	Fire Legal Liability
\$5,000	Premises Medical

C. Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$300,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.

D. Professional Liability insurance with limits not less than \$2,000,000 each claim/annual aggregate.

9.03 County and the County Commissioners shall be named as additional insureds on all coverages required above with the exception of Workers Compensation Insurance, Employers Liability Insurance and Professional Liability Insurance. The Workers Compensation Insurance written on behalf of Engineer shall contain a waiver of subrogation in favor of County and County Commissioners.

## SECTION X INDEMNIFICATION

10.01 ENGINEER SHALL INDEMNIFY, DEFEND AND HOLD COUNTY HARMLESS FROM EACH AND EVERY CLAIM, DEMAND, SUIT, ACTION, PROCEEDING,

LIEN OR JUDGMENT CAUSED BY OR ARISING OUT OF, DIRECTLY OR INDIRECTLY, OR IN CONNECTION WITH THE ACTS AND OMISSIONS OF ENGINEER PURSUANT TO THIS AGREEMENT.

- 10.02 Engineer shall timely report all such matters to County and shall, upon the receipt of any such claim, demand, suit, action, proceeding, lien or judgment, not later than the fifteenth day of each month, provide County with a written report on each such matter covered by this paragraph and by Section 10.03 below, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of County required by Engineer in the defense of each matter.
- 10.03 County shall timely forward to ENGINEER copies of any and all claims, demands, suits, actions, proceedings or judgments which it may receive and which it may contend is covered by this section. Thereafter, County shall fully cooperate with Engineer in its defense of each such matter.
- 10.04 ENGINEER'S DUTY TO DEFEND INDEMNIFY AND HOLD COUNTY HARMLESS SHALL BE ABSOLUTE. IT SHALL NOT ABATE OR END BY REASON OF THE EXPIRATION OR TERMINATION OF THIS AGREEMENT UNLESS OTHERWISE AGREED BY COUNTY IN WRITING. THE PROVISIONS OF THIS SECTION SHALL SURVIVE THE TERMINATION OF THE AGREEMENT AND SHALL REMAIN IN FULL FORCE AND EFFECT WITH RESPECT TO ALL SUCH MATTERS NO MATTER WHEN THEY ARISE.
- 10.05 In the event of any dispute between the parties as to whether a claim, demand, suit, action, proceeding, lien or judgment appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of Engineer, Engineer shall nevertheless fully defend such claim, demand, suit, action, proceeding, lien or judgment until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of Engineer are not at issue in the matter. In such event, County shall promptly reimburse Engineer for its costs of defense.
- 10.06 In the event that any such matter being so defended by Engineer also involves any claim of negligence or wrongful action by County, County shall have the obligation to participate in the defense of the matter through separate counsel.
- 10.07 Engineer shall have full authority to resolve all matters being defended by it providing such settlement(s) shall not involve any findings adverse to County and shall not involve or require any payments or contributions by County.
- 10.08 In the event of any final judicial determination or award of any matter covered by this section, County shall be responsible to third parties, pro rata, for any negligence determined to have been caused by County.
- 10.09 Engineer's indemnification shall cover, and Engineer shall indemnify County, in the manner provided for and to the extent described above, in the event County is found to have been negligent for having selected Engineer to perform the work described in this Agreement.
- 10.10 The provision by Engineer of insurance shall not limit the liability of Engineer under this Agreement.
- 10.11 Engineer shall cause all contractors and consultants who may have a contract to perform construction or installation work in the area where work will be performed under this Agreement, to agree to indemnify County and to hold County harmless from all claims

- for bodily injury and property damage that may arise from said contractor or consultant's operations. Such provisions shall be in form satisfactory to County.
- 10.12 County shall be exempt from, and in no way liable, for, any sums of money which may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of Engineer providing such insurance.

## SECTION XI DISPUTE RESOLUTION

- 11.01 In the event of a dispute related to the breach of this Agreement that cannot be settled through negotiation, County and Engineer agree to submit the dispute to mediation.
- 11.02 In the event County or Engineer desire to mediate any dispute, that party shall notify the other party in writing of the dispute desired to be mediated. If the parties are unable to resolve their differences within 10 days of the receipt of such notice, such dispute shall be submitted for mediation.
- 11.03 All expenses associated with mediation shall be shared 50 percent (50%) by each party.
- 11.04 The requirement to seek mediation shall be a condition required before filing an action at law or in equity.

## SECTION XII NOTICE

- 12.01 Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States Post Office, addressed to County or Engineer at the addresses set forth below.
- 12.02 If mailed, any notice or communication shall be deemed to be received three days after the date of deposit in the United States Mail.
- 12.03 Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:

A. If to Engineer:

Raymond "Ray" Chong, PE., PTOE  
Edminster, Hinshaw, Russ and Associates, Inc.  
10555 Westoffice Drive  
Houston, Texas 77042

B. If to County notice must be sent to the County Project Manager:

D. Jesse Hegemier  
County Engineer  
1124-52 Blume Road  
Rosenberg, Texas 77471

- 12.04 Either party may designate a different address by giving the other party ten (10) days written notice.

### SECTION XIII REPORTS OF ACCIDENTS

- 13.01 Within 24 hours after the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of Engineer), Engineer shall send a written report of such accident or other event or County, setting forth a full and concise statement of the facts pertaining thereto.
- 13.02 Engineer shall also immediately send County a copy of any summons, subpoena, notice, other documents served upon Engineer, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from Engineer's performance of work under this Agreement.

### SECTION XIV LIMITATIONS

Notwithstanding anything herein to the contrary, all covenants and obligations of County under this Agreement shall be deemed to be valid covenants and obligations only to extent authorized by the Act creating County and permitted by the laws and the Constitution of the State of Texas. This Agreement shall be governed by the laws of the State of Texas, and no officer, director, or employee of County shall have any personal obligation hereunder.

### SECTION XV LIMIT OF APPROPRIATION

- 16.01 Prior to the execution of this Agreement, Engineer has been advised by County, and Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence to this Agreement, that County shall have available the total maximum sum of \$36,015.00, including reimbursable expenses, if any, specifically allocated to fully discharge any and all liabilities which may be incurred by County.
- 16.02 Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Engineer may become entitled to hereunder and the total maximum sum that County shall become liable to pay to Engineer hereunder shall not under any conditions, circumstances or interpretations thereof exceed the sum of \$36,015.00 for described scope of services in all executed Work Authorizations.

### SECTION XVI SUCCESSORS AND ASSIGNS

- 17.01 County and Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement.
- 17.02 Neither County nor Engineer shall assign, sublet or transfer its interest in this Agreement without the prior written consent of the other.



## SECTION XVII PUBLIC CONTACT

- 18.01 Contact with any media, citizens of Fort Bend County or governmental agencies shall be the sole responsibility of County.
- 18.02 Under no circumstances, whatsoever, shall Engineer release any material or information developed or received from County in the performance of its services hereunder without the express written permission of County, except where required to do so by law.

## SECTION XVIII MODIFICATIONS

This instrument contains the entire Agreement between the parties relating to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force and effect excepting a subsequent written modification signed by both parties hereto.

## SECTION XIX MISCELLANEOUS

- 20.01 By entering into this Agreement, the parties do not intend to create any obligations, express or implied, other than those specifically set out in this Agreement.
- 20.02 Nothing contained in this Agreement shall create any rights or obligations in any party who is not a signatory to this Agreement.
- 20.03 Engineer agrees and understands that: by law, the Fort Bend County Attorney's Office may only advise or approve contracts or legal documents on behalf of its clients; the Fort Bend County Attorney's Office may not advise or approve a contract or other legal document on behalf of any other party not its client; the Fort Bend County Attorney's Office has reviewed this document solely from the legal perspective of its client; the approval of this document by the Fort Bend County Attorneys Office was offered solely to benefit its client; Engineer and other parties should not rely on this approval and should seek review and approval by their own respective legal counsel.
- 20.04 The captions of subtitle of the several sections and divisions of this Agreement constitute no part of the content hereof, but are only labels to assist in locating and reading the provisions hereof.
- 20.05 This Agreement shall be governed and construed in accordance with the laws of the State of Texas. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all disputes arising hereunder and waive the right to sue or be sued elsewhere.
- 20.06 Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, Engineer shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

## SECTION XX APPENDICES

The Appendices attached to this Agreement, which consists of the following and are incorporated herein by reference as if set forth verbatim:

Attachment A	Scope of Work and Basis of Fee Calculation
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October 16, 2009

Mr. David Balmos, P.E.  
Department Manager – Road & Bridge  
Klotz Associates  
1160 Dairy Ashford Street, Suite 500  
Houston, Texas 77079

Re: Proposal for Professional Engineering and Surveying Services for  
Traffic Signal Design to serve  
Harlem Road at Madden Road/West Bellfort Road  
EHRA No. 091-069-00-PRO

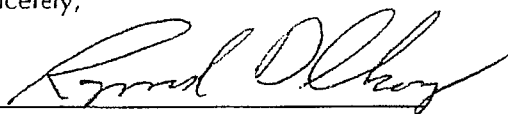
Dear Mr. Balmos:

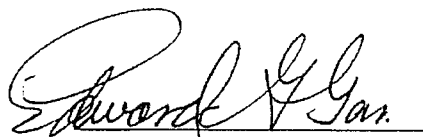
In response to your request, Edminster, Hinshaw, Russ and Associates, Inc. ("EHRA") is pleased to submit this proposal for traffic signal design services for Harlem Road at Madden Road/West Bellfort Road in Fort Bend County.

EHRA proposes to provide engineering and surveying services for the traffic signal design for a fixed fee of ~~\$30,500.00~~, as shown in the attached proposal. This includes basic engineering services for a fee of \$22,860.00, and basic surveying services in the amount of \$8,710.00. The fixed fee also includes additional engineering services for a fee of \$4,445.00, ~~plus additional surveying services in the amount of \$2,485.00.~~

Should you have any questions or require additional information, please contact us at 713.784.4500.

Sincerely,

  
Raymond "Ray" Chong, P.E., PTOE, PTP  
Department Manager  
Traffic Engineering & Transportation Planning

  
Edward G. Gamel, P.E.  
Vice President

RDC:hkp

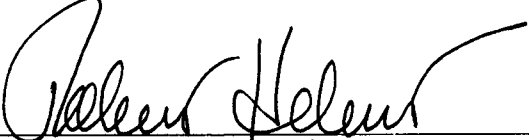
Attachments: Proposal

cc: Truman C. Edminster, P.E. – Firm  
Jim Russ – Firm  
Vally Swann, C.P.A. - Firm  
Don Mueller, R.P.L.S. - Firm  
Charles Kennedy, Jr., R.P.L.S. – Firm  
Bob Ring – Firm

SECTION XXI  
EXECUTION

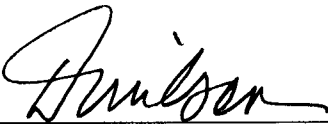
This Agreement shall not become effective until executed by all parties hereto.

FORT BEND COUNTY:

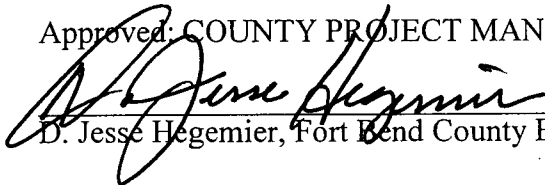
  
Robert E. Hebert, County Judge

11-17-09  
Date

Attest:

  
Dianne Wilson, County Clerk

Approved: COUNTY PROJECT MANAGER

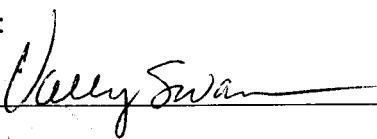
  
D. Jesse Hegemier, Fort Bend County Engineer

ENGINEER: Edminster, Hinshaw, Russ and Associates, Inc.

  
\_\_\_\_\_

11-4-09  
Date

Attest:

  
\_\_\_\_\_

MER:Engineering Services Agreement.3791-

**AUDITOR'S CERTIFICATE**

I hereby certify that funds are available in the amount of \$36,015.00 to accomplish and pay the obligation of the Fort Bend County under this contract.

  
Ed Sturdivant, Fort Bend County Auditor

October 16, 2009

Mr. David Balmos, P.E.  
Department Manager – Road & Bridge  
Klotz Associates  
1160 Dairy Ashford Street, Suite 500  
Houston, Texas 77079

Re: Proposal for Professional Engineering and Surveying Services for  
Traffic Signal Design to serve  
Intersection of Harlem Road at Madden Road/West Bellfort Road  
EHRA No. 091-069-00-PRO

Dear Mr. Balmos,

At your request, Edminster, Hinshaw, Russ and Associates, Inc. ("EHRA") has prepared this proposal to provide for traffic signal design services for Fort Bend County ("Owner") for Harlem Road at Madden Road/West Bellfort Road ("Project") in Fort Bend County, Texas in accordance with the following description of professional services, terms, and conditions.

Traffic Signal Design Engineer herein called ("Consultant"); Fort Bend County Engineering Department herein called ("FBCED"), and Fort Bend County Road & Bridge herein called ("FBCR&B").

### PROJECT DESCRIPTION

Traffic Signal Design for the above mentioned intersection(s) shall consist of:

The design for traffic signal equipment including, but not limited to traffic signal controller ("Naztec" type controller), traffic and pedestrian heads, pedestrian push button actuated (if necessary), camera design, road name signs, span wire, signal support poles and supporting structures (if necessary).

Roadway Design shall include: A minimum of geometric design including but not limited to signage and striping as required to create a functional signalized intersection for the ultimate major improvements are completed under the Fort Bend County Mobility Plan. Also, included plan layout and details for wheelchair ramps, pedestrian sidewalks in accordance with ADA requirements and TxDOT Standards.



Mr. David Balmos, P.E.

October 16, 2009

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#### **FBCED PROJECT MANAGER**

-or-

#### **FORT BEND COUNTY ENGINEERING**

Nathan D. Hatcher

Assistant to the County Engineer

P.O. Box 1449

1124 Blume Road

Rosenberg, Texas 77471

Phone 281.633-7515 Fax 281.342.7366

E-mail: [ndh@co.fort-bend.tx.us](mailto:ndh@co.fort-bend.tx.us)

#### **FORT BEND COUNTY ENGINEERING**

Louis E. Hood, P.E.

First Assistant County Engineer

P.O. Box 1449

1124 Blume Road

Rosenberg, Texas 77471

Phone 281.633-7510 Fax 281.342.7366

E-mail: [leh@co.fort-bend.tx.us](mailto:leh@co.fort-bend.tx.us)

Website: [www.fortbendcountygov.com](http://www.fortbendcountygov.com)

Design and develop traffic signal contract plans, proposal package, engineering documents, and related work necessary for new installation of electronic traffic signal control devices to be accomplished by contract bid letting. New traffic signal work typically includes installation of signal support poles and/or pedestals span wire, traffic and pedestrian signals, and traffic signal controller. If it is determined during construction, the design is not constructible due to Consultant design error; the Consultant will be responsible for correcting the design at no additional cost to the County. If the constructability is based on changes made by the County, the Consultant will be compensated.

#### **PERSONNEL**

Mr. Raymond Chong, P.E., PTOE, PTP, will be the Senior Engineer's Project Manager for this project. He will serve as the primary point of contact after authorization of the agreement.

#### **CONSULTANT PAYMENT – FIXED FEE**

Compensation for the Basic Services for this project shall be on a **fixed fee** basis. The proposal shall typically include an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, Subconsultant costs, and applied fixed fee for each task listed.

All payment for services will be paid monthly based on the percentage of completion of each task.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within thirty (30) days after the completion of services for the current billing. The final billing must be received within sixty (60) days of the completion of services. Refer to specific contract terms for payment will be contained in the Professional Services Agreement.



Mr. David Balmos, P.E.

October 16, 2009

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Only direct expenses listed, will be paid. All other expenses are considered part of the base fixed fee. Supporting documentation must be submitted with the billing for all eligible expenses on the project. Charges for this contract are those that are directly attributable to the activities of this project.

## **CONSULTANT RESPONSIBILITIES**

### **A. SPECIFIC RESPONSIBILITIES**

1. The Consultant shall arrange for design kick-off meeting with FBCED and FBCR&B to review the proposed signal design plans.

### **B. GENERAL RESPONSIBILITIES**

1. Proposed plan views must have a 1" = 30' scale when plotted to 11" x 17".
2. Perform design service including the design and preparation of base plans, preliminary (75%) plans, final plans, specifications, wiring diagrams, bills of materials, measurement and payment items, and cost estimates for all construction work for this project, including necessary alterations to power, lighting and interconnect facilities. Traffic signal work may include installation of signal support poles, pedestals, span wire, traffic and pedestrian signals, traffic signal controller, traffic loops, handholes, wireless interconnect, and video detection.
3. Utility coordination for this project will be done by the Consultant with assistance from FBCED. The Consultant must incorporate both private and public utility information into the design plans (both existing and proposed plans). The Consultant should anticipate attending utility coordination meetings as required (including on-site field meetings with the utility engineer and the affected utility companies in the area), and a plan review meeting. The Consultant will provide meeting minutes of all meetings for matters pertaining to traffic signal design.
4. In the performance of design service, govern all project design and plan work by the applicable codes, standards, and practices of the Texas Department of Transportation, or other approved standards hereinafter referred to as the department, and the current *Texas Manual of Uniform Traffic Control Devices*.
5. All documents prepared by the Consultant, including drawings, estimates, specifications, field notes, investigation studies, etc., are the property of Fort Bend County.
6. All plan sheets shall be developed using computer-aided drafting technology. The system shall be AutoCAD Version 2004 or higher, or one that processes data exactly as AutoCAD, no translations or system revisions being necessary by the FBCED.



Mr. David Balmos, P.E.

October 16, 2009

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7. Any existing or proposed pedestrian pushbuttons and ramps must be accessible per ADA guidelines and TxDOT design practices including:
  - a. Pushbutton must be within 24-inches from edge of sidewalk.
  - b. The pushbutton must be located in the middle of a 4-foot pushbutton landing (maximum slope of 2%).
  - c. ADA ramps are required at every crosswalk controlled by a pedestrian signal head.
  - d. A sidewalk is required to connect ADA ramps on each quadrant.
8. Perform sidewalk and ramp survey and design if not included in scope of road project on an "as needed" basis to comply with TxDOT design practices and ADA requirements. For all stop and go traffic signals, all ADA ramps will be replaced unless the existing ramps are compliant with the County's design practices and ADA guidelines. (Refer to Surveying Scope of Work).
9. The ADA ramp survey data must be sufficient for ramp and pushbutton design including (but not limited to):
  - a. Relative elevations, including at least two (2) horizontal and vertical control panels for future layout control for construction staking.
  - b. Curb (top back of curb) and gutter (at flow line and at edge) is to be collected through the curves with observations every 3-feet along the arc near existing or proposed ADA ramps. Outside existing or proposed ADA ramp areas, curb and gutter observations may be every 5-feet.
  - c. Drainage structures (and any other public and/or private utility located in or adjacent to the curb and gutter) near existing or proposed ADA ramps must be located because they can affect ADA ramp design.
  - d. If an ADA ramp exists, enough information must be collected to properly define the existing conditions.
  - e. Both ends of existing sidewalk joints must be mapped to determine limits of sidewalk replacement during ADA ramp design.





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#### **TASK 1: BASE PLAN PREPARATION**

1. Design and develop contract base plans necessary for new installation or modernization of electronic traffic signal control devices to be accomplished by the contract bid letting. Base plans include (but are not limited to):
  - a. Existing road Rights-Of-Way ("R-O-W").
  - b. Field measured/surveyed road and lane geometry and posted speed limits.
  - c. Field measured/surveyed locations of any visible utilities.
  - d. Proposed types and locations of poles and controller.
  - e. Proposed traffic and pedestrian signal head types and locations.
  - f. Proposed pushbuttons, traffic loops, and antennas.
  - g. Proposed traffic signal removal (if required) and installation plan(s).
  - h. Proposed phasing (as required).
  - i. Point of Contact Height ("POCH") diagram for proposed attachments to wood poles (not required for steel pole attachments).
2. Where applicable, the intersection and ADA ramp survey will be used to develop base plans.
3. If existing or proposed pole locations appear to be outside existing R-O-W, contact Nathan D. Hatcher (281-633-7515), FBCED.

#### **TASK 1: DELIVERABLES - BASE PLANS**

1. All traffic signal plans and interconnect sheets (no details required) in the following formats:
  - a. Five (5) 11" x 17" paper copies.
  - b. One (1) 11" x 17" .pdf file.



c. Distribute as follows:

- FBCED – Three (3) 11" x 17" paper copies and .pdf file.
- FBCR&B– Two (2) 11" x 17" paper copies.

## **TASK 2: UTILITY DOCUMENTATION**

1. Show existing utility information (as provided by utility companies) on proposed signal plans.
2. Identify and inform the FBCED of any utilities for which insufficient information was provided, and identify any utilities that may conflict with the proposed construction.
3. Attend utility coordination meeting(s) as required and document any additional utility information.

## **TASK 2: DELIVERABLES – UTILITY DOCUMENTATION**

1. Utility information.
2. Minutes of utility coordination meetings.

## **TASK 3: PRELIMINARY (75%) PLAN PREPARATION**

1. Design and develop preliminary (75%) contract plans necessary for new installation of electronic traffic control devices to be accomplished by contract bid letting. Preliminary (75%) plans include (in addition to base plan information):
  - a. Location and types of utilities as provided by the utility companies and resulting from utility coordination meeting(s) as required.
  - b. List of Materials and Quantities. (A minimum of at least two (2) vendors with appropriate contact information is required if possible).
  - c. Wiring diagram.
  - d. ADA ramp and pushbutton design (including existing and proposed elevations).
  - e. POCH diagrams.
  - f. Appropriate note blocks for contact persons, etc.



- g. Proper file names, levels, and text sizes.
- h. Any additional R-O-W required for existing and proposed traffic signal appurtenances.
- i. Attend plan review meeting at FBCED's office.

### **TASK 3: DELIVERABLES - PRELIMINARY (75%) PLANS**

1. All traffic signal plan sheets, including details.
2. All required special provisions, notices to bidders, and specifications in a format including a draft progress clause, a draft coordination clause, and a draft special provision for maintaining traffic.
3. Checklist of "typical" signal details to be used.

### **TASK 3: FORMAT DELIVERABLES**

1. Five (5) 11" x 17" paper copies.
2. One (1) electronic 11" x 17" .pdf file.
3. One (1) electronic bid quantities proposal form .pdf file.

### **TASK 3: DELIVERABLES DISTRIBUTION**

- FBCED – Three (3) 11" x 17" paper copies and .pdf file.
- FBCR&B– Two (2) 11" x 17" paper copies.
- TxDOT – One (1) 11" x 17" paper copy (if required).

### **TASK 4: UTILITY COORDINATION**

1. Actively work with FBCED personnel until utility conflicts are resolved. This includes, but is not limited to:
  - a. Staking proposed foundation locations in the field prior to the utility coordination field review.
  - b. Documenting additional utility information on the plans.
  - c. Revising plans to avoid utility conflicts.



#### **TASK 5: FINAL PLAN AND PROPOSAL PREPARATION**

1. Incorporate the department's comments (with returned check of list from 75% Preliminary Review Plans), of the plans and prepare complete detailed construction final plans, supplemental specifications, special provisions, measurements and payment items, estimates of quantities, span calculations, and Consultant's final estimates of cost for all necessary construction and related work included in this project.
2. During preparation of the final plans, make such alterations, corrections, and revisions to said plans and supporting materials as are deemed necessary and desirable by the department to insure conformance of plans to good design and standard practices and to have said plans and other material in proper form for receiving bids.
3. During preparation of the proposal, work with the FBCED personnel to obtain final bid proposal documents including progress clause, coordination clause, special provision for maintaining traffic, and utility relocation status (Form 2286).
4. Attend and provide electronic plans for any meetings. Make any final changes necessary.

#### **TASK 5: DELIVERABLES**

1. Upon completion of design services for this project and final approval thereof by the department, deliver to the department final plans, proposal and supporting documents. All CAD files must be AutoCAD 2004 or higher, and all .pdf files must be in Adobe Acrobat Version 6 or higher.

#### **TASK 5: FORMAT OF DELIVERABLES – FINAL PLANS**

1. Five (5) 11" x 17" paper copies of the full plan set. The title sheets must have original stamps and signatures and include a map of the area with work locations identified, a list of locations, and other items as determined by FBCED.
2. Electronic files of all signal plans.
3. Electronic (.pdf) 11" x 17" plan file.
4. Electronic (.pdf) proposal file.
5. Electronic (.pdf) files of all required supporting documents.



6. Editable electronic files of all supporting documents and of all files inserted into a proposal document. For example, submit the progress clause as an MS Word document in addition to the progress clause (.pdf), which will also be inserted into the proposal .pdf.
7. One (1) set of estimates of cost of construction (8-1/2" x 11" paper copy).
8. One (1) copy of all design computations as required for use by FBCED.
9. Upon request by the department, make available thereto all notes utilized in preparation of the plans, supplemental specifications, and cost estimates.
10. Checklist of "typical" signal details to be used.

#### **TASK 5: DISTRIBUTION OF DELIVERABLES**

- FBCED – Three (3) 11" x 17" paper copies and .pdf file.
- FBCR&B – Two (2) 11" x 17" paper copies.

#### **TASK 6: CONTRACT PHASE**

1. Assist the County in obtaining bids.
2. Attend pre-bid conferences and prepare addendums, if needed.
3. Assist in the tabulation and analysis of bids and furnish recommendations on the award of the construction contract.

#### **TASK 7: CONSTRUCTION PHASE**

1. Attend and assist County in pre-construction conferences.
2. Make periodic visits to determine, in general, if the work is proceeding in accordance with the contract documents.
3. Review shop and working drawings, furnished by Contractors, for compliance with design concepts and specifications and with the information given in the contract documents.
4. Review monthly and final estimates on forms provided by the County, for payments to the Contractor.
5. Assist in reviewing change order pricing and quantities.



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## COMPENSATION FOR BASIC ENGINEERING SERVICES

<b>WORK TASK BASIC ENGINEERING SERVICES</b>	<b>Senior Project Manager</b>	<b>Assistant Project Manager</b>	<b>Design CAD Tech.</b>	<b>Clerical</b>	<b>Task Hours</b>	<b>Task Costs</b>
TASK 1 - Base Plan Preparation & Deliverables	3	20	15	4	42	\$4,190.00
TASK 2 - Utility Documentation & Deliverables	1	11	8	2	22	\$2,180.00
TASK 3 - Preliminary (75%) Plan Preparation & Deliverables	4	41	30	5	80	\$8,045.00
TASK 4 - Utility Coordination	0	7	4	2	13	\$1,240.00
TASK 5 - Final Plan and Proposal Preparation & Deliverables	2	21	15	4	42	\$4,160.00
TASK 6 - Contract Phase	1	6	0	4	11	\$1,020.00
TASK 7 - Construction Phase	3	10	0	2	15	\$1,630.00
<b>Total Hours</b>	<b>14</b>	<b>116</b>	<b>72</b>	<b>23</b>	<b>225</b>	<b>\$22,465.00</b>
<b>RATE</b>						
Raw Salary Rate	\$46.67	\$36.67	\$30.00	\$18.33		
O/H & Profit Multiplier	3.0	3.0	3.0	3.0		
Loaded Billing Rate	\$140.00	\$110.00	\$90.00	\$55.00		
<b>REIMBURSABLES &amp; EXPENSES</b>						
Mileage - (0.55/Mile)		300				\$165.00
Photocopies (8.5" x 11")(\$0.10/Each)		300				\$30.00
Photocopies (11" x 17")(\$0.40/Each)		500				\$200.00
<b>Total Reimbursables &amp; Expenses</b>						<b>\$395.00</b>
<b>Total Engineering Fee</b>						<b>\$22,860.00</b>

## ADDITIONAL SCOPE OF SERVICES FOR BASIC ENGINEERING SERVICES

The Consultant, upon prior written authorization from the County Engineer, shall furnish the following additional services, and the County shall compensate the Consultant therefore as set forth below:

1. Traffic Control Plan Drawings for paving within each intersection.
2. Changes in the drawings and specifications requested by the County, which are outside the scope of the project.
3. A set of 3 mil mylar reproducible record drawings prepared and delivered to the County showing those changes made during the construction period based on change orders, marked up prints, drawings, and other data furnished by the Contractor to the Consultant and which the Consultant considers significant. The Consultant will also furnish the County a copy of the AutoCAD format graphic files of the record drawings when prepared through computer aided drafting and a laminated 11" x 17" sheet showing the "signal layout" as constructed. Also, one set of all drawings in AutoCAD Release 2004 (or higher) DWG or DXF format, CD-ROM media.



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## COMPENSATION FOR ADDITIONAL ENGINEERING SERVICES

WORK TASK ADDITIONAL ENGINEERING SERVICES	Senior Project Manager	Assistant Project Manager	Design CAD Tech.	Clerical	Task Hours	Task Costs
TASK 1 - Traffic Control Plan	2	15	11	2	30	\$3,030.00
TASK 2 - Changes to Drawings and/or Specifications	1	6	4	1	12	\$1,215.00
<b>Total Hours</b>	<b>3</b>	<b>21</b>	<b>15</b>	<b>3</b>	<b>42</b>	<b>\$4,245.00</b>
<b>RATE</b>						
Raw Salary Rate	\$46.67	\$36.67	\$30.00	\$18.33		
O/H/ & Profit Multiplier	3.0	3.0	3.0	3.0		
Loaded Billing Rate	\$140.00	\$110.00	\$90.00	\$55.00		
<b>REIMBURSABLES &amp; EXPENSES</b>						
One copy of ACAD Drawing and 11"x17" Signal Layout Sheet		1				\$200.00
<b>Total Reimbursables &amp; Expenses</b>						<b>\$200.00</b>
<b>Total Engineering Fee</b>						<b>\$4,445.00</b>

Any additional services, if required, will be compensated at the following rates:

Classification	Base Rate	Multiplier	Billing Hourly Rate
Senior Project Manager	\$46.67	3	\$140.00
Assistant Project Manager	\$36.67	3	\$110.00
Design CAD Technician	\$35.00	3	\$90.00
Clerical	\$18.33	3	\$55.00

Any additional Reimbursable Expenses:

- Mileage @ \$0.55 per mile
- Printing 8.5"x11" @ \$0.10 per sheet
- Printing 11" x 17" @ \$0.40 per sheet

## TRAFFIC SIGNAL BASIC SURVEYING SCOPE OF SERVICES

The Consultant and its Surveyor will perform the surveying services at the following intersections in Fort Bend County, Texas.

The scope of services will be as outlined in the following items:

1. Surveyor will perform topographic survey of the intersections listed above. The survey limits will be within the R-O-W at 200-feet north, south, east and west from the intersection of the R-O-W's. The topographic survey will:



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- a. Locate R-O-W based on found monuments and record information.
  - b. Stake a baseline at 100-foot intervals.
  - c. Locate paving, pavement markings, traffic signals, visible utilities and record utilities, pipelines, fences, and signs indicating type and size.
  - d. Provide elevations based on an assumed benchmark along curb returns and sidewalks at quadrants of the intersection. Provide elevations along medians located at the intersection.
  - e. Provide black line copies of plan view drawings at a scale of 1-inch to 20-feet on a 24"x36" sheet size, half scale drawings on an 11" x 17" sheet size and a digital data file in AutoCAD 2004 (or higher).
2. Surveyor will perform sidewalk and ramp survey and design if not included in scope of road project on as "as needed" basis to comply with TxDOT design practices and ADA requirements.
3. The ADA ramp survey data must be sufficient for ramp and pushbutton design including (but not limited to):
  - a. Relative elevations, including at least two (2) horizontal and vertical control points for future layout control for construction staking.
  - b. Curb (top back of curb) and gutter (at flow line and at edge) is to be collected through the curves with observations every 3-feet along the arc near existing or proposed ADA ramps. Outside existing or proposed ADA ramp areas, curb and gutter observations may be every 5-feet.
  - c. Drainage structures (and any other utility located in or adjacent to the curb and gutter) near existing or proposed ADA ramps areas must be located because they can affect ADA ramp design.
  - d. If an ADA ramp exists, enough information must be collected to properly define the existing conditions.
  - e. Both ends of existing sidewalk joints must be mapped to determine limits of sidewalk replacement during ADA ramp design.





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## COMPENSATION FOR BASIC SURVEYING SERVICES

WORK TASK BASIC SURVEYING SERVICES	Sr. Survey Project Manager	Surveyor Field Supervisor	Survey Party Chief	Survey Instrument Man	Survey Rod Man	Senior Survey CAD Tech.	CAD Tech.	Task Hours	Task Costs
TASK 1 - Establish GPS Horiz. & Vert. Control	1	0	10	10	10	4	4	39	\$2,235.00
TASK 2 - Utility Research	0	0	0	0	0	0	0	0	\$0.00
TASK 3 - Determine Street ROW Lines	2	2	10	10	10	0	0	48	\$3,090.00
TASK 4 - Locate Improvements, Utilities, Trees, etc.	0.5	1	5	5	5	3	0	19.5	\$1,142.50
TASK 5 - Obtain Street Cross Sections	0.5	1	5	5	5	2	0	18.5	\$1,047.50
TASK 6 - Prepare As-Built Conditions Map (1" = 20')	1	1	0	0	0	0	12	14	\$1,185.00
<b>Total Hours</b>	<b>5</b>	<b>5</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>17</b>	<b>22</b>	<b>139</b>	<b>\$8,700.00</b>
<b>RATE:</b>									
Raw Salary Rate	\$45.00	\$30.00	\$23.33	\$16.67	\$6.67	\$31.67	\$26.67		
O/H & Profit Multiplier	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Loaded Billing Rate	\$135.00	\$90.00	\$70.00	\$50.00	\$20.00	\$95.00	\$80.00		
<b>REIMBURSABLES &amp; EXPENSES</b>									
GPS Equipment 0 Day @ \$300/Day		0							\$0.00
Land Title Abstracting @ Cost (See Additional Services)		\$0.00							\$0.00
Reproduction, Plotting & Parking (Lump Sum)		1							\$10.00
Deliveries 0 @ \$40/Each		0							\$0.00
<b>Total Reimbursables &amp; Expenses</b>									<b>\$10.00</b>
<b>Total Survey Fee</b>									<b>\$8,710.00</b>

## ADDITIONAL SURVEYING SERVICES

Additional services, if needed, will be considered outside the scope of the lump sum fee. The following items are considered additional services and are not part of the basic Scope of Services:

- The Surveyor will provide construction staking of the following items:
  - Control points.
  - Location of signal poles.
  - Wheelchair ramp locations at intersection.
- The Surveyor will provide abstracting of ownership of property contiguous to the Project area.
  - Abstracting lump sum per intersection location.



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## COMPENSATION FOR ADDITIONAL SURVEYING SERVICES

WORK TASK ADDITIONAL SURVEYING SERVICES	Sr. Survey Project Manager	Survey Field Supervisor	Survey Party Chief	Survey Instrument Man	Survey Rod Man	Senior Survey CAD Tech.	CAD Tech.	Task Hours	Task Costs
TASK 1 - Stakeout Poles, Controller, Ramps & ROW	1	1	8	8	8	2	0	28	\$1,535.00
TASK 2 - Stakeout Contractor Controls	1	1	2	2	2	1	0	9	\$600.00
<b>Total Hours</b>	<b>2</b>	<b>2</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>3</b>	<b>0</b>	<b>37</b>	<b>\$2,135.00</b>
<b>RATE</b>									
Raw Salary Rate	\$45.00	\$30.00	\$23.33	\$16.33	\$6.67	\$31.67	\$26.67		
O/H & Profit Multiplier	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Loaded Billing Rate	\$135.00	\$90.00	\$70.00	\$50.00	\$20.00	\$95.00	\$80.00		
<b>REIMBURSABLES &amp; EXPENSES</b>									
GPS Equipment @ Day @ \$300/Day		0							\$0.00
Land Title Abstracting @ Cost		\$350.00							\$350.00
Reproduction, Plotting & Parking (Lump Sum)		0							\$0.00
Deliveries @ \$40/Each		0							\$0.00
<b>Total Reimbursables &amp; Expenses</b>									<b>\$350.00</b>
<b>Total Surveying Fee</b>									<b>\$2,485.00</b>

Hourly rates for other additional Surveying services, if required. The following hourly rates will be used to calculate compensation for additional surveying services:

Classification	Base Rate	Multiplier	Billing Hourly Rate
Senior Survey Project Manager	\$45.00	3	\$135.00
Survey Party Chief	\$23.33	3	\$70.00
Survey Instrument Man	\$16.67	3	\$50.00
Survey CAD Technician	\$31.67	3	\$95.00
Clerical	\$18.33	3	\$55.00

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## SUMMARY OF COMPENSATION

### TASK DESCRIPTION

### TOTAL COST

#### BASIC ENGINEERING SERVICES

Labor	\$22,465.00
Reimbursables	\$395.00
<b>TOTAL BASIC ENGINEERING SERVICES</b>	<b>\$22,860.00</b>

#### BASIC SURVEYING SERVICES

Labor	\$8,700.00
Reimbursables	\$10.00
<b>TOTAL BASIC SURVEYING SERVICES</b>	<b>\$8,710.00</b>

#### ADDITIONAL ENGINEERING SERVICES

Labor	\$4,245.00
Reimbursables	\$200.00
<b>TOTAL ADDITIONAL ENGINEERING SERVICES</b>	<b>\$4,445.00</b>

#### ~~ADDITIONAL SURVEYING SERVICES~~

<del>Labor</del>	<del>\$2,135.00</del>
<del>Reimbursables</del>	<del>\$350.00</del>
<del><b>TOTAL ADDITIONAL SURVEYING SERVICES</b></del>	<del><b>\$2,485.00</b></del>

### GRAND TOTAL

**\$38,500.00**

### FBCED RESPONSIBILITIES

#### A. County Review

FBCED will review and comment on the base plan, the preliminary (75%) plan, and the Final (100%) plan submittals. Additional plan review may be required dependent on completeness and accuracy of the plans submitted. FBCED may also receive comments from TxDOT when applicable.

#### B. Information Services to be provided by FBCED:

- a. Appropriate traffic and safety notes.
- b. Available plans and/or layout drawings for each location.



- c. Available traffic counts and turning movement counts.
  - d. Available soil boring information will be provided.
  - e. Available traffic accident records during the past three (3) years for intersection.
  - f. Recent traffic signal plans, specifications and special provisions of similar project.
  - g. Available list of standard traffic signal hardware and software.
- C. Reference Documents and Standards to be Used:
- a. *National Manual of Uniform Traffic Control Devices.*
  - b. *Texas Manual of Uniform Traffic Control Devices.*
  - c. *Texas Vehicle Code.*
  - d. Local and national electrical codes.
  - e. Texas Department of Transportation "Standard Specifications for Construction and Maintenance of Highways, Street and Bridges".

## PROJECT COORDINATION

Coordinate design service with FBCED and FBCR&B overhead and/or underground utility/telephone companies.

## PROJECT SCHEDULE

Prepare and submit to the FBCED a schedule for each task and total calendar days for completing the project. The work shall be completed commencing from the date of work authorization to the Consultant. The time allocated for any necessary utility coordination meeting, soil boring investigations, and the department review shall be shown in the Consultant's work schedule.