

STATE OF TEXAS                   §  
   §  
 COUNTY OF FORT BEND         §

**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**

(Powerline Road, Seg. 2- Project No. 23406)

This Agreement for Professional Engineering Services (“Agreement”) is made and entered into by and between Fort Bend County, Texas (“County”), a political subdivision of the state of Texas, and Entech Civil Engineers, Inc. (“Engineer”), a Texas corporation. County and Engineer may be referred to individually as a “Party” or collectively as the “Parties.”

WHEREAS, Engineer provides professional engineering services in the Greater Houston Area; and

WHEREAS, County desires for Engineer to provide such services for design and construction services for Powerline Road, Seg. 2 under Mobility Bond Project No. 23406; and

WHEREAS, Engineer represents that it is qualified and desires to perform such services for County; and

WHEREAS, pursuant to the requirements of Chapter 2254 of the Texas Government Code, County has determined that Engineer is the most highly qualified provider of such professional services and the Parties have negotiated a fair and reasonable price for the same; and

WHEREAS, this Agreement is not subject to competitive bidding requirements under Section 262.023 of the Texas Local Government Code because this Agreement is for professional engineering services and may not be competitively bid pursuant to Chapter 2254 of the Texas Government Code.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, the Parties do mutually agree as follows:

1.     **Recitals.** The recitals set forth above are incorporated herein by reference and made a part of this Agreement.
2.     **Scope of Services.** Engineer shall render services to County as provided in Engineer’s Proposal attached hereto as “Exhibit A” and incorporated herein by reference (the “Services”).

3. **Time for Performance.** Time for performance for the Services provided under this Agreement shall begin with Engineer's receipt of Notice to Proceed and shall end no later than December 31, 2028. Engineer shall complete such tasks described in the Scope of Services, within this time or within such additional time as may be extended by County.

4. **Compensation and Payment Terms.**

Engineer's fees for the Services shall be calculated at the rate(s) set forth in Exhibit "A" attached hereto. The Maximum Compensation to Engineer for the Services performed under this Agreement is \$1,684,404.78. In no event shall the amount paid by County to Engineer under this Agreement exceed said Maximum Compensation without an approved change order.

(a) Engineer understands and agrees that the Maximum Compensation stated is an all-inclusive amount and no additional fee, cost or reimbursed expense shall be added whatsoever to the fees stated in the attached Exhibit "A."

(b) County will pay Engineer based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Engineer shall submit to County staff person designated by the County Engineer, one (1) electronic (pdf) copy of the invoice showing the amounts due for services performed in a form acceptable to County. Engineer shall submit invoices no more frequently than on a monthly basis. County shall review such invoices and approve them within 30 calendar days with such modifications as are consistent with this Agreement and forward same to the Auditor for processing. County shall pay each such approved invoice within thirty (30) calendar days.

(c) Accrual and payment of interest on any overdue payments assessed by Engineer, if any, shall be governed by Chapter 2251 of the Texas Government Code.

(d) Engineer understands and agrees that County's obligation to make any payment(s) hereunder is dependent upon Engineer's completion of the Services in a timely, good, and professional manner and in accordance with the performance representations made in Section 25 of this Agreement. Therefore, County reserves the right to withhold payment pending verification of satisfactory work performed.

5. **Limit of Appropriation.** Engineer understands and agrees that the Maximum Compensation for the performance of the Services within the Scope of Services described in Section 2 above is \$1,684,404.78. In no event shall the amount paid by County under this Agreement exceed the Maximum Compensation without a County approved change order. Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of \$1,684,404.78 specifically allocated to fully discharge any and all

liabilities County may incur under this Agreement. 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 and the total maximum sum that County may become liable to pay Engineer under this Agreement shall not under any conditions, circumstances, or interpretations thereof exceed \$1,684,404.78.

6. **Non-appropriation.** Engineer understands and agrees that in the event no funds or insufficient funds are appropriated by the County under this Agreement, County shall immediately notify Engineer in writing of such occurrence and the Agreement shall thereafter terminate and be null and void on the last day of the fiscal period for which appropriations were received or made without penalty, liability or expense to the County. In no event shall said termination of this Agreement or County's failure to appropriate said funds be deemed a breach or default of this Agreement or create a debt by County in any amount(s) in excess of those previously funded.
7. **Taxes.** Engineer understands and agrees that County is a governmental entity and political subdivision of the state of Texas, and as such, is exempt from payment of any sales and use taxes. County shall furnish evidence of its tax-exempt status upon written request by Engineer.
8. **Insurance.** Prior to commencement of the Services, Engineer shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days' prior written notice to County. Engineer shall provide certified copies of insurance endorsements and/or policies if requested by County. Engineer shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Engineer shall obtain such insurance written on an Occurrence form from such companies having Best's rating of A/VII 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 in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
  - (b) Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
  - (c) Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and

products/completed operations arising out of the business operations of the policyholder.

- (d) Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
- (e) Professional Liability insurance with limits not less than \$1,000,000.

County and members of the Fort Bend County Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability (if required). All Liability policies written on behalf of Engineer shall contain a waiver of subrogation in favor of County.

If required coverage is written on a claims-made basis, Engineer warrants that any retroactive date applicable to coverage under the policy precedes the Effective Date of this Agreement and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning from the time the work under this Agreement is completed.

Engineer shall not commence any portion of the work under this Agreement until it has obtained the insurance required herein and certificates of such insurance have been filed with and approved by County.

No cancellation of or changes to the certificates, or the policies, may be made without thirty (30) days prior, written notification to County.

Approval of the insurance by County shall not relieve or decrease the liability of the Engineer.

9. **Indemnity. PURSUANT TO SECTION 271.904 OF THE TEXAS LOCAL GOVERNMENT CODE, ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS COUNTY, ITS OFFICIALS, OFFICERS, AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, LIABILITY, AND COSTS, INCLUDING THE REIMBURSEMENT OF REASONABLE ATTORNEY FEES, ARISING OUT OF OR RESULTING FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY ENGINEER OR ENGINEER'S AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH ENGINEER EXERCISES CONTROL. IN ADDITION, ENGINEER SHALL PROCURE AND MAINTAIN LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT.**

**ENGINEER SHALL TIMELY REPORT TO COUNTY ALL SUCH MATTERS ARISING UNDER THE INDEMNITY PROVISIONS ABOVE. UPON THE RECEIPT OF ANY CLAIM, DEMAND, SUIT,**

**ACTION, PROCEEDING, LIEN, OR JUDGMENT, AND NO LATER THAN THE FIFTEENTH DAY OF EACH MONTH, ENGINEER SHALL PROVIDE COUNTY WITH A WRITTEN REPORT ON EACH MATTER, 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. 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 RESULTS FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY ENGINEER, OR ITS AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH ENGINEER EXERCISES CONTROL, 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 SAID ACTS AND/OR OMISSIONS OF ENGINEER ARE NOT AT ISSUE IN THE MATTER.**

**THE INDEMNITY PROVISIONS OF THIS SECTION SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT HOWEVER CAUSED, AND NO PAYMENT, PARTIAL PAYMENT, OR ISSUANCE OF CERTIFICATION OF COMPLETION OF THE SERVICES UNDER THIS AGREEMENT BY COUNTY, WHETHER IN WHOLE OR IN PART, SHALL WAIVE OR RELEASE ANY OF THE PROVISIONS OF THIS SECTION.**

10. **Public Information Act.** Engineer expressly acknowledges and agrees that County is a public entity and as such, is subject to the provisions of the Texas Public Information Act under Chapter 552 of the Texas Government Code. In no event shall County be liable to Engineer for release of information pursuant to Chapter 552 of the Texas Government Code or any other provision of law. Except to the extent required by law or as directed by the Texas Attorney General, County agrees to maintain the confidentiality of information provided by Engineer expressly marked as proprietary or confidential. County shall not be liable to Engineer for any disclosure of any proprietary or confidential information if such information is disclosed under Texas law or at the direction of the Texas Attorney General. Engineer further acknowledges and agrees that the terms and conditions of this Agreement are not proprietary or confidential information.
11. **Compliance with Laws.** Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules, regulations, and the 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. Engineer, in providing all services hereunder, further agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.
12. **Independent Contractor.** In the performance of work or services hereunder, Engineer shall be deemed an independent Contractor, and any of its agents, employees, officers,

or volunteers performing work required hereunder shall be deemed solely as employees of Engineer. Engineer and its agents, employees, officers, or volunteers shall not, by performing work pursuant to this Agreement, be deemed to be employees, agents, or servants of County and shall not be entitled to any of the privileges or benefits of County employment.

13. **Use of Customer Name.** Engineer may use County's name without County's prior written consent only in Engineer's customer lists. Any other use of County's name by Engineer must have the prior written consent of County.
14. **County/County Data.** Nothing in this Agreement shall be construed to waive the requirements of Section 205.009 of the Texas Local Government Code.
15. **Personnel.** Engineer represents that it presently has, or is able to obtain adequate qualified personnel in its employment for the timely performance of the Services required under this Agreement and that Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Services when and as required and without delays.

All employees of Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee or agent of Engineer who, in County's opinion, is incompetent or by his conduct becomes detrimental to providing Services pursuant to this Agreement, shall, upon request of County, immediately be removed from association with the Services required under this Agreement.

When performing Services on-site at County's facilities, Engineer shall comply with, and will require that all Engineer's Personnel comply with, all applicable rules, regulations and known policies of County that are communicated to Engineer in writing, including security procedures concerning systems and data and remote access thereto, building security procedures, including the restriction of access by County to certain areas of its premises or systems for security reasons, and general health and safety practices and procedures.

16. **Confidential and Proprietary Information.** Engineer acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to County. Any and all information of any form obtained by Engineer or its employees or agents from County in the performance of this Agreement shall be deemed to be confidential information of County ("Confidential Information"). Any reports or other documents or items (including software) that result from the use of the Confidential Information by Engineer shall be treated with respect to confidentiality in the same manner as the Confidential Information. Confidential Information shall be deemed not to include information that (a) is or becomes (other than by disclosure by Engineer) publicly known or is contained in a publicly available document; (b) is rightfully in Engineer's possession without the obligation of nondisclosure prior to the time of its disclosure under this Agreement; or (c)

is independently developed by employees or agents of Engineer who can be shown to have had no access to the Confidential Information.

Engineer agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Engineer uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purposes whatsoever other than the provision of Services to County hereunder, and to advise each of its employees and agents of their obligations to keep Confidential Information confidential. Engineer shall use its best efforts to assist County in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Engineer shall advise County immediately in the event Engineer learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement and Engineer will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Engineer against any such person. Engineer agrees that, except as directed by County, Engineer will not at any time during or after the term of this Agreement disclose, directly or indirectly, any Confidential Information to any person, and that upon termination of this Agreement or at County's request, Engineer will promptly turn over to County all documents, papers, and other matters in Engineer's possession which embody Confidential Information.

Engineer acknowledges that a breach of this Section, including disclosure of any Confidential Information, or disclosure of other information that, at law or in equity, ought to remain confidential, will give rise to irreparable injury to County that is inadequately compensable in damages. Accordingly, County may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies that may be available. Engineer acknowledges and agrees that the covenants contained herein are necessary for the protection of the legitimate business interest of County and are reasonable in scope and content.

Engineer in providing all services hereunder agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

17. **Ownership and Reuse of Documents.** All work product and data produced or developed under this Agreement by Engineer including any documents, data, notes, reports, research, graphic presentation materials, and any other related material (collectively, "Materials"), shall at all times be the property of County. County, at all times, shall have a right of access to the Materials. Engineer shall promptly furnish and deliver all such Materials to County on request. Notwithstanding the foregoing, Engineer shall bear no liability or responsibility for Materials that have been modified post-delivery to County or used by County for a purpose other than that for which they were prepared under this Agreement.

18. **Inspection of Books and Records.** Engineer shall permit County, or any duly authorized agent of County, to inspect and examine the books, records, information, and documentation (collectively, "Records") of Engineer which relate to the Services provided under this Agreement for the purposes of making audits, examinations, excerpts, copies, and transcriptions. Engineer shall maintain all such Records in a readily available state and location, reasonably accessible to County or their authorized representatives. County's right to inspect such books and records shall survive the termination of this Agreement for a period of four (4) years, or until any litigation concerning any of the Services has been satisfactorily resolved, whichever occurs later. **ENGINEER SHALL NOT DESTROY OR DISCARD ANY RECORDS REASONABLY RELATED TO THIS AGREEMENT OR THE SERVICES, UNLESS THE TIME PERIOD FOR MAINTAINING THE SAME HAS EXPIRED.**

19. **Termination.**

- (a) Without Cause. County, in its sole discretion, and without prejudice to any other remedy to which it may be entitled to at law or in equity, may terminate this Agreement, in whole or in part, without cause, upon thirty (30) days prior written notice to Engineer.
- (b) With Cause. County, in its sole discretion, and without prejudice to any other remedy to which it may be entitled to at law or in equity, may terminate this Agreement, in whole or in part, with cause, for any of the following reasons, each of which shall constitute a material breach and "Default" of the Agreement:
  - (1) Engineer fails to perform any portion of the Scope of Services within the timeframe(s) provided under this Agreement.
  - (2) Engineer fails to comply with County's documentation and reporting requirements, terms and requirements of this Agreement, or applicable federal, state, or local laws and regulations.
  - (3) Non-performance and suspension of the Agreement by Engineer that exceeds thirty (30) calendar days due to Force Majeure.
  - (4) Engineer fails to perform any obligation under this Agreement or as required by law, ordinance, or regulation and such failure creates an imminent threat to the public health and/or safety.
  - (5) Engineer otherwise materially breaches any of the covenants or terms and conditions set forth in this Agreement or fails to perform any of the other provisions of this Agreement or so fails to make progress as to endanger performance of this Agreement in accordance with its terms.

- (6) County shall notify Engineer in writing of the alleged Default in reasonable detail (“Notice”). Upon receipt of said Notice, Engineer shall have opportunity to cure such Default within the time specified in the Notice by County. If Engineer fails to cure such Default within such time, and to the reasonable satisfaction of County, then County may elect to terminate this Agreement for cause.
  - (7) If, after termination of the Agreement by County for cause, it is determined for any reason whatsoever that Engineer was not in Default, or that the Default was excusable, the rights and obligations of the Parties hereunder shall be the same as if the termination had been issued by County without cause in accordance with this Agreement.
  - (c) Upon termination of this Agreement for any reason, Engineer shall cease all work and activity for the Services by the date specified by County and shall not incur any new obligations or perform any additional services for the work performed hereunder beyond the specified date. County shall compensate Engineer in accordance with Section 4, above, for such work provided by Engineer under this Agreement prior to its termination and which has not been previously presented for payment by Engineer to County.
  - (d) If County terminates this Agreement as provided in this Section, no fees of any type, other than fees due and payable at the termination date, shall thereafter be paid to Engineer.
20. **Force Majeure.** In the event either Party is rendered unable, wholly or in part, by Force Majeure to carry out any of its obligations under this Agreement, then, within a reasonable time after the occurrence of such event, but no later than ten (10) calendar days after, the Party whose obligations are so affected (the “Affected Party”) thereby shall notify the other in writing stating the nature of the event and the anticipated duration. The Affected Party’s obligations under this Agreement shall be suspended during the continuance of any delay or inability caused by the event, but for no longer period. The Affected Party shall further endeavor to remove or overcome such delay or inability as soon as is reasonably possible.

For purposes of this Agreement, Force Majeure includes, but is not limited to: acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, orders of any kind of the government of the United States of America or the State of Texas or any civil or military authority other than a Party to this Agreement, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, hurricanes, severe storms, floods, washouts, drought, arrests, restraint of government and people, civil disturbances, explosions, breakage or accidents to machinery, pipelines or canals, and any other

inabilities of any Party, similar to those enumerated, which are not within the control of the Party claiming such inability, which such Party could not have avoided by the reasonable exercise of due diligence and care.

21. **Assignment.** Engineer shall not assign this Agreement to another party without the prior written consent of County, which consent shall not be unreasonably withheld, conditioned, or delayed. Any purported or attempted assignment or transfer in violation of this Section shall be null and void.
22. **Successors and Assigns Bound.** County and Engineer each bind themselves and their successors and assigns to the other Party and to the successors and assigns of such other Party, with respect to all covenants of this Agreement.
23. **Publicity.** Contact with citizens of Fort Bend County, media outlets, or other governmental agencies shall be the sole responsibility of County. Under no circumstances, whatsoever, shall Engineer release any material or information developed or received during the performance of Services hereunder unless Engineer obtains the express written approval of County or is required to do so by law.
24. **Notice.** Any and all notices required or permitted under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or personally delivered to the following addresses:

**If to County:** Fort Bend County Engineering  
Attn: County Engineer  
301 Jackson Street, 4<sup>th</sup> Floor  
Richmond, Texas 77469

**And**

Fort Bend County, Texas  
Attn: County Judge  
401 Jackson Street, 1<sup>st</sup> Floor  
Richmond, Texas 77469

**If to Engineer:** Entech Civil Engineers, Inc.  
15021 Katy Fwy, Suite 500  
Houston, Texas 77094

Within five (5) business days of the Effective Date of this Agreement, each Party to this Agreement shall designate in writing to the other Party one person and one alternate person to be that Party's designated spokesperson for communications between the Parties.

25. **Standard of Care.** Pursuant to Section 271.904 of the Texas Local Government Code, Engineer represents to County that Engineer has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession (“Professionals”) practicing in the greater Houston metropolitan area. Engineer shall provide the Services to County with the same professional skill and care ordinarily provided by such Professionals under the same or similar circumstances and professional license and as expeditiously as is prudent considering the ordinary professional skill and care of a competent Professional.
26. **Travel Policy.** Mutually approved travel and mileage expenses incurred in the performance of the Services hereunder will be reimbursed to Engineer only to the extent that those costs do not exceed Fort Bend County travel reimbursement allowances. A copy of County’s Travel Policy with those reimbursement limits shall be provided to Engineer upon request.
27. **Arbitration, Litigation Waiver, and Attorney Fees.** County does not agree to submit disputes arising out of this Agreement to binding arbitration nor does County agree to pay any and/or all attorney fees incurred by Engineer in any way associated with this Agreement. Therefore, any references in Engineer’s Proposal to binding arbitration, waiver of a right to litigate a dispute, or payment of attorney fees are hereby deleted.
28. **No Waiver of Jury Trial.** County does not agree that all disputes (including any claims or counterclaims) arising from or related to this Agreement shall be resolved without a jury. Therefore, any references in Engineer’s Proposal to County’s waiver of jury trial are hereby deleted.
29. **Limitations.** Limitations for the right to bring an action, regardless of form, shall be governed by the applicable laws of the State of Texas, and any provisions to the contrary in Engineer’s Proposal are hereby deleted.
30. **Indemnification by County.** ENGINEER UNDERSTANDS AND AGREES THAT UNDER THE TEXAS CONSTITUTION AND THE LAWS OF THE STATE OF TEXAS, COUNTY CANNOT ENTER INTO AN AGREEMENT WHEREBY COUNTY AGREES TO INDEMNIFY OR HOLD HARMLESS ANOTHER PARTY. THEREFORE, ANY AND ALL REFERENCES IN ENGINEER’S PROPOSAL TO COUNTY DEFENDING, INDEMNIFYING, OR HOLDING OR SAVING HARMLESS ENGINEER OR ANY OTHER PARTY, FOR ANY REASON WHATSOEVER, ARE HEREBY DELETED.

31. **Entire Agreement and Modification.** This Agreement constitutes the entire Agreement between the Parties and supersedes all previous agreements, written or oral, pertaining to the subject matter of this Agreement. Any amendment to this Agreement must be in writing and signed by each Party to come into full force and effect. **IT IS ACKNOWLEDGED BY ENGINEER THAT NO OFFICER, AGENT, EMPLOYEE, OR REPRESENTATIVE OF COUNTY HAS ANY AUTHORITY TO CHANGE THE TERMS OF THIS AGREEMENT OR ANY ATTACHED EXHIBITS HERETO UNLESS EXPRESSLY AUTHORIZED BY THE FORT BEND COUNTY COMMISSIONERS COURT.**
32. **Conflict.** In the event there is a conflict among the terms of this document entitled "Agreement for Professional Engineering Services" and the terms of Engineer's Proposal or any other exhibit attached hereto, the terms of this document shall prevail with regard to the conflict.
33. **Understanding Fair Construction.** By execution of this Agreement, the Parties acknowledge that they have read and understood each provision, term, and obligation contained herein. This Agreement, although drawn by one party, shall be construed fairly and reasonably and not more strictly against the drafting Party than the non-drafting Party.
34. **Severability.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.
35. **No Waiver of Immunity.** Neither the execution of this Agreement nor any other conduct of either Party relating to this Agreement shall be considered a waiver or surrender by County of its governmental powers or immunity under the Texas Constitution or the laws of the state of Texas.
36. **Applicable Law and Venue.** This Agreement shall be construed according to the laws of the state of Texas. Venue for any claim arising out of or relating to the subject matter of this Agreement shall lie in a court of competent jurisdiction of Fort Bend County, Texas.
37. **Certain State Law Requirements for Contracts** The contents of this Section are required by Texas law and are included by County regardless of content For purposes of Sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Engineer hereby verifies that Engineer and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:
  - (a) Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization, Engineer is not identified on a


list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.

- (b) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts. "Boycott Israel" has the meaning provided in § 808.001 of the Texas Government Code.
  - (c) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. "Boycott energy company" has the meaning provided in § 809.001 of the Texas Government Code.
  - (d) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. "Discriminate against a firearm entity or firearm trade association" has the meaning provided in § 2274.001(3) of the Texas Government Code. "Firearm entity" and "firearm trade association" have the meanings provided in § 2274.001(6) and (7) of the Texas Government Code.
38. **Human Trafficking.** BY ACCEPTANCE OF THIS AGREEMENT, ENGINEER ACKNOWLEDGES THAT FORT BEND COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.
39. **Captions.** The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of the Agreement.
40. **Electronic and Digital Signatures.** The Parties to this Agreement agree that any electronic and/or digital signatures of the Parties included in this Agreement are intended to authenticate this writing and shall have the same force and effect as the use of manual signatures.
41. **Multiple Counterparts.** This Agreement may be executed in multiple counterparts, each having equal force and effect of an original.

42. **Certification.** By his or her signature below, each signatory individual certifies that he or she is the properly authorized person or officer of the applicable Party hereto and has the requisite authority necessary to execute this Agreement on behalf of such Party, and each Party hereby certifies to the other that it has obtained the appropriate approvals or authorizations from its governing body as required by law.

IN WITNESS WHEREOF, and intending to be legally bound, County and Engineer hereto have executed this Agreement to be effective on the date signed by the last Party hereto.

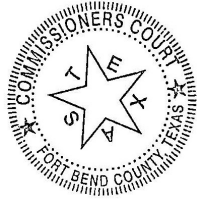
**FORT BEND COUNTY, TEXAS**

  
\_\_\_\_\_  
KP George, County Judge

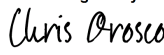
August 12, 2025  
Date

**ATTEST:**

  
\_\_\_\_\_  
Laura Richard, County Clerk



**ENTECH CIVIL ENGINEERS, INC.**

DocuSigned by:  
  
\_\_\_\_\_  
C1F6893E109A9405...  
Authorized Agent – Signature

Chris Orosco  
Authorized Agent- Printed Name

Vice President  
Title


7/28/2025  
Date

**APPROVED:**

  
\_\_\_\_\_  
J. Stacy Slawinski, County Engineer

**AUDITOR'S CERTIFICATE**

I hereby certify that funds in the amount of \$ 1,684,404.78 are available to pay the obligation of Fort Bend County, Texas within the foregoing Agreement.

  
\_\_\_\_\_  
Robert Ed Sturdivant, County Auditor

# EXHIBIT A

(Engineer's Proposal Follows Behind)

May 28, 2025

Mr. Robert McBride, P.E.  
Manager of Precinct 4 Mobility Projects (Fort Bend County)  
LJA Engineering

RE: 23406 Powerline Road (Seg 2): From Highland Meadows Drive to FM 2977

Dear Mr. McBride:

Entech Civil Engineers Inc. (Entech) is pleased to have the opportunity to submit the attached proposal to Fort Bend County for professional engineering services. Enclosed are the following exhibits from the Entech Team to perform Preliminary and Final Designs, Drainage analysis, Geotechnical Services, Survey, SUE services and Traffic Signal Designs:

- Exhibit A – Scope of Services
- Exhibit B – Study and Design Phase Schedules
- Exhibit C – Fee Schedule
- Exhibit C1 – Drainage Services Scope and Fee (sub-consultant)
- Exhibit C2 - Geotechnical Scope and Fee (sub-consultant)
- Exhibit C3 – Survey Scope and Fee (sub-consultant)
- Exhibit C4 - Subsurface Utility Engineering Scope and Fee (sub-consultant)
- Exhibit C5 – Traffic Scope and Fee (sub-consultant)

The following is a breakdown of our anticipated fees for professional engineering services included in the attached proposal:

**Basic Services (Entech – Prime)**

Phase I – Preliminary Design Services (Lump Sum)	\$ 250,733.60
Phase II – Final Design Services (Lump Sum)	\$ 428,283.40
Phase III – Limited Construction Services (Time & Material)	\$ 50,000.00
<b>Total Basic Services (Entech - Prime)</b>	<b>\$ 729,017.00</b>

---

**Additional Services**

Drainage Design (AKV)	\$ 136,226.00
SUE Services (LAN)	\$ 198,873.48
Geotechnical (B2Z)	\$ 46,178.92
Survey (Halff)	\$ 215,360.00

---

Metes and Bounds (Halff) (15@\$5,000 Ea)	\$ 75,000.00
Traffic Signals (BGE)	\$ 126,190.50
<b>Total Additional Services</b>	<b>\$ 797,828.90</b>

---

**Optional Additional Services**

Detention Pond Design (AKV)	\$ 34,824.00
SUE QL B&A	\$ 73,989.00
Geotechnical (B2Z)	\$ 12,837.88
Baseline ROW Staking (Halff)	\$ 18,733.00
Detention Pond Survey (Halff)	\$ 13,175.00
Detention Pond Parcel (Halff)	\$ 4,000.00

<b>Total Additional Services</b>	<b>\$ 157,558.88</b>
----------------------------------	----------------------

---

<b>Total Professional Services</b>	<b>\$1,684,404.78</b>
------------------------------------	-----------------------

Entech Civil Engineers, Inc., is pleased to provide engineering services to Fort Bend County for this project.

Sincerely,

Chris Orosco, P.E.  
Vice-President | Senior Project Manager

Attached: Exhibits

**“EXHIBIT A” - Scope of Services**  
**Powerline Road Segment 2**  
**From Highland Meadows Drive to FM 2977**

Fort Bend County has requested a proposal for preliminary studies, design services, and bid support services to construct a new boulevard roadway with concrete curb and gutter and storm sewers. This project includes two bridges over existing drainage canal and a new ditch culvert and traffic signal at FM 2977. Additional services include detention pond design, survey and geotechnical investigation. if necessary.

**LIMITS**

The Powerline Road project will reconstruct the existing two-lane Powerline Road from Highland Meadows Drive to FM 2977. The project will require additional ROW at the intersection of Ricefield road and FM 2977 to accommodate the proposed improvements and realignment of the intersection. This project is Segment 2 of a two-segment plan for the future expansion of Powerline Road.

**ALIGNMENT**

The Engineer is to consider the existing vertical and horizontal alignments provided by Fort Bend County. The final alignment will be approved by Fort Bend County and stakeholders.

**PROJECT SCOPE**

***STUDY PHASE***

The Study Report shall serve as a summary document that incorporates the recommendations from the supporting investigative reports, working meetings with Fort Bend County, necessary approvals and final recommendations for all agencies including TxDOT and Fort Bend County Drainage District. The document will serve as the framework for the design phase, having addressed the major issues that affect the roadway design and supporting infrastructure.

An outline is attached that identifies those sections that are required for the Study Report, including the exhibits and attachments as identified below. The Study Phase shall include the preparation and approval of reports necessary to support the recommendations and design of the roadway and all appurtenances including, but not limited to, Geotechnical Investigations and Drainage Studies. The preparation of a preliminary a schematic layout will be developed.

The study phase shall include one presentation meeting to Fort Bend County Engineering, prepared by the consultant.

At the Preliminary Engineering Report (PER) meeting, the Consultant shall present the status of the project and go over key items from the draft PER to include, but not limited to, ROW, Alignment, Utilities, Parcels, Site triangles, Construction cost. Consultant shall provide preliminary schematics and exhibits to supports discussions to solicit input from Fort Bend County on decision items.

Any issues identified during the Consultant's work effort to get to this project stage that require decision from Fort Bend County should be presented at this meeting for confirmation prior to finalizing the PER such that approval can be granted upon report submittal.

**Topographic Survey and ROW mapping: (Attached)**

1. Perform cross sections at 100' intervals on all streets to 20' beyond the proposed ROW except in areas where right-of-entry (ROE) is denied, and fences are present.
2. Locate a detention pond up to the edge of paving inward, situated on the north side of Powerline Road, between Sunrise Meadow Drive and Spice Springs Lane.
3. Locate storm drain inlets and obtain depths and sizes of pipes.
4. Locate sanitary sewer manholes and obtain depths and sizes of pipes.
5. Locate above ground visible utilities.
6. Locate existing trees 8-inches diameter and greater within the proposed ROW. The client understands that certain species of trees may be difficult to identify, particularly in winter months, and the client should consider retaining an arborist to confirm the identification of certain trees in critical areas.
7. Locate boundary corners and perform records research to define the existing Right-Of-Way and produce an existing Right-Of-Way map according to TSPS Category 1B, Condition 3 standards.
8. When establishing control for the project, Fort Bend County Survey Monuments will be used to establish project Horizontal and Vertical control.
9. Create control sheets for site control on 11"x17" sheets.
10. Locate utilities as marked by 811 locate services.
11. ROE template will be submitted for approval before sending it to property owners.
12. Per the EDM, Baselines are required to be staked. We propose to stake the Baseline, and ROW, up to three times. Traffic control is not provided for in this contract. If traffic control is deemed necessary, it will be billed as an additional service (see optional traffic control below).
13. Prepare base map illustrating data collected above.
14. Include property ownership and boundary information.
15. Provide a base file in Open Roads Designer format.

Services performed outside the above scope of services will be provided on an hourly basis in accordance with our standard hourly rates. In order to furnish a lump sum fee, the following assumptions were made:

- Vertical datum will be NAVD88(Geoid 18) unless otherwise specified by others prior to the commencement of the project.
- The survey can be performed utilizing a combination of aerial, conventional and GPS (utilizing VRS and RTK means).
- CADD deliverable will be in surface coordinates based on Texas State Plane Coordinate System of 1983 (NAD83/South Central Zone) utilizing a grid to surface scale factor of 1.00013 scaled about 0,0 unless otherwise requested.
- Fees are contingent upon performing Items above, concurrently.
- Sufficient boundary monumentation needed to control the survey is recoverable, and in good condition.
- There are no encroachments, overlaps, gores or other issues affecting the boundary lines.
- Perform research of adequate thoroughness to support the determination of the location of intended boundaries of the land parcel surveyed and will obtain deeds of record for adjoining properties based upon current tax maps.

- Delivery of Parcel Plats are dependent on ROE requests being acknowledged, received, and permission granted. Lack of response, or permission, can have an impact on the production and delivery of parcel plats.

**Surveying for Detention Pond:**

*Survey shall conform to Fort Bend County Requirements*

Services will include: Obtaining Bore-hole locations ( $\pm 5$ ), boundary with metes & bounds, topography, and creation of once parcel for acquisition.

**Geotechnical: (Attached)****Drainage Impact Analysis:**

- Obtain and review existing drainage data.
- Field reconnaissance
- Develop & present options (pre-modeling).
- Account for latest Atlas 14 rainfall data.
- Determine existing overall hydrologic conditions.
- Determine proposed overall hydrologic conditions.
- Existing SWMM Hydraulic Analysis
- Proposed SWMM Hydraulic Analysis
- Determine outfall requirements and downstream impact evaluation.
- Determine detention requirements and provide necessary mitigation.
- Obtain approval from Fort Bend County Drainage District, if required.
- Prepare Drainage Impact Report.
- Meet with Fort Bend County staff and Drainage District staff.

**Exhibits/Attachments** shall include, but not limited to the following:

- Aerial Exhibit

Provide an exhibit that shows the project limits and surrounding features. Identify notable features of interest, including drainage channels, floodplains, pipelines, roadways, future roadway alignments on the latest available aerial photographs, and developments.

- Schematic Layout of Roadway and Detention

Provide a plan view layout with sufficient detail to ensure that the final design can be constructed without any major issues. Include the location of the proposed trunk storm sewer and detention facilities. The schematic layout shall be at a scale of 1" = 40' on 11"x17" sheets. Include a Cover Sheet with a Vicinity Map with the project limits. The schematic should include the pavement marking concept so that traffic movements can be considered and reviewed during the study phase. Provide the proposed typical sections on the schematic. Typical Sections shall be drawn at 1"=20' horizontal and 1"=2' vertical scale on 11"x17" sheets. Identify the location of soil borings.

- Cost Estimates

Provide a preliminary construction cost estimate for the final recommendation provided in the Study Report.

- Utility Tables

The Consultant shall provide a table with all identified utilities along with the contact information. The table shall include ID number for the potential conflicts, stations at the left right-of-way, the centerline, and Right right-of-way, the owner of the utility, contact name, address, phone number, email address and any notes such as no conflict, potential conflict and/or relocation resolution.

The consultant shall coordinate with utility companies that have existing facilities in or adjacent to the project limits. The coordination shall include:

1. Identify utilities that will potentially require relocation. Major utilities are defined pipelines, concrete incased conduits, or other utilities of this nature. Overhead power lines, small gas service lines and other lines of this nature are not identified as major conflicts but will be identified in the utility table.
2. Identify any utilities that are within dedicated easements that will be within the proposed right-of-way. These are utilities identified and potential conflicts and will need to be designed around when possible.

- Sight Distance Evaluation

The consultant shall investigate sight distance restrictions and general operating conditions of all existing and proposed intersections within the project limits. Prepared exhibits which include the ROW and parcel lines, proposed layout of paving, features on private property that affect the sight distance and square footage of takings that would be required.

**Table of Deliverables for Study Phase:****PER Submittal to include at a minimum:**

- A. Project location and scope of the project
- B. Existing Conditions
- C. Existing Utilities, including potential conflicts
- D. Proposed Roadway Design, highlighting any deviation from applicable design criteria
- E. Existing and Proposed Drainage and Detention
- F. Proposed Right-of-Way
- G. Proposed Traffic Signal, if applicable
- H. Geotechnical Investigation
- I. Environmental Investigation (letter report to be provided to Design Consultant by the County)
- J. Permit and Regulatory Requirements
- K. Cost Estimate
- L. Appendices
  - 1. PER review meeting minutes
  - 2. Project Location Map
  - 3. Alignment Exhibit showing ultimate configuration
  - 4. Roundabout Exhibit, if applicable
  - 5. FEMA Flood Insurance Rate Maps (FIRM)
  - 6. Preliminary Drainage Area Map and calculations taking into account the ultimate roadway configuration
  - 7. Sight Triangle Exhibit
  - 8. Right-of-Way Exhibit
  - 9. New Parcel Exhibit locations, if applicable
  - 10. Cost Estimate
  - 11. Utilities
    - a. Utility Conflict Table. CenterPoint and AT&T ID numbers are to be included in the table. See Appendix B for Fort Bend County Utility Conflict Table.
    - b. Include any correspondence with utility companies (AT&T, CenterPoint, pipelines, etc.) that contain pertinent information.

12. Thirty (30) percent drawing submittal, to include:
- a. Typical sections
  - b. Plan and profile sheets shall consist of all existing features (seen and unseen) shown in plan and profile, as well as proposed improvements in plan only with minor annotation.
  - c. Traffic control plan (preliminary phasing and detour needs)
  - d. Bridge layout, if applicable
13. Reports to be included are:
- a. Drainage Study taking into account the ultimate roadway configuration
  - b. Geotechnical Report
  - c. Environmental Report (provided by Fort Bend County)
  - d. Signal Warrant Analysis, if applicable

***End of Study Phase Section***

### ***DESIGN PHASE***

The design phase of the project shall consist of the preparation of complete construction documents that reflect the approved Study Report, (Plans, Specifications & Estimate (PS&E)). The final design shall be in accordance with the latest Fort Bend County Engineering Design Manual.

The Design shall build upon the framework identified in the Study Report and include roadway design, profiles, drainage system and appurtenances, details and the bid documents necessary for a complete design. The construction document PS&E submittal shall be considered final and ready for construction, barring minor comments from Fort Bend County.

Provide a list of traffic control standards to be used at the ends of the project.

The Design Submittal (PS&E) shall address all comments from the study phase of the project and the construction review meeting. The Design Submittal (PS&E) shall include the submittal of the construction ready plans on 11"x17", the project manual, and a final cost estimate.

The design phase shall also include, but is not limited to the following:

1. The coordination of utilities. The coordination shall include, but not be limited to:
  - a) Meet with the utility companies and provide information and plans as necessary.
  - b) Provide any documentation as necessary and assist Fort Bend County in entering into an agreement with the utility companies for the relocation of the facility.
2. Design of proposed improvements shall be in accordance with the Fort Bend County guidelines.
3. The pavement elevation shall be set in accordance with the Fort Bend County Guidelines.
4. Culvert at existing drainage canal to be redesigned.
5. The pavement section shall be designed in accordance with the Guidelines. The results of the coring tests will be utilized to verify that the existing concrete pavement meets the Fort Bend County guidelines.
6. Update cost estimates and utility conflict matrix for each submittal (70%, 95% and 100%).
7. The Prime engineer will provide internal QA/QC sets of comments with each submittal.

**Table of Deliverables for Design Phase:****70% Submittal**

A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager.

A. The 70 percent submittal shall include the following with an internal QA/QC set of comments:

1. Cover Sheet with a 70 percent interim seal
2. Index of Sheet
3. General Notes
4. Typical and Non-standard Cross Sections
5. Project Layout Sheet
6. Survey Control
7. Right-of-way (Existing and Proposed)
8. Horizontal Alignment Data
9. Plan and Profile Sheets (detailed callouts not required at 70 percent)
10. Bridge Layout and Details (if applicable)
11. Culvert Layout (Bridge Class if applicable)
12. Drainage Area Map with Hydraulic Calculations
13. Traffic Control Plan
14. Signing and Striping Plan
15. Traffic Signal and Details (if applicable)
16. Storm Water Pollution Prevention Plan
17. Cross Sections (100 foot intervals with earthwork calculations)
18. Specification Table of Contents (Use Fort Bend County Specifications, TxDOT Specifications and others to be used as necessary depending on jurisdiction). Refer to Appendix B for Fort Bend County Specification Table of Contents template.
19. Construction Cost Estimate (PDF and Excel format)
20. Bid Form (PDF and Excel format). Ensure that bid items and units match those shown in the applicable specification. Refer to Appendix B for Fort Bend County Bid template.
21. KMZ file of current design with proposed right-of-way.
22. 70 Percent Review Checklist.

**95% Submittal**

A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager.

- A. The 95 percent submittal should be considered complete with
- 95 percent interim seal
  - An internal QA/QC set of comments
- B. The 95 percent submittal shall include all the 70 percent requirements plus the following:
1. Responses to 70% Comments
  2. Verify earthwork quantities with cross sections at 100-foot intervals.
  3. Standard construction details.
  4. Project manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
  5. KMZ file of current design with proposed right-of-way.
  6. Responses to 70 percent comments
  7. 95 Percent Review Checklist.

**100% Submittal**

A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager.

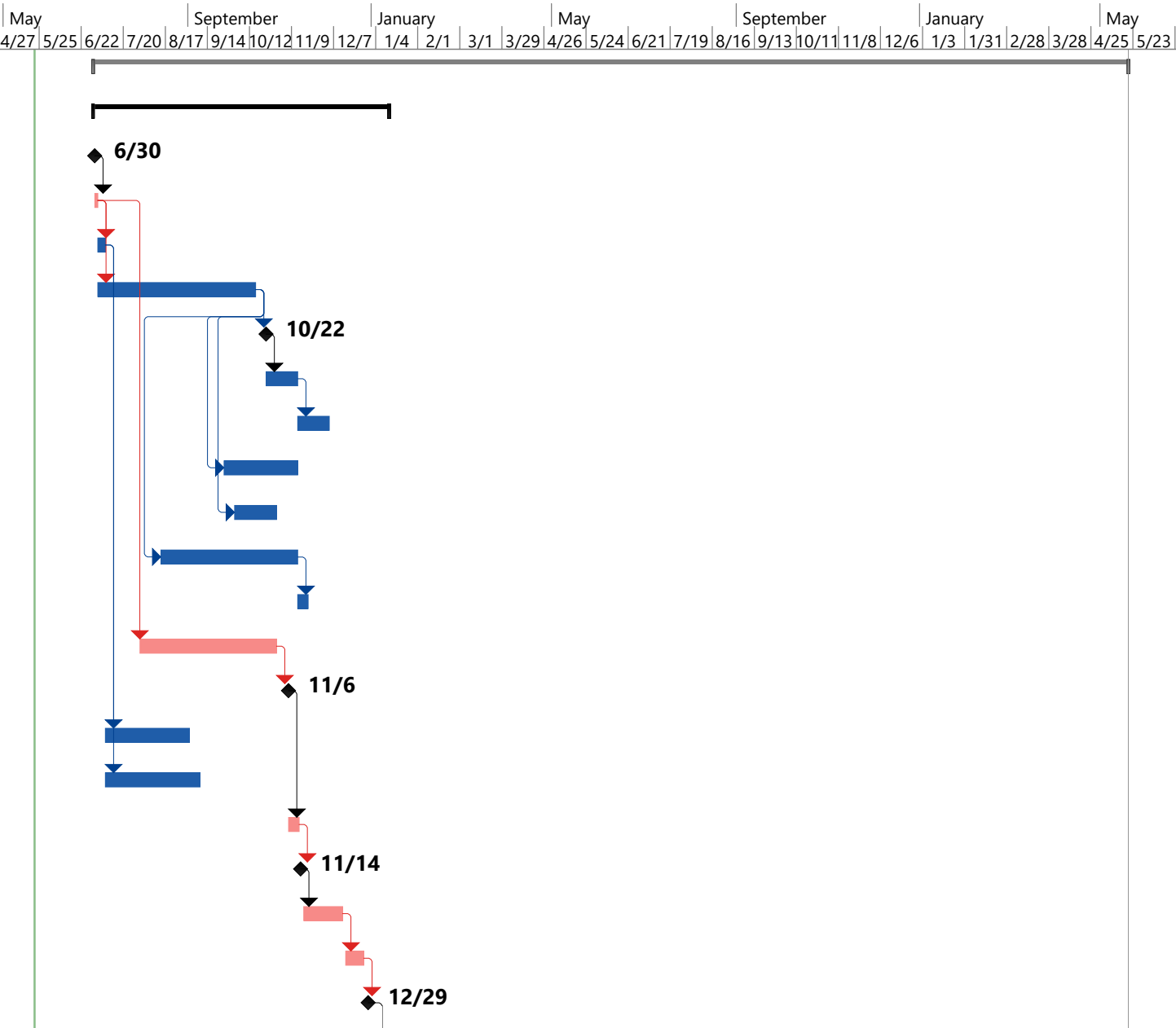
- A. The 100 percent submittal should be considered complete with
- Signed and Sealed Documents
  - An internal QA/QC set of comments
- B. The 100 percent submittal shall include all the 95 percent requirements plus the following:
1. Project manual
  2. Construction cost estimate
  3. KMZ file of current design with proposed right-of-way.
  4. Responses to 95 percent comments.
  5. Recommended maximum number of calendar days for construction.
  6. 100 Percent Review Checklist

Exhibit B - Design Schedule

PO No.

Powerline Road - Seg. 2 From Highland Meadows Dr to FM 2977

ID	Task Mod	Task Name	Duration	Start	Finish
0		<b>Powerline Road Seg 2: Pct 4</b>	<b>493 days</b>	<b>Mon 6/30/25</b>	<b>Wed 5/19/27</b>
1		<b>Study Phase</b>	<b>141 days</b>	<b>Mon 6/30/25</b>	<b>Mon 1/12/26</b>
2		Notice to Proceed	1 day	Mon 6/30/25	Mon 6/30/25
3		Project Coordination and Meetings	2 days	Tue 7/1/25	Wed 7/2/25
4		Review Right-of-Way Maps (Cat 1B, Cond II)	3 days	Thu 7/3/25	Mon 7/7/25
5		Topographic Survey (Cat 6, Cond. I)	75 days	Thu 7/3/25	Wed 10/15/25
6		Topo Field Meeting	1 day	Wed 10/22/25	Wed 10/22/25
7		Survey Control Sheets	15 days	Thu 10/23/25	Wed 11/12/25
8		Right-of-Way Exhibits	15 days	Thu 11/13/25	Wed 12/3/25
9		Utility Coordination	35 days	Thu 9/25/25	Wed 11/12/25
10		Traffic Signal Warrant Analysis	20 days	Thu 10/2/25	Wed 10/29/25
11		Prepare 30% design plans	65 days	Thu 8/14/25	Wed 11/12/25
12		Prepare Cost Estimate	5 days	Thu 11/13/25	Wed 11/19/25
13		Draft Drainage Report	65 days	Thu 7/31/25	Wed 10/29/25
14		Drainage Meeting w/ HCED	1 day	Thu 11/6/25	Thu 11/6/25
15		Geotechnical Investigations	40 days	Tue 7/8/25	Mon 9/1/25
16		SUE QL-D	45 days	Tue 7/8/25	Mon 9/8/25
17		Prepare Preliminary Engineering Report	5 days	Fri 11/7/25	Thu 11/13/25
18		Submit Draft PER	1 day	Fri 11/14/25	Fri 11/14/25
19		FBC/FBCDD Review	20 days	Mon 11/17/25	Fri 12/12/25
20		Incorporate PER Comments	10 days	Mon 12/15/25	Fri 12/26/25
21		FBC PER Presentation	1 day	Mon 12/29/25	Mon 12/29/25

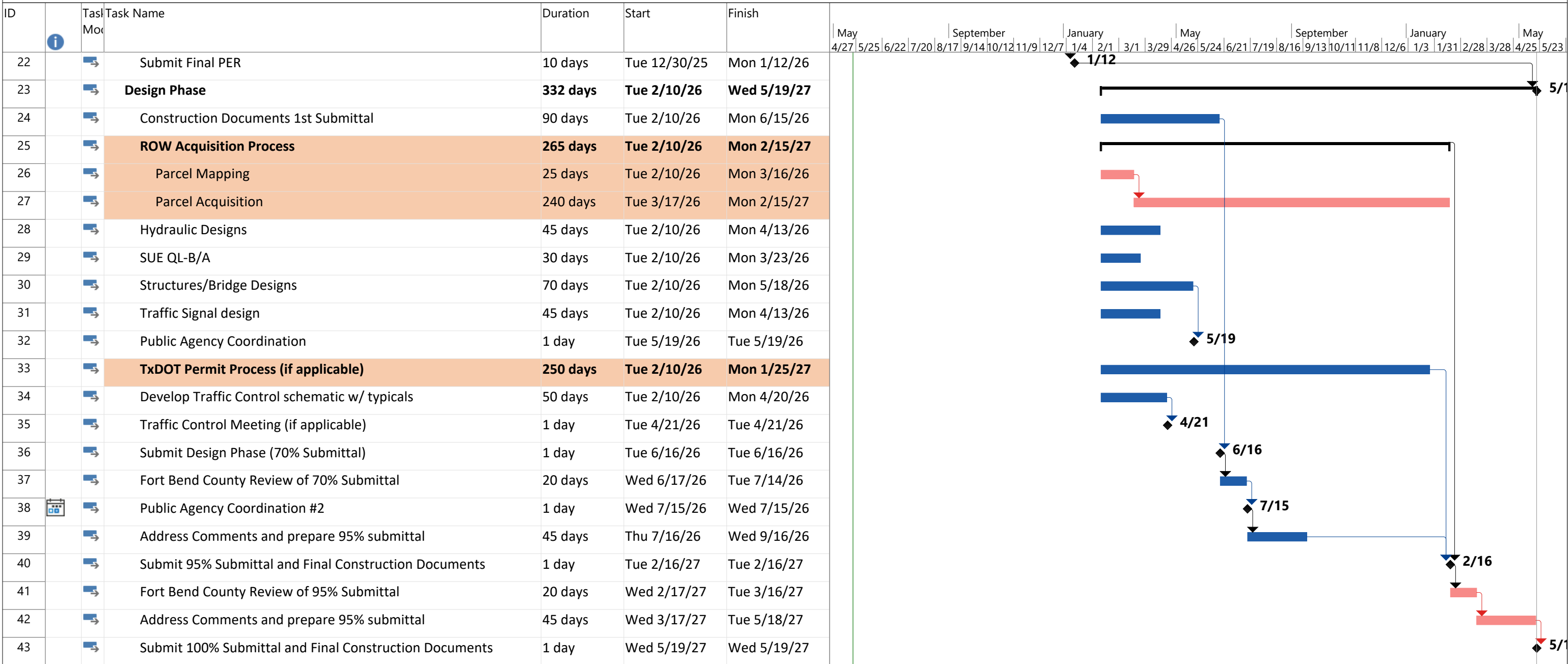


Project: Powerline Road Seg 2: Pct 4 Date: Thu 5/22/25	Task		Inactive Task		Manual Summary Rollup		External Milestone		Manual Progress	
	Split		Inactive Milestone		Manual Summary		Deadline			
	Milestone		Inactive Summary		Start-only		Critical			
	Summary		Manual Task		Finish-only		Critical Split			
	Project Summary		Duration-only		External Tasks		Progress			

Exhibit B - Design Schedule

PO No.

Powerline Road - Seg. 2 From Highland Meadows Dr to FM 2977



Project: Powerline Road Seg 2: Pct 4  
Date: Thu 5/22/25

Task		Inactive Task		Manual Summary Rollup		External Milestone		Manual Progress	
Split		Inactive Milestone		Manual Summary		Deadline			
Milestone		Inactive Summary		Start-only		Critical			
Summary		Manual Task		Finish-only		Critical Split			
Project Summary		Duration-only		External Tasks		Progress			

**ENTECH**  
CIVIL ENGINEERS, INC F-6932  
15021 Katy Freeway, Ste. 500  
Houston TX 77094

EXHIBIT "B"

Prj #0029-24-002

**EXHIBIT C - Compensation for Professional Services**  
**Fort Bend County Engineering Department**  
**Project Name/Limits: Powerline Road Seg. 2 From Highland Meadows to FM 2977**  
**Precinct 4, Project #**  
**Construction Cost Estimate: \$11,758,000**

<b>Phase I - Preliminary Design Services (Lump Sum)</b>		\$ 250,733.60
<b>Phase II - Final Design Services (Lump Sum)</b>		\$ 428,283.40
<b>Phase II - Limited Construction Phase Services (Time &amp; Materials)</b>		\$ 50,000.00
<b>Engineering Services Support (AKV)</b>		
Engineering Services (Drainage Design)	\$ 136,226.00	
		\$ 136,226.00
<b>SUE (LAN)</b>		
Utility Adjustment Coordination	\$ 63,825.52	
Utility Engineering	\$ 29,681.56	
Utility Engineering Investigation	\$ 8,298.08	
Subsurface Utility Engineering (SUE)	\$ 66,850.00	
Project Management and Administration	\$ 12,638.32	
Other Direct Expenses	\$ 17,580.00	
		\$ 198,873.48
<b>Geotechnical (B2Z)</b>		
Geotechnical Borings, Investigation, and Geotechnical Report	\$ 46,178.92	
		\$ 46,178.92
<b>Survey (Half)</b>		
Boundary Survey (Cat 1B Condition III)	\$ 75,724.00	
Topographic Survey (Cat. 6 Condition II)	\$ 106,414.00	
Right of Entry	\$ 24,222.00	
Traffic Control (\$1,800/Day @ 5 Days)	\$ 9,000.00	
Individual Parcel Map (15 @ \$5,000 Ea)	\$ 75,000.00	
		\$ 290,360.00
<b>Traffic (BGE)</b>		
Traffic Signal Warrant Study	\$ 21,210.00	
Traffic Signal Design	\$ 85,835.00	
Direct Expenses	\$ 955.50	
Contract Administration	\$ 18,190.00	
		\$ 126,190.50
<b>Subtotal Basic Services</b>		<b>\$ 1,526,845.90</b>
<b>Optional Additional Services including, but not limited to:</b>		
Baseline & Right-of-Way Staking (3 times)	\$ 18,733.00	
Detention Pond Boundary Survey	\$ 6,350.00	
Detention Pond Topographic Survey	\$ 5,360.00	
Obtain Detention Pond Bore Holes locations	\$ 1,465.00	
Detention Pond Parcel Plat	\$ 4,000.00	
Detention Pond Design and Mitigation	\$ 34,824.00	
Detention Pond Geotechnical Investigation	\$ 12,837.88	
SUE QL-B Investigation (15 locations, 50')	\$ 49,701.00	
SUE QL-A Investigation (15 locations, 5'-10' deep)	\$ 24,288.00	
<b>Subtotal Optional Additional Services</b>		<b>\$ 157,558.88</b>
<b>TOTAL SERVICES (BASIC &amp; OPTIONAL ADDITIONAL)</b>		<b>\$ 1,684,404.78</b>

Project Name	Powerline Road Seg. 2 From Highland Meadows to FM 2977
Consultant	ENTECH CIVIL ENGINEERS, INC.
Unique Project Number (UPIN)	
Date	2025-05-28

**BASIC SERVICES**

TASK DESCRIPTION	Project Manager	Senior Engineer	Project Engineer	Engineering In Training (EIT)	Sr Engineering Tech	Admin/Clerical	TOTAL LABOR HRS. & COSTS	Hours / Month (14)	LABOR HRS PER SHEET
<b>A. Project Management</b>									
<b>1. Project Coordination</b>									
Sub-Consultants	48	24	24		20	16	132	9	14
MUDS and other entities/landowners	16	8	8			2	34	2	14
TxDOT Permits	8	20	12			4	44	3	14
Fort Bend County Drainage District	10	4				2	16	1	14
Public Utilities (waterline/sanitary sewer)	6	6	2				14	1	14
ROE letters/approval	6	6	4			4	20	1	14
2. Bi-weekly Meetings	18	6	12			2	38	3	14
3. Monthly Progress Reports	12	6	6			8	32	2	14
4. Project Schedule (Develop and update)	8	8	8				24	2	14
<b>SUBTOTAL PROJECT MANAGEMENT</b>	<b>132</b>	<b>88</b>	<b>76</b>	<b>0</b>	<b>20</b>	<b>38</b>	<b>354</b>		
HOURS SUB-TOTALS	132	88	76	0	20	38	354		
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$ 335.00	\$ 234.00	\$ 195.00	\$ 120.00	\$ 160.00	\$ 93.00			
TOTAL LABOR COSTS	\$ 44,220.00	\$ 20,592.00	\$ 14,820.00	\$ -	\$ 3,200.00	\$ 3,534.00	\$ 86,366.00		
% DISTRIBUTION OF STAFFING	19.78%	9.21%	6.63%	0.00%	1.43%	1.58%	39%		

Project Management	\$ 86,366.00
--------------------	--------------

TASK DESCRIPTION	Project Manager	Senior Engineer	Project Engineer	Engineering In Training (EIT)	Sr Engineering Tech	Admin/Clerical	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
<b>PRE-DESIGN (STUDY) PHASE</b>									
<b>Roadway Study</b>									
REVIEW EXISTING WATER, STORM & SANITARY UTILITIES PLANS	1	4	4	8	6		23		N/A
REVIEW TOPOGRAPHIC SURVEY ROW, EASEMENT, ROADWAY, UTILITIES		8	8		4		20		N/A
EXISTING UTILITIES LAYOUTS		8	8		12		28		N/A
ROADWAY ALIGNMENTS		8	24	8	24		64		N/A
ROADWAY SCHEMATIC	4	4	8	8	32		56	1	56.0
PLAN & PROFILE SHEETS (30%) (13 SHTS @ 1"=20')	4	12	20	32	48		116	13	8.9
TYPICAL SECTIONS		1	8	8	16		33	3	11.0
EARTHWORK CROSS SECTIONS	4	8	40	16	32		100	10	10.0
TRAFFIC CONTROL PLAN (CONCEPT)	2	12	24	16	32		86	8	10.8
TRAFFIC CONTROL PLAN DETOURS	2	16	16	8	24		66	6	11.0
PROPOSED STORM SEWER LAYOUT		2	6	16	24		48	13	3.7
QUANTITIES/COST ESTIMATE		4	8	16	16		44	4	11.0
REVIEW REPORT DOCUMENTS	8	12	16		12		48	5	9.6
INCORPORATE REPORT, EXHIBITS, ESTIMATES AND PLANS INTO REPORT	6	8	32	16	32	12	106	6	17.7
<b>Utility Contact List and Preliminary Utility Conflict Table</b>									
Assist with coordination (Public and Private utility companies)	2	12	6	6			26		N/A
Generation of QL-C&D SUE file / Record requests / Utility research		28	24	54			106		N/A
Provide plans to utility companies for review/signatures	2	4	2	6			14		N/A
Identify ROW needs	2	6	6	4			18		N/A
Identify Utility Conflicts	2	12	6	12			32		N/A
Review, Update and Maintain Utility Conflict Table for Submittals		12	2	10			24		N/A
Coordinate with MUD's and other agencies	8	12	2				22		N/A
Utility Coordination Meetings	8	12	2	12			34		N/A
Review utility relocation plans, schedules and cost estimates	4	8	6	10			28		N/A

<b>Project Name</b>	Powerline Road Seg. 2 From Highland Meadows to FM 2977
<b>Consultant</b>	ENTECH CIVIL ENGINEERS, INC.
<b>Unique Project Number (UPIN)</b>	
<b>Date</b>	2025-05-28

<b>Study Report</b>									
PER Meeting (Preperation and attendance)	10	4	4	2	6	12	38		N/A
Response to comments from PER Meeting	6	4	4		4	2	20		N/A
Document and Summarize All Project Findings into Study Report & Incorporation of Feedback	2	2			2	2	8		N/A
<b>Deliverables:</b>									
Study Report (Signed and Sealed)	4	4	2			2	12		N/A
<b>SUBTOTAL PRE-DESIGN (STUDY) PHASE</b>	<b>81</b>	<b>227</b>	<b>288</b>	<b>268</b>	<b>326</b>	<b>30</b>	<b>1220</b>		
<b>HOURS SUB-TOTALS</b>	<b>81</b>	<b>227</b>	<b>288</b>	<b>268</b>	<b>326</b>	<b>30</b>	<b>1220</b>		
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$ 335.00	\$ 234.00	\$ 195.00	\$ 120.00	\$ 160.00	\$ 93.00			
<b>TOTAL LABOR COSTS</b>	<b>\$ 27,135.00</b>	<b>\$ 53,118.00</b>	<b>\$ 56,160.00</b>	<b>\$ 32,160.00</b>	<b>\$ 52,160.00</b>	<b>\$ 2,790.00</b>	<b>\$ 223,523.00</b>		
% DISTRIBUTION OF STAFFING	12.14%	23.76%	25.12%	14.39%	23.34%	1.25%	100%		

<b>Study Phase - Basic Services</b>	<b>\$ 223,523.00</b>
-------------------------------------	----------------------

TASK DESCRIPTION	Project Manager	Senior Engineer	Project Engineer	Engineering In Training (EIT)	Sr Engineering Tech	Admin/Clerical	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
<b>ROADWAY DESIGN PHASE</b>									
<b>Plan Sheets</b>									
COVER SHEET		1	2		4		7	1	7.0
INDEX SHEET			4				4	1	4.0
PROJECT LAYOUT SHEET			2		8		10	2	5.0
GENERAL NOTES SHEET(S)	1	2	4		2		9	1	9.0
PROPOSED AND EXISTING TYPICAL SECTIONS		2	4		6		12	3	4.0
PLAN & PROFILE SHEETS	8	32	48	64	84		236	13	18.2
CROSS SECTION SHEETS	4	8	24	12	40		88	21	4.2
EARTHWORK CALCULATIONS		8	8	16	24		56	3	18.7
TRAFFIC CONTROL PLANS	4	16	48	32	64		164	10	16.4
TRAFFIC CONTROL PLAN (DETOURS)	4	8	32	16	24		84	6	14.0
SW3P		2	4	4	12		22	2	11.0
UPDATE QUANTITIES / COST ESTIMATE (70%,95%, 100%)	4	12	4	24	24		68	3	22.7
<b>Utility Contact List and Preliminary Utility Conflict Table</b>									
Assist with coordination (Public and Private utiity companies)	4	28	16	16			64		N/A
QL-A&B SUE Recommendations / Review of QL-A&B SUE investigation		10	8	24			42		N/A
Provide plans to utility companies for review/signatures	2	10	4	16			32		N/A
Identify ROW needs	2	16	10	10			38		N/A
Identify Utility Conflicts	2	20	16	24			62		N/A
Review, Update and Maintain Utility Conflict Table for Submittals		28	4	20			52		N/A
Coordinate with MUD's and other agencies	12	28	4				44		N/A
Utility Coordination Meetings	12	28	6	32			78		N/A
Review utility relocation plans, schedules and cost estimates	8	20	14	20			62		N/A

<b>Project Name</b>	Powerline Road Seg. 2 From Highland Meadows to FM 2977
<b>Consultant</b>	ENTECH CIVIL ENGINEERS, INC.
<b>Unique Project Number (UPIN)</b>	
<b>Date</b>	2025-05-28

<b>Details</b>									
ROADWAY DETAILS		4	12	4	24		44	2	22
TCP DETAILS		4	8	8	12		32	4	8
DRAINAGE DETAILS		4	16	2	20		42	2	21
EXCAVATION, BEDDING, BACKFILL & PAVEMENT REPAIR DETAILS		1	2	2	2		7	1	7
SAFETY END TREATMENT DETAILS		2	2	2	8		14	1	14
SW3P DETAILS		2	2	2	8		14	2	7
STANDARD PAVEMENT MARKING DETAILS		2	2	2	8		14	2	7
<b>SUBTOTAL PLANS</b>	<b>67</b>	<b>298</b>	<b>310</b>	<b>352</b>	<b>374</b>	<b>0</b>	<b>1401</b>		
<b>Specifications</b>									
<b>SUBTOTAL SPECIFICATIONS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	N/A	#VALUE!
<b>Utility Signatures &amp; Agency Approvals</b>									
<b>SUBTOTAL SPECIFICATIONS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	N/A	#VALUE!
HOURS SUB-TOTALS	67	298	310	352	374	0	1401		
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$ 335.00	\$ 234.00	\$ 195.00	\$ 120.00	\$ 160.00	\$ 93.00			
TOTAL LABOR COSTS	\$ 22,445.00	\$ 69,732.00	\$ 60,450.00	\$ 42,240.00	\$ 59,840.00	\$ -	\$ 254,707.00		
% DISTRIBUTION OF STAFFING	8.81%	27.38%	23.73%	16.58%	23.49%	0.00%	100%		

<b>ROADWAY SUBTOTAL</b>	<b>\$ 254,707.00</b>
-------------------------	----------------------

TASK DESCRIPTION	Project Manager	Senior Engineer	Project Engineer	Engineering In Training (EIT)	Sr Engineering Tech	Admin/Clerical	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
<b>TRAFFIC</b>									
<b>DESIGN PHASE</b>									
<b>SIGNING AND PEVEMENT MARKINGS (SPM)</b>									
SPM SUMMARY OF QUANTITIES	1	2	4	8	12		27		N/A
SPM SMALL SIGN SUMMARY	1	2	4	8	16		31		N/A
SPM PLAN LAYOUTS (1"=100')	4	8	24	40	120		196		N/A
SPM SIGN DETAILS	1	1	2	8	16		28		N/A
PROPOSED SPM REVISIONS (70%, 95%, 100%)	4	4	8	8	24		48		N/A
HOURS SUB-TOTALS	11	17	42	72	188	0	330		
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$ 335.00	\$ 234.00	\$ 195.00	\$ 120.00	\$ 160.00	\$ 93.00			
TOTAL LABOR COSTS	\$ 3,685.00	\$ 3,978.00	\$ 8,190.00	\$ 8,640.00	\$ 30,080.00	\$ -	\$ 54,573.00		
% DISTRIBUTION OF STAFFING	6.75%	7.29%	15.01%	15.83%	55.12%	0.00%	100%		

<b>TRAFFIC SUBTOTAL</b>	<b>\$ 54,573.00</b>
-------------------------	---------------------

<b>Project Name</b>	Powerline Road Seg. 2 From Highland Meadows to FM 2977
<b>Consultant</b>	ENTECH CIVIL ENGINEERS, INC.
<b>Unique Project Number (UPIN)</b>	
<b>Date</b>	2025-05-28

TASK DESCRIPTION	Project Manager	Senior Engineer	Project Engineer	Engineering In Training (EIT)	Sr Engineering Tech	Admin/Clerical	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
<b>BRIDGE (STRUCTURAL)</b>									
<b>DESIGN PHASE</b>									
<b>Drainage Ditch Culvert west of Whitewing Dr</b>									
Bridge Class Culvert layout	4	24	4	16	40		88		N/A
Bridge Class Culvert quantities		6	4	20	12		42		N/A
Wingwall Design	2	6	4	8	24		44		N/A
Culvert Details	2	4	8	16	24		54		N/A
<b>HOURS SUB-TOTALS</b>	<b>8</b>	<b>40</b>	<b>20</b>	<b>60</b>	<b>100</b>	<b>0</b>	<b>228</b>		
<b>CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)</b>	<b>\$ 335.00</b>	<b>\$ 234.00</b>	<b>\$ 195.00</b>	<b>\$ 120.00</b>	<b>\$ 160.00</b>	<b>\$ 93.00</b>			
<b>TOTAL LABOR COSTS</b>	<b>\$ 2,680.00</b>	<b>\$ 9,360.00</b>	<b>\$ 3,900.00</b>	<b>\$ 7,200.00</b>	<b>\$ 16,000.00</b>	<b>\$ -</b>	<b>\$ 39,140.00</b>		
<b>% DISTRIBUTION OF STAFFING</b>	<b>6.85%</b>	<b>23.91%</b>	<b>9.96%</b>	<b>18.40%</b>	<b>40.88%</b>	<b>0.00%</b>	<b>100%</b>		

<b>BRIDGE (STRUCTURAL) SUBTOTAL</b>	<b>\$ 39,140.00</b>
-------------------------------------	---------------------

TASK DESCRIPTION	Project Manager	Senior Engineer	Project Engineer	Engineering In Training (EIT)	Sr Engineering Tech	Admin/Clerical	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
<b>BID PHASE</b>									
Pre-Bid Conference	4	4					8		N/A
Answer Bidder Questions	4	8	10				22		N/A
Issue Addenda	4	8	8			2	22		N/A
Bid Review and Award Recommendation	2	10	4			2	18		N/A
<b>HOURS SUB-TOTALS</b>	<b>14</b>	<b>30</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>70</b>		
<b>CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)</b>	<b>\$ 335.00</b>	<b>\$ 234.00</b>	<b>\$ 195.00</b>	<b>\$ 120.00</b>	<b>\$ 160.00</b>	<b>\$ 93.00</b>			
<b>TOTAL LABOR COSTS</b>	<b>\$ 4,690.00</b>	<b>\$ 7,020.00</b>	<b>\$ 4,290.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 372.00</b>	<b>\$ 16,372.00</b>		
<b>% DISTRIBUTION OF STAFFING</b>	<b>28.65%</b>	<b>42.88%</b>	<b>26.20%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>2.27%</b>	<b>100%</b>		

<b>BID PHASE</b>	<b>\$ 16,372.00</b>
------------------	---------------------

<b>Project Name</b>	Powerline Road Seg. 2 From Highland Meadows to FM 2977
<b>Consultant</b>	ENTECH CIVIL ENGINEERS, INC.
<b>Unique Project Number (UPIN)</b>	
<b>Date</b>	2025-05-28

OTHER DIRECT EXPENSES	QTY	UNIT	RATE	COST
Mileage (Current IRS Approved Rate)	1	LS		\$ 350.00
Photo Copies 8.5" X11"	1500	sheet	\$ 0.10	\$ 150.00
Photo Copies 11"X17"	2500	sheet	\$ 0.20	\$ 500.00
Courier Services	4	each	\$ 24.00	\$ 96.00
24-Hour Video System Classification Counts - Minor Intersection	1	each	\$ 1,200.00	\$ 1,200.00
2-Hour TMCs	4	each	\$ 250.00	\$ 1,000.00
24-Hour Automated Tube Countrs	4	each	\$ 260.00	\$ 1,040.00
				\$ -

<b>ODE SUBTOTAL</b>	<b>\$ 4,336.00</b>
---------------------	--------------------

PRIME SUMMARY	
Phase I - Preliminary Design Services (Lump Sum)	\$ 250,733.60
Phase II - Final Design Services (Lump Sum)	\$ 428,283.40
Phase II - Limited Construction Phase Services (Time & Materials)	\$ 50,000.00
<b>TOTAL</b>	<b>\$ 729,017.00</b>

May 22, 2025

Mr. Chris Orosco, PE  
Entech Civil Engineers  
15021 Katy Freeway, Suite 500  
Houston, Texas 77094

**Re: Proposal for Powerline Road – Mobility Bond 2023**

Dear Mr. Orosco:

AKV Consulting Engineers (“AKV” or “Consultant”) is pleased to submit this letter agreement (“Proposal”) to ENTECH (“Client”) for providing professional services. Our project understanding, scope of services, and fee are below.

### **PROJECT UNDERSTANDING**

Based on the information provided by the Client and preliminary information gathered on the provided exhibit, we assume the following to be true:

- Project limits: Highland Meadows Drive to FM 2977.
- 8,000 LF of reconstruction from 2-lane asphalt to a 4-lane concrete boulevard with stormdrain.
- Detention will be satisfied either by adjacent detention ponds (community or school) or using stormdrain as detention.
- Project will tie-in to Poweline Road segment 1 on the west side.
- Existing power line post will need to be avoided due to high cost of replacing them.



TASK DESCRIPTION	PROJECT MANAGER	QUALITY MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER- IN- TRAINING II	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS
<b>I. Drainage</b>										
<b>1. Data Collection</b>										
Field visit	4		4	4						12
Review available as builts for stom sewer section				4	16	8				28
Collect GIS data, plans, etc			2	4		8				14
Review survey data and coordinate with surveyor for add'l			2	4						6
										0
<b>2. Storm Drains</b>										0
Inlet and storm sewer pipe design		8	10	60		160				238
Identify and mitigate utility conflicts		2		12		12				26
										0
<b>3. Plans, Specifications and Estimates (PS&amp;E)</b>										0
Development for Hydraulics	1					6	1			8
Hydrologic Data Sheets		1	1	4		16	8			30
Hydraulic Data Sheets (Storm Sewers)			6	4	8	32	8	32		84
Storm Drain Plan/Profile Sheets			2	8	30	32	4	24		100
Ditch Profiles		1	8	2	6		32	16		65
Prepare Drainage Area Maps		4	2			8		2		16
Prepare drainage summaries			4				8			12
Identify potential utility conflicts			2	1		20	4	12		39
Culvert Layout Sheets				4	8	4	8			24
Drainage Standards				4	4	12	24	6		50
Drainage Details			8	12	8	16				44
Drainage quantity summaries		1	1	1	8					11
Drainage Report	1	1			20	48				70
										0
<b>HOURS SUB-TOTALS</b>	<b>6</b>	<b>18</b>	<b>46</b>	<b>128</b>	<b>108</b>	<b>382</b>	<b>97</b>	<b>92</b>	<b>0</b>	<b>877</b>
LOADED HOURLY RATE	\$300.00	\$240.00	\$240.00	\$187.00	\$170.00	\$140.00	\$150.00	\$95.00	\$78.00	
<b>SUBTOTAL LABOR (FC 160 (163))</b>	<b>\$1,800.00</b>	<b>\$4,320.00</b>	<b>\$11,040.00</b>	<b>\$23,936.00</b>	<b>\$18,360.00</b>	<b>\$53,480.00</b>	<b>\$14,550.00</b>	<b>\$8,740.00</b>	<b>\$0.00</b>	<b>\$136,226.00</b>
TASK DESCRIPTION	PROJECT MANAGER	QUALITY MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER- IN- TRAINING II	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL

TASK DESCRIPTION	PROJECT MANAGER	QUALITY MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER- IN- TRAINING II	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS
<b>II. Drainage - Optional Additional</b>										
										0
										0
<b>2. Plans, Specifications and Estimates (PS&amp;E)</b>										0
<b>Development for Hydraulics</b>										0
Detention Pond Analysis and Design	1	2	16	24	24	40				107
Detention pond sheets	1	2	4	8	24	32	8	32		111
										0
<b>HOURS SUB-TOTALS</b>	<b>2</b>	<b>4</b>	<b>20</b>	<b>32</b>	<b>48</b>	<b>72</b>	<b>8</b>	<b>32</b>	<b>0</b>	<b>218</b>
LOADED HOURLY RATE	\$300.00	\$240.00	\$240.00	\$187.00	\$170.00	\$140.00	\$150.00	\$95.00	\$78.00	
<b>SUBTOTAL LABOR (FC 160 (163))</b>	<b>\$600.00</b>	<b>\$960.00</b>	<b>\$4,800.00</b>	<b>\$5,984.00</b>	<b>\$8,160.00</b>	<b>\$10,080.00</b>	<b>\$1,200.00</b>	<b>\$3,040.00</b>	<b>\$0.00</b>	<b>\$34,824.00</b>
TASK DESCRIPTION	PROJECT MANAGER	QUALITY MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER- IN- TRAINING II	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL

May 22, 2025

Client: Entech Civil Engineers (Fort Bend County)  
Attn: Mr. Chris Orosco, P.E., Vice President

Submitted Electronically Only via E-Mail: [Chris Orosco – COrosco@entechhou.com](mailto:Chris Orosco – COrosco@entechhou.com)

**RE: Proposal for Geotechnical Drilling, Testing and Engineering Services (GEO)  
Proposed Fort Bend County – Powerline Rd. Project – Segment 2  
Project Limits: From Highland Meadows Dr. To FM 2977**

**B2Z Engineering** is pleased to submit this cost proposal to provide Geotechnical Engineering Services (GEO) for the above referenced project. We are presenting this letter and cost estimate to confirm our understanding of this project and providing a description of the tasks to be performed. The broad objectives of our study will be to determine subsurface conditions for use by others in completing the design of the above referenced project. Described in this proposal are:

- Our understanding of pertinent project characteristics
- Our proposed scope for field and laboratory study
- Our proposed scope for engineering evaluation and reporting
- Our tentative project schedule
- Our project lump sum fee

**I. Geotechnical Drilling and Miscellaneous Field Services (GEO - Drill)**

Based on the location map (or general directive) provided to **B2Z**, we are proposing the drilling and sampling of subsurface materials within the project limits as follows:

- Geotechnical (Pavement) Borings
  - Eight (8) borings will be drilled at proposed locations of the project alignment (for Pavement Design) at approximate 1,000 foot spacing (Borings will be advanced to a depth of approximately 15 feet below the existing top of natural ground) (Borings will be field tested – Standard Penetration Test (SPT)).
  - Four (4) borings will be drilled at proposed locations of the proposed project Detention Ponds (Borings will be advanced to a depth of approximately 20 feet below the existing top of natural ground) (Borings will be field tested – Standard Penetration Test (SPT)).

The Client will be responsible for obtaining any necessary permits or authorization, including any needed clearing, to access areas (right of entry) where the borings are to be drilled. B2Z will stake the boring locations and provide utility clearances prior to performing the field exploration portion of the project.

The borings will be advanced to the specified depths and in-situ soil testing will be performed in general accordance with ASTM Standard Test Procedures (ASTM D1586 – Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils). The soil will be sampled as needed to verify subsurface materials and strata changes. Final drilling depths and elevations will be based on topographic conditions at the time of our drilling operations.

All samples will be removed from the sample apparatus during drilling operations. B2Z personnel will conduct various field tests on the recovered samples, visually classify the samples, and record the appropriate data on a field boring log. The samples will be appropriately packaged to minimize loss of their natural moisture content and to reduce the possibility of damage during transportation to our soils laboratory.

Following completion of drilling, sampling, and subsurface water monitoring operations, all boreholes will be backfilled with soil cuttings from the completed borings. If there is not enough soil cuttings available, alternate fill will be used to backfill the completed boreholes. Borings taken in existing roadway will be patched with cold mix paving (or other).

This proposal **does not** include activities and corresponding costs that may be associated with the following:

- Providing an ATV mounted drill rig, dozer or special equipment to clear areas of vegetation and debris or to regrade the site to gain access to the boring locations;
- Regrading the site or portions of the site after drilling activities are completed;
- Site safety meetings that may be required; or
- Encountering hazardous or contaminated soils or substances during our field activities.

We will notify you should these services become necessary for us to complete our field exploration activities. We can arrange to provide for these services as part of our project scope, should you authorize us to do so.

## **II. Geotechnical Laboratory Testing Services (GEO - Test)**

Geotechnical Laboratory Testing will be performed on the samples recovered during the field study to evaluate their physical and engineering properties. Testing shall include several of the following test procedures:

- (1) Atterberg Limits (ASTM D4318)
- (2) Gradation (-200) (ASTM D1140)
- (3) Particle Size (Sieve) Analysis with Hydrometer (ASTM D422 / D7928)
- (4) Lab. Determination of Moisture in Soils (ASTM D2216)
- (5) Lime Series Testing (pH Relation) – Tex-121-E (Part III)
- (6) Sulfate Content of Soils – Tex-145-E

### **III. Geotechnical Engineering Services (GEO – Eng)**

Engineering analyses will be conducted after reviewing the results of both the field and laboratory phases of our study. The findings and conclusions derived from our analyses will be presented in an electronic engineering report (.pdf), which will be prepared by one of our engineers. The report will include a boring location plan, boring logs with laboratory classification of recovered soil samples and subsurface water conditions encountered. The report will provide engineering analyses/recommendations for:

#### **FC 110**

Geotechnical Borings and Investigations
a). Manage, Coord., & Boring Log / Geo Data Creation
a-1). Management, Oversight, Invoicing, etc.
a-2). Coordination of Field Activities
a-3). Stake Borings/Utility Locates/Coord. - Eng. Tech
a-5). Boring Log / Geo Data Creation
b). Engineering & Evaluation of Data
b-1). Pavement Geo Parameter Analysis
b-2). Detention Pond Geo Parameter Analysis
c). Geo Report
c-1). Geo Report/Memo (Data Report)
c-2). Meetings/Addl. Coord. (Coord. Time w/ Client)

#### **FC 160**

Pavement Design (All) (incl Pavement Design Report - Rigid)
---

### **Project Schedule**

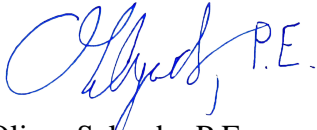
We should be able to start the field work within 2 to 4 weeks after receiving your written authorization or after obtaining permission for rights of entry (ROE), whichever is later. Based on scope of work, field work will take approximately 1 week to complete. Draft geotechnical report will be submitted approximately 4 weeks after completion of the field and laboratory testing. Final geotechnical report will be submitted approximately 2 weeks after receiving comments from Client.

### **Cost**

Based on the scope of work outlined within this proposal, the cost of the field investigation, laboratory testing & geotechnical report will be a total cost of \$59,016.80. The cost estimate using the estimated project quantities and requirements is presented in the enclosed Itemized Geotechnical Fee Estimate spreadsheet (Attachment A).

We appreciate the opportunity to propose on this project. We hope this proposal meets with your approval. If you have any questions, please contact us.

Respectfully Submitted,  
B2Z Engineering



Oliver Salgado, P.E.  
Executive Vice President / Senior Project Manager

Attached:

- Attachment A – Itemized Fee Estimate

**Attachment A  
Fee Schedule**

**PROJECT NAME: Fort Bend County - Powerline Rd Project**  
**CLIENT: Entech Civil Engineers (for Fort Bend County)**  
**PRIME CONSULTANT: Entech Civil Engineers**  
**SUB-CONSULTANT: B2Z Engineering**



TASK DESCRIPTION	NO OF DWGS	PROJECT / SUPPORT MANAGER	GEOTECHNICAL ENGINEER	PROJECT ENGINEER	ENGINEER TECH	ADMIN/ CLERICAL	TOTAL HRS. & COSTS
<b>CONTRACT RATE PER HOUR (Loaded Rate)</b>		\$ 245.39	\$ 216.52	\$ 162.39	\$ 101.04	\$ 83.00	
<b>FUNCTION CODE (110) – ROUTE AND DESIGN STUDIES</b>							
110 Geotechnical Borings and Investigations							
a). Manage, Coord., & Boring Log / Geo Data Creation							
a-1). Management, Oversight, Invoicing, etc.				1			1
a-2). Coordination of Field Activities				1			1
a-3). Stake Borings/Utility Locates/Coord. - Eng. Tech					2		2
a-5). Boring Log / Geo Data Creation				8		8	16
b). Engineering & Evaluation of Data							
b-1). Pavement Geo Parameter Analysis			2				2
b-2). Det Pond Geo Parameter Analysis			4	8			12
c). Geo Report							
c-1). Geo Report/Memo (Data Report)			4	4	4	4	16
c-2). Meetings/Addl. Coord. (Coord. Time w/ Client)		4					4
<b>HOURS SUB-TOTALS</b>		4	10	22	6	12	54
<b>TOTAL LABOR COSTS</b>		\$ 981.56	\$ 2,165.20	\$ 3,572.58	\$ 606.24	\$ 996.00	\$ 8,321.58
<b>SUBTOTAL FC 110</b>							\$ 8,321.58

<b>FUNCTION CODE (160) – ROADWAY DESIGN CONTROLS</b>							
160 Pavement Design (All) (incl Pavement Design Report - Rigid)		8	30	62	8	16	124
<b>HOURS SUB-TOTALS</b>		8	30	62	8	16	124
<b>TOTAL LABOR COSTS</b>		\$ 1,963.12	\$ 6,495.60	\$ 10,068.18	\$ 808.32	\$ 1,328.00	\$ 20,663.22
<b>SUBTOTAL FC 160</b>							\$ 20,663.22

UNIT COST - MATERIALS / TESTING (FC110)	TEST DESC	UNIT	QUANTITY	COST	TOTAL
Soil Boring (Solid Stem)		LF	200	\$ 38.00	\$ 7,600.00
Determining Moisture Content in Soil Materials	ASTM D 2216 / Tex-103-E	each	76	\$ 12.00	\$ 912.00
Atterberg Limits of Soils	ASTM D 4318 / Tex-104-106-E	each	52	\$ 135.00	\$ 7,020.00
Determining the Amount of Material in Soils Finer than the 75 micrometer (No. 200) Sieve	ASTM D 1140 / Tex-111-E	each	52	\$ 60.00	\$ 3,120.00
Full Sieve Gradation & Hydrometer	ASTM D 422 / Tex-110-E	each	6	\$ 90.00	\$ 540.00
Determining Sulfate Content in Soils - Colorimetric Method	Tex-145-E	each	12	\$ 95.00	\$ 1,140.00
Lime Series Testing (pH Relation)	Tex-121-E Part III	each	4	\$ 400.00	\$ 1,600.00
<b>SUBTOTAL UNIT COST - MATERIALS / TESTING</b>					\$ 21,932.00

UNIT COST - DIRECT EXPENSES (FC110)	UNIT	QUANTITY	UNIT	TOTAL
Traffic Control Services, Arrow Boards & Attenuator Trucks	DAY	2	\$ 2,500.00	\$ 5,000.00
Mobilization of Drilling Rig	DAY	4	\$ 475.00	\$ 1,900.00
Pavement Hole Patch for Bores in Rdwy (ACP Cold-Mix)	EA	8	\$ 150.00	\$ 1,200.00
<b>SUBTOTAL UNIT COST - DIRECT EXPENSES</b>				\$ 8,100.00

<b>SUMMARY</b>	
TOTAL LABOR COSTS (FC 110)	\$8,321.58
TOTAL LABOR COSTS (FC 160)	\$20,663.22
TOTAL UNIT COST - MATERIALS / TESTING (FC 110)	\$21,932.00
TOTAL UNIT COST - OTHER DIRECT EXPENSES (FC 110)	\$8,100.00
<b>GRAND TOTAL</b>	<b>\$59,016.80</b>



May 1, 2025  
AVO/P59367.001

Entech Civil Engineering, Inc.  
15021 Katy Freeway, Suite #500  
Katy, TX 77094

Attn: Mr. Chris Orosco  
corosco@entechhou.com

**RE: Proposal for Topographic and Boundary Surveying Services along Powerline Road (Seg. 2) as apart of Fort Bend County, Precinct 4, 2023 Mobility Projects.**

Dear Mr. Orosco,

Halff Associates, Inc. (Halff) is pleased to submit this proposal for the professional surveying services shown above. Please see the Surveying Scope of Services Below.

The Halff Associates Survey team will perform Topographic Surveying services along a total of 12,179 linear feet (LF) of roadways in Precinct 4 of Fort Bend County, within the ETJ limits of the City of Rosenberg. Survey services will be performed in accordance with Fort Bend County Engineering Design Manual (EDM) March 2022 Edition. Halff Associates will utilize Mobile LiDAR and an aerial flight in conjunction with GPS and traditional Surveying methods to acquire data. Please see the following breakdown of each roadway and the linear footage of each.

Scope area for Surveying services:

- Main thoroughfare: Powerline Road (approximately 12,179 LF) - Beginning on the west ROW line of the Highland Meadows Drive entrance and ending at FM 2977 (Minonite Rd.) and extending 300LF north and south on FM 2977. Intersecting streets will extend 100LF past the proposed ROW.
  - Powerline Road = 8,275LF
  - Side Streets and intersections = 3,904LF
- The limits of the creek, located  $\pm 130$  feet north of Whitewing Drive, will extend 500LF north and south of Powerline Road.

Halff will perform the following Surveying services:

1. Perform cross sections at 100' intervals on all streets to 20' beyond the proposed ROW except in areas where right-of-entry (ROE) is denied, and fences are present.
2. Locate a detention pond up to the edge of paving inward, situated on the north side of Powerline Road, between Sunrise Meadow Drive and Spice Springs Lane.
3. Locate storm drain inlets and obtain depths and sizes of pipes.
4. Locate sanitary sewer manholes and obtain depths and sizes of pipes.
5. Locate above ground visible utilities.
6. Locate existing trees 8-inches diameter and greater within the proposed ROW. The client understands that certain species of trees may be difficult to identify, particularly in winter months, and the client should consider retaining an arborist to confirm the identification of certain trees in critical areas.
7. Locate boundary corners and perform records research to define the existing Right-Of-Way and produce an existing Right-Of-Way map according to TSPS Category 1B, Condition 3 standards.
8. When establishing control for the project Halff will utilize Fort Bend County Survey Monuments to establish project Horizontal and Vertical control.
9. Create control sheets for site control on 11"x17" sheets.

10. Locate utilities as marked by 811 locate services.
11. ROE template will be submitted for approval before sending to property owners.
12. Per the EDM, Baselines are required to be staked. We propose to stake the Baseline, and ROW, up to three times. Traffic control is not provided for in this contract. If traffic control is deemed necessary, it will be billed as an additional service (see optional traffic control below).
13. Prepare base map illustrating data collected above.
14. Include property ownership and boundary information.
15. Provide a base file in Open Roads Designer format.

Services performed outside the above scope of services will be provided on an hourly basis in accordance with our standard hourly rates. In order to furnish a lump sum fee, the following assumptions were made:

- This quote will be honored for up to 45 days from the date of this proposal.
- Vertical datum will be NAVD88(Geoid 18) unless otherwise specified by others prior to the commencement of the project.
- The survey can be performed utilizing a combination of aerial, conventional and GPS (utilizing VRS and RTK means).
- CADD deliverable will be in surface coordinates based on Texas State Plane Coordinate System of 1983 (NAD83/South Central Zone) utilizing a grid to surface scale factor of 1.00013 scaled about 0,0 unless otherwise requested.
- Fees are contingent upon performing Items above, concurrently.
- Sufficient boundary monumentation needed to control the survey is recoverable, and in good condition.
- There are no encroachments, overlaps, gores or other issues affecting the boundary lines.
- Halff will perform research of adequate thoroughness to support the determination of the location of intended boundaries of the land parcel surveyed and will obtain deeds of record for adjoining properties based upon current tax maps.
- Delivery of Parcel Plats are dependent on ROE requests being acknowledged, received, and permission granted. Lack of response, or permission, can have an impact on the production and delivery of parcel plats.

After receipt of the final signed Sub-agreements (and, if applicable, a signed project Work Authorization) the Survey base file will be delivered within 120 days, and the Survey Control sheets will be delivered within an additional 20 working days after delivery of the base files.

**EXHIBIT "A"**

<b>PROFESSIONAL SERVICES SCHEDULE OF FEES</b>			
<b>Task</b>	<b>Description</b>	<b>Basis</b>	<b>Fee</b>
<b>I.</b>	<b>Surveying Services</b>		<b>(pending tax exempt status)</b>
	<b>A. Boundary Survey</b>	<b>Lump Sum</b>	\$75,724.00
	<b>B. Topographic and Tree Survey (1 detention pond incl.)</b>	<b>Lump Sum</b>	\$106,414.00
	<b>C. Right-of-Entry (±60 tracts &amp; ±15 plats)</b>	<b>Lump Sum</b>	\$24,222.00
	<b>D. Staking Baseline &amp; Right-of-Way (3 times)</b>	<b>Lump Sum</b>	\$18,733.00
	<b>E. Parcel Acquisition Survey (15 parcels @ \$5,000 each)</b>	<b>Lump Sum</b>	\$75,000.00
	<b>F. Daily Traffic Control (estimated 5 days \$1,950 day)</b>	<b>Lump Sum</b>	\$9,000.00
	<b>TOTAL</b>	<b>Lump Sum</b>	<b>\$309,093.00</b>

**OPTIONAL ITEMS (not included in the above scope)**

- Optional Additional Services: **Detention Pond (±5 acres)**

Services will include: Obtaining Bore-hole locations (±5), boundary with metes & bounds, topography, and creation of one parcel for acquisition.

**EXHIBIT “B”**

<b>PROFESSIONAL SERVICES SCHEDULE OF FEES</b>				
<b>Task</b>	<b>Description</b>	<b>Basis</b>	<b>Fee</b>	
<b>I.</b>	<b>Surveying Services</b>		<b>(tax included)</b>	
	<b>A. Boundary Survey, Metes &amp; Bounds</b>	<b>Lump Sum</b>	\$6,350.00	
	<b>B. Topographic Survey</b>	<b>Lump Sum</b>	\$5,360.00	
	<b>C. Obtain Bore Hole locations for Geotech company (±5)</b>	<b>Lump Sum</b>	\$1,465.00	
	<b>D. Parcel Acquisition Survey (includes setting property corners)</b>	<b>Lump Sum</b>	\$4,000.00	
	<b>TOTAL</b>	<b>Lump Sum</b>	\$17,175.00	

Halff specifically EXCLUDES the following items from this Proposal:

- This proposal does not include research efforts normally performed by a title company.
- Research outside the original scope of this proposal; using a different surveyor's certificate; or changes made to the survey after completion (if so required), will be charged as Additional Services at our standard hourly rates.
- Return trips to reset damaged control points or property corners.
- Draft in utilities per maps obtained from utility service providers. (SUE QL-C & D)

We trust this proposal is satisfactory and appreciate the opportunity to be of service to you. If this proposal meets with your approval, please sign, initial and date in the spaces provided below and return one copy as your order to proceed and approval of the budget.

Yours very truly,  
HALFF ASSOCIATES, INC.



Malcolm T. Martin RPLS  
Survey Team Leader  
TBPELS Survey Firm No. 10029606

CC: Michael Barbier, PE  
Vice President

### **Work Zone Traffic Control:**

Halff will provide standard temporary work zone traffic control consisting of cones and free-standing signage for this project in accordance with the TMUTCD. Certified traffic control such as lane closure(s), flag person(s), changeable message board(s), and/or arrow board(s), if needed or required by Fort Bend County, will be provided by a certified traffic control provider such as Houston Barricade and Supply.

This Scope of Services does not include an engineered traffic control plan and if required for permit approval, Halff will notify Entech and submit a supplemental agreement for authorization prior to proceeding with additional work.

### **Schedule:**

Field work to begin no sooner than 7 days after notice to proceed. Due to uncontrollable factors such as ground conditions, weather, safety hazards, and ROE, Halff reserves the right to request more time to facilitate field efforts should one of these circumstances exist. Delays in the ROE process, communication with landowners, can have significant impacts on schedule.



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

May 23<sup>rd</sup>, 2025

Mr. Chris Orosco, P.E.  
Vice President  
Entech Civil Engineers  
15021 Katy Freeway, Suite 500  
Houston, Texas 77094

**RE: Proposal for Subsurface Utility Engineering (SUE) and Utility Coordination Services for the Powerline Road Widening Project from FM 2977 (Minonite Road) to Highland Meadows Drive.**

Dear Mr. Orosco,

Lockwood, Andrews & Newnam, Inc. (LAN) is pleased to submit this proposal to support the Powerline Road project with SUE and Utility Coordination Services. This proposal is based on our correspondence and meetings discussing the project details. Below is the scope of services and fee. We are prepared to begin work upon receipt of the Notice to Proceed and look forward to assisting you with the success of this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Nick Krajewski", written over a horizontal line.

5/23/2025

Nick Krajewski, P.E.  
SUE and Utility Coordination Manager  
Lockwood, Andrews & Newnam, Inc.



## **SCOPE OF SERVICES**

**Roadway:** Powerline Road

**County:** Fort Bend

**Limits:** FM 2977 (Minonite Road) to Highland Meadows Drive.

### **UTILITY ADJUSTMENT COORDINATION**

Utility Adjustment Coordination includes communicating, coordinating, and conducting meetings with individual utility companies, Local Public Agencies (LPAs), Texas Department of Transportation staff, maintenance staff, and Fort Bend County staff. The Engineer's utility coordination duties include preparation or assisting others in preparing utility agreement assemblies including utility agreements, utility reimbursable billings, joint use agreements, assisting utility companies with utility permit submittals, and assisting with documentation for advance funding agreements (AFAs).

#### **A. Utility Coordination**

Provide utility coordination and liaison activities with involved utility owners, their consultants, and the County to achieve reasonable, timely project notifications. In conjunction with coordination meetings, prepare meeting notes, create and update a utility conflict table, create action item log, perform document control, and assist with conflict analysis and resolution. Provide services as the "Responsible Party" as referenced in TxDOT's— Utility Cooperative Management Process and Right of Way Utility Adjustment Subprocess (See the TxDOT Right of Way (ROW) Utilities Manual, Chapter 2).

1. Coordinate utility related activities with the County, or its designee, to facilitate the progress and reasonably timely completion of the County's design phase. Provide the following:
  - a. Work Plan. Coordinate a work plan including a list of the proposed meetings and coordination activities, related tasks to be performed, schedule and an estimate for the anticipated impacted utility facilities. The work plan must satisfy the requirements of the project and must be approved by the County prior to commencing work.
  - b. Initial Project Meeting. Attend an initial meeting and an onsite inspection to understand existing conditions and project requirements and prepare written notes of the meeting. The Engineer shall prepare the Notice of Proposed Construction (NOPC). If requested by the County, the Engineer shall send the NOPC to the Utility Companies 14 to 30 days prior to the initial project meeting. The Engineer shall send NOPC form to



- stakeholders in the project limits to give notice of the upcoming construction project.
- c. External Communications. Coordinate activities with the County, its contractors, representatives, and stakeholders, as authorized by the County. Provide the County with copies of diaries, correspondence, and other documentation of work-related communications between the Utility Coordinator, utility owners, and other outside entities at submittal milestones and upon request of the County.
  - d. Permits for rights of entry (for access into private property). Apply for and secure reasonably necessary permits from city, county, municipality, railroad, or other jurisdiction to allow the Engineer to work within existing streets, roads or private property for additional Designating and Utility Engineering Investigation within the project limits.
  - e. Use the Notice of Required Accommodation (NORA) forms if the utility is found to conflict with the project. The Engineer shall provide documentation to accompany these forms.
  - f. Progress Meetings. Prepare a schedule of periodic meetings and milestone meetings with each utility company and owner or owner's representatives for coordination purposes. Meetings should commence as early as reasonably possible in the design process and continue until completion of the project. Notify the County at least five business days in advance of each meeting to allow the County the opportunity to participate in the meeting. Prepare and distribute meeting notes of each meeting with said utility companies, owners, or owners' representatives within seven business days.
  - g. Coordinate with the local utilities committees and councils to present a footprint of the County's projects with represented utility companies and owners.
2. Provide the County and affected utility companies and owners with a contact list, Utility Conflict Table (UCT) and utility conflict layout for each project with information such as: (a) owner's name; (b) contact person; (c) telephone numbers; (d) emergency contact number; (e) e-mail addresses; (f) pertinent information concerning their respective affected utilities and facilities, including items such as the following size, number of poles, material, and other information that readily identifies the utilities companies' facilities. Update the UCT and utility conflict layout as the project progresses.
  3. Advise utility companies and owners of the general characteristics of the project and provide an illustration of the project footprint for mark-up of the utility facility locations that occupy the project area by distributing the Subsurface Utility Engineering (SUE) plan sheets of project layout sheets.



## **B. Utility Agreements for Utility Adjustments**

Coordinate with utility owners on the identified conflicts with project construction and address the Utility Accommodations Rules (UAR). Coordinate with the utility companies in the preparation of agreements associated with items such as cost estimates, plans, disposition of existing facilities, schedule, betterment, eligibility ratio, property interest, roadway designation, funding of adjustments, and the occupation of County right of way.

1. **Utility Agreement Assemblies:** A packaged agreement consisting of a Utility Joint Use Acknowledgement, Standard Utility Agreements, plans on 11x17 sheets, Statement of contract work form, Affidavit form and copy of recorded easement, schedule of work, Buy America compliance Mill Test Reports (MTR's) or Certifications, and various attachments as detailed in the UAR and the TxDOT ROW Utilities Manual
  - a. **Utility agreements:** If a utility is located within an easement, the utility company might have a compensable interest. In such a case, the Engineer should endeavor to obtain a copy of easement agreement from the utility company. The Engineer should review and determine whether a compensable interest exists and the owner's degree of eligibility. Coordinate during preparation of the utility company's adjustment plans and cost estimate. Review the plans to for compliance with the UAR and for the for conflict with the proposed project construction. The Engineer will submit a copy of the easement(s), plans, and estimate to the County via letter recommending approval. Check the estimate to verify inclusion of reimbursing costs the utility incurs for in kind replacements within the utility's easement limit. If betterment is identified, two estimates (one for in kind replacement and one for betterment), created by the utility company, are required for the Utility Coordinator to calculate the betterment ratio.
  - b. **State Utility Procedure (SUP):** When applicable, the Engineer shall follow the procedures found in Chapter 8, Section 6 in the TxDOT ROW Utilities Manual.
  - c. **Local Utility Procedure (LUP):** When applicable, the Engineer shall follow the procedure found in Chapter 8, Section 8 in the TxDOT ROW Utilities Manual.
2. **Electronically submit the executed Utility Agreement assemblies,** which include the appropriate forms as detailed in the UAR and supplied by the County, a copy of the recorded easement deed, plans, and estimate to the County along with a cover letter recommending approval. The utility must be reimbursed eligible costs incurred within their easement limits for replacement in kind. The transmittal letter should also include a description of the work being done as well as the estimated cost. and schedule of work.



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

3. Determine which utilities will be installed by agreement between the utility and County. Process Joint Use Agreement Acknowledgement (ROW-U-JUA), utility agreements, and determine necessity of escrow agreements, and forward these documents to the County for final approval.
4. Coordination, review, and submit of documentation to be included in all the utility agreements conforming to the requirements of 23 C.F.R. Section 645A. Coordinate preparation, compilation, gathering, and collection of required and supporting documents to be included with the utility agreements.
5. For each utility, the records for all utility owners' costs should be in accordance with the requirements of 23 C.F.R. Section 645A, in a format that is compatible with the estimate attached to the utility agreement and detail as determined necessary for analysis. The totals for labor, overhead, construction costs, travel, transportation, equipment, materials, supplies, and other services should be presented in such a manner as to permit comparison with the approved estimate.
6. Maintain a set of records for each utility adjustment costs for each utility for a period of time sufficient to complete all final payments to the utility companies or owners.

## UTILITY ENGINEERING

Utility Engineering includes the identification of utility conflicts, coordination, compliance with the Utility Accommodation Rules (UAR), and resolution of utility conflicts. Coordinate activities with the County, or the County's designee, to facilitate the progress and reasonably timely completion of the County's design phase.

### A. Coordination of Engineering Activities

1. Utility Layout: Maintain a utility layout in the current approved version of OpenRoads Civil Design system used by the County. The layout should include existing utilities which are to remain in place or be abandoned, and adjusted utilities. Use the layout to monitor the necessity of relocation and evaluate alternatives. Use the layout of existing utilities as prepared and make a determination of the following:
  - a. Facilities in conflict with the proposed project that are to be relocated.
  - b. Facilities to be removed or abandoned in place.
  - c. Facilities to remain in service and in place because of roadway design adjustments and meeting the current UAR.
  - d. If there are additional facilities, not shown in the Subsurface Utility Engineering (SUE) documents, which require relocation, the Engineer



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

should coordinate this information with the County with reasonable promptness upon discovery.

## **2. Public and Individual Meetings with Utility Companies**

Facilitate utility conflict identification and resolution by the following actions:

- a.** Establish contact with each existing utility within and adjacent to the project limits and set up utility coordination meetings to discuss concepts and options for construction.
- b.** Schedule utility coordination meetings and to facilitate compatibility with the schedule of the County.
- c.** Set agenda for each coordination meeting and coordinate agenda items requested by the County.
- d.** Initial Project Meeting: Attend an initial meeting and an on-site inspection to become familiar with existing conditions, project requirements and prepare and distribute written notes for the meeting.
- e.** Progress Meetings: Meet with the County and Prime periodically to coordinate the work effort and resolve problems and prepare written notes meetings. During the progress meetings, review the following:
  - I.** Activities completed since the last meeting.
  - II.** Problems encountered.
  - III.** Late activities.
  - IV.** Activities required by the next progress meeting.
  - V.** Solutions for unresolved and/or anticipated problems.
  - VI.** Information or items required from other agencies/consultants.

## **3. Review of Utility's Proposed Adjustments**

- a.** Evaluate alternatives: Evaluate alternative in the adjustment of utilities balancing the needs of both the County and the Utility. Use the AMA strategy as part of evaluating the alternatives.
- b.** Review plans for compliance with UAR, Buy America materials and proposed location data.
- c.** Check with utility owners to confirm their receipt of updates for project design development so that utility owners are reviewing the most current plans, quality and accuracy of utility adjustment data, as well as compliance of UAR, as it pertains to the plans. The responsibility for compliance, quality, and accuracy of utility adjustment plans will remain with the utility company.



## UTILITY ENGINEERING INVESTIGATION

Utility engineering investigation includes utility investigations subsurface and above ground prepared in accordance with ASCE/CI Standard 38-22 [(<http://www.fhwa.dot.gov/programadmin/asce.cfm>)] and Utility Quality Levels.

### A. Utility Quality Levels (QL)

Utility Quality Levels are defined in cumulative order (least to greatest) as follows:

1. Quality Level D - Quality level value assigned to a utility segment or utility feature after a review and compilation of data sources such as existing records, oral recollections, One-Call markings, and data repositories.
2. Quality Level C - Quality level value assigned to a utility segment or utility feature after surveying aboveground (i.e., visible) utility features and using professional judgement to correlate the surveyed locations of these features with those from existing utility records. Prime or consultant surveyor to provide these surveyed features.
3. Quality Level B - Quality level value assigned to a utility segment or subsurface utility feature whose existence and position is based upon appropriate surface geophysical methods combined with professional judgment and whose location is tied to the project survey datum. Horizontal accuracy of Designated Utilities is 18" (including survey tolerances) unless otherwise indicated for a specific segment of the deliverable. Quality Level B incorporates quality levels C and D information. A composite plot is created.
4. Quality Level A – Quality level value assigned to a portion (x, y, and z geometry) of a point of a subsurface utility feature that is directly exposed, measured, and whose location and dimensions are tied to the project survey datum. Other measurable, observable, and judged utility attributes are also recorded. The utility location must be tied to the project survey datum with an accuracy of 0.1 feet (30-mm) vertical and to 0.2 feet (60-mm) horizontal. As test holes may be requested up front or during the project, test holes done prior to completion of QL D, C, or B deliverables must be symbolized on the QL B deliverable with a call out indicating test holes number. This is in addition to and not in lieu of the test hole.

### B. Utility Investigations Methodology

#### 1. Utility Investigation Quality Level D

The Engineer shall:

- a. Perform records research from reasonably available resources. Sources include but are not limited to: Texas811, Railroad Commission of Texas



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

(Texas RRC), verbal recollection, record drawing information from plans, plats, permits and other applicable information provided by the utility owners or other stakeholders.

- b. Document utility owners and contact information.
- c. Create a utility drawing of information gathered.

I. The Utility Engineer shall perform 36,000 LF of QL D SUE.

## 2. Utility Investigation Quality Level C

The Engineer shall:

- a. In combination with existing Quality Level D information, utilize surveyed above-ground utility features and professional judgement to upgrade Quality Level D information to Quality Level C. For those utilities unable to be upgraded, retain as Quality Level D.
- b. Overhead utilities information should be gathered and depicted. Document sag elevations of lowest utility at road crossings, per best practices document.
- c. Gather storm and sanitary sewer information from Level D and upgraded to Level C as possible, unless otherwise directed by the County.
- d. Mapping of underground vaults may be requested by the County.
- e. Create composite utility drawing of information gathered.

I. The Utility Engineer shall perform 27,000 LF of QL C SUE.

## 3. Designate (Quality Level B)

Designate means to indicate the horizontal location of underground utilities by the application and interpretation of appropriate non-destructive surface geophysical techniques and reference to established survey control. (Quality Level B) services are inclusive of Quality Levels C and D.

The Utility Engineer must:

- a. As requested by the County, compile "record drawing " information from plans, plats and other location data as provided by the utility owners.
- b. Coordinate with utility owner when utility owner's policy is to designate their own facilities at no cost for preliminary survey purposes. Review utility owner's work for accuracy and completeness.
- c. Designate, record, and mark the horizontal location of the existing utility facilities using non-destructive surface geophysical techniques.
- d. Using both active and passive scans to attempt to locate any additional utilities, including unrecorded and abandoned storm and sanitary sewer facilities, at the direction of the County, may be investigated using



additional methods such as rodding that would then classify them as Quality Level B. A non-water based pink paint or pink pin flags must be used on all surface markings of underground utilities.

- e. Correlate utility owner records with designating data and resolve discrepancies using professional judgment. Prepare and deliver to the County a color-coded composite utility facility plan with utility owner names, quality levels, line sizes and subsurface utility locate (test hole) locations. The Engineer and County acknowledge that the line sizes of designated utility facilities detailed on the deliverable will be from the best available records and that an actual line size is normally determined from a test hole vacuum excavation. A note should be placed on the designate deliverable that states "lines sizes are from best available records". All above-ground utility feature locations must be included in the deliverable to the County. Provided in the latest version of OpenRoads civil design system used by the County. The electronic file will be delivered on CD, DVD, or USB flash drive, as required by the County. A hard copy is required and should be signed, sealed, and dated by the Engineer. When requested by the County as an additional service the designated utility information should be over laid on the County's design plans.
  - f. Determine and inform the County of the approximate electronic utility depths at critical locations as determined by the County. The limits of this additional information should be determined prior to the commencement of work. This depth indication is understood by both the Engineer and the County to be approximate only and is not intended to be used preparing the right of way and construction plans.
  - g. Provide a monthly summary, with weekly updates, of work completed and in process with adequate detail to verify compliance with agreed work schedule.
  - h. Provide close-out permits when determined necessary by the Engineer.
  - i. Identify utilities discovered from Quality Levels C and D investigation but cannot be depicted in Quality Level B standards. Document these utilities using a unique line style and symbology in the designate (Quality Level B) deliverable.
  - j. Comply with all applicable TxDOT policy and procedural manuals.
- I. The Utility Engineer shall perform 20,500 LF of QLB SUE
4. Subsurface Utility Locate (Test Hole) Service (Quality Level A) Locate is the process used to obtain precise horizontal and vertical position, material type, condition, size, and other data that may be obtainable about the utility facility and its surrounding environment through exposure by non-destructive excavation techniques that ensures the integrity of the utility facility. Subsurface Utility Locate (Test Hole) Services (Quality Level A) are inclusive of Quality Levels B, C, and D.



The Utility Engineer must:

- a. Review requested test hole locations and advise the County in the development of a recommended locate (test hole) work plan relative to the existing utility infrastructure and proposed project design elements.
- b. Coordinate with utility owner inspectors as may be required by law or utility owner policy.
- c. Place Texas 811 ticket 48 hours prior to excavation.
- d. As neatly as practical cut and remove existing pavement material, such that the cut does not exceed 0.10 square meters (1.076 square feet) unless unusual circumstances exist.
- e. Measure and record the following data on a mutually agreed test hole data sheet that has been sealed and dated by the Engineer:
  - I. Elevation of top of utility tied to the datum of the furnished plan.
  - II. Minimum of two benchmarks utilized. Elevations must be within an accuracy of 15mm (.591 inches) of utilized benchmarks.
  - III. Elevation of existing grade over utility at test hole location.
  - IV. Horizontal location referenced to project coordinate datum.
  - V. Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.
  - VI. Utility facility material(s).
  - VII. Utility facility condition.
  - VIII. Pavement thickness and type.
  - IX. Coating/wrapping information and condition.
  - X. Unusual circumstances or field conditions.
- f. Excavate test holes in such a manner as to avoid damage to wrappings, coatings, cathodic protection or other protective coverings and features. Water excavation can only be utilized with written approval from the County.
- g. Be responsible for damage to the utility during the locating process. In the event of damage, the Engineer must stop work, notify the appropriate utility facility owner, the County and appropriate regulatory agencies. The regulatory agencies include: the Railroad Commission of Texas and the Texas Commission on Environmental Quality. The Engineer must not resume work until the utility facility owner has determined the corrective action to be taken.
- h. Back fill excavations with material determined by Engineer to be appropriate and compact backfill. The Engineer is responsible for the backfill and surface restoration for a period of three years.
- i. Provide restoration of work site and landscape determined by the Engineer to be equal or better condition than before excavation.



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

- j. Plot utility location position information to scale and provide a utility plan signed and sealed by the responsible Engineer. Provide documentation in the latest version of MicroStation and be fully compatible with the OpenRoads civil design system used by the County. The electronic file will be delivered on CD, DVD or USB flash drive as requested. When requested by the County, the locate information must be overlaid on the County's design plans.
  - k. Return plans, profiles, and test hole data sheets to the County. If requested, conduct a review of the findings with the County.
  - l. Close-out permits as required.
- I. The Utility Engineer shall perform 15 test holes of QLA SUE

## **PROJECT MANAGEMENT AND ADMINISTRATION**

The Engineer, in association with the Prime and County Project Managers (PM), will direct and coordinate activities associated with this project to comply with County policies and procedures, and to deliver that work on time.

1. Project Management  
Manage activities including preparing correspondence, invoicing, progress reports, and reviewing schedules.

The Utility Engineer must:

- a. Prepare monthly written progress reports for this project.
- b. Develop and maintain a project schedule to track project progress. The schedule submittals must be provided in hard copy and electronic format.
- c. Meet on a monthly scheduled basis with the County to review project progress.
- d. Prepare, distribute, and file both written and electronic correspondence.
- e. Prepare and distribute meeting minutes within 72 hours after the meeting.
- f. Document phone calls and conference calls during the project to coordinate the work for various team members.
- g. Update UCT and utility layout sheets at each milestone, prior to each utility meeting.



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

<b>Prime Consultant: Entech Subconsultant: LAN</b>	<b>PROJECT SUBTOTALS</b>
<b>Utility Adjustment Coordination</b>	\$ 63,825.52
<b>Utility Engineering</b>	\$ 29,681.56
<b>Utility Engineering Investigation</b>	\$ 13,662.08
<b>Subsurface Utility Engineering (SUE)</b>	\$ 135,475.00
<b>Project Management and Administration</b>	\$ 12,638.32
<b>Other Direct Expenses</b>	\$ 17,580.00
<b>PROJECT GRAND TOTAL</b>	<b>\$ 272,862.48</b>



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

TASK DESCRIPTION	UTILITY PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	ENGINEER IN TRAINING	SENIOR ENGINEER TECH	SUE FIELD MANAGER	SENIOR UTILITY COORDINATOR	UTILITY COORDINATOR	ADMIN CLERICAL	TOTAL LABOR HRS. & COSTS
<b>UTILITY ADJUSTMENT COORDINATION</b>										
A. Utility Coordination										
1a. Develop Work Plan	2	2					2	2		8
1b. Initial Project Meeting and Notice of Proposed Construction (NOPC) Forms	1		1				8	8		18
1c. External Communications	4		4				8	8		24
1d. Permits for Right of Entry	1							8	8	17
1e. Notice of Required Accommodation (NORA) Forms	1		1				8	8		18
1f. Progress Meetings	8		8				16	16		48
1g. Coordinate with Local Committees and Councils	1		1				4	4		10
3. Develop and Maintain Utility Conflict Table	2		16				24	24		66
4. Advise Utility Companies on Project Characteristics	2		2				8	8		20
B. Utility Agreement Assemblies										
1. Utility Agreement Assemblies (Assume 7 Assemblies)	8		8				16	16		48
2. Electronically Submit Utility Agreement Assemblies	1						1		2	4
3. Determine and Process Joint Use Agreements		4	4				8	8		24
4. Prepare, Compile and Review Supporting Documents		4	4				16	16		40
5. Maintain Set of Records for Adjustment Costs			4				8	8		20
<b>HOURS SUB-TOTALS</b>										
	31	10	53	0	0	0	127	134	10	365
<b>CONTRACT RATE PER HOUR</b>										
	\$292.58	\$292.58	\$220.93	\$133.48	\$164.20	\$154.42	\$164.95	\$134.35	\$116.89	
<b>TOTAL LABOR COSTS</b>										
	\$9,069.98	\$2,925.80	\$11,709.29	\$0.00	\$0.00	\$0.00	\$20,948.65	\$18,002.90	\$1,168.90	\$63,825.52
<b>% DISTRIBUTION OF STAFFING</b>										
	8.49%	2.74%	14.52%	0.00%	0.00%	0.00%	34.79%	36.71%	2.74%	
<b>SUBTOTAL - UTILITY ADJUSTMENT COORDINATION</b>										<b>\$63,825.52</b>

TASK DESCRIPTION	UTILITY PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	ENGINEER IN TRAINING	SENIOR ENGINEER TECH	SUE FIELD MANAGER	SENIOR UTILITY COORDINATOR	UTILITY COORDINATOR	ADMIN CLERICAL	TOTAL LABOR HRS. & COSTS
<b>UTILITY ENGINEERING</b>										
A. Coordination of Engineering Activities										
1. Create and Maintain Utility Layout Sheets	2			28	28					58
1a. Determine Facilities in Conflict		4	4				8	8		24
1b. Determine Facilities to be Removed or Abandoned		2	2				4	4		12
1c. Determine Facilities to Remain in Place		2	2				4	4		12
2. Public and Individual Meetings with Utility Owners	4	4					16	16		40
3. Review of Utility's Proposed Adjustments	4	4					8	8		24
<b>HOURS SUB-TOTALS</b>										
	10	16	8	28	28	0	40	40	0	170
<b>CONTRACT RATE PER HOUR</b>										
	\$292.58	\$292.58	\$220.93	\$133.48	\$164.20	\$154.42	\$164.95	\$134.35	\$116.89	
<b>TOTAL LABOR COSTS</b>										
	\$2,925.80	\$4,681.28	\$1,767.44	\$3,737.44	\$4,597.60	\$0.00	\$6,598.00	\$5,374.00	\$0.00	\$29,681.56
<b>% DISTRIBUTION OF STAFFING</b>										
	9.86%	15.77%	5.95%	12.59%	15.49%	0.00%	22.23%	18.11%	0.00%	
<b>SUBTOTAL - UTILITY ENGINEERING</b>										<b>\$29,681.56</b>



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

TASK DESCRIPTION	UTILITY PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	ENGINEER IN TRAINING	SENIOR ENGINEER TECH	SUE FIELD MANAGER	SENIOR UTILITY COORDINATOR	UTILITY COORDINATOR	ADMIN CLERICAL	TOTAL LABOR HRS. & COSTS
<b>UTILITY ENGINEERING INVESTIGATION</b>										
A. Quality Levels (QL)										
1. Coordinate/ Manage/ Quality Control QL D	4					4				8
2. Coordinate/ Manage/ Quality Control QL C	4					4				8
3. Coordinate/ Manage/ Quality Control QL B	8					8				16
4. Coordinate/ Manage/ Quality Control QL A	4					4				8
5. Create and Maintain Existing Utility CADD File		8		8	8					24
<b>HOURS SUB-TOTALS</b>	20	8	0	8	8	20	0	0	0	64
<b>CONTRACT RATE PER HOUR</b>	\$292.58	\$292.58	\$220.93	\$133.48	\$164.20	\$154.42	\$164.95	\$134.35	\$116.89	
<b>TOTAL LABOR COSTS</b>	\$5,851.60	\$2,340.64	\$0.00	\$1,067.84	\$1,313.60	\$3,088.40	\$0.00	\$0.00	\$0.00	\$13,662.08
<b>% DISTRIBUTION OF STAFFING</b>	31.25%	12.50%	0.00%	12.50%	12.50%	31.25%	0.00%	0.00%	0.00%	
<b>SUBTOTAL - UTILITY ENGINEERING INVESTIGATION</b>										<b>\$13,662.08</b>

TASK DESCRIPTION	UNIT	RATE	ESTIMATED QUANTITY	TOTAL ESTIMATED COST
<b>SUBSURFACE UTILITY ENGINEERING (SUE)</b>				
<b>SUE Quality Level D</b>				
Includes labor and equipment for records research, CADD, and mapping.	LF	\$0.95	36,000	\$34,200.00
<b>SUE Quality Level C</b>				
Includes labor and equipment for records research, CADD, and mapping.	LF	\$1.15	27,000	\$31,050.00
<b>SUE Quality Level B</b>				
Includes labor and equipment for records research, designating, engineering, CADD, mapping, and limited traffic control	LF	\$2.25	20,500	\$46,125.00
<b>SUE Quality Level A</b>				
Test holes 5'-10' deep (Includes labor and equipment for engineering, CADD, surveying, vacuum excavation and limited traffic control)	EA	\$1,500.00	15	\$22,500.00
<b>SUE Mobilization/Demobilization</b>				
This cost is intended to be an expense compensation for mobilizing/demobilizing personnel and equipment portal to portal. Vacuum excavation truck, equipment, travel time for 2-man crew, fuel. Mileage log to be provided.	MILE	\$4.00	400	\$1,600.00
<b>SUBTOTAL - SUBSURFACE UTILITY ENGINEERING (SUE)</b>				<b>\$135,475.00</b>

TASK DESCRIPTION	UTILITY PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	ENGINEER IN TRAINING	SENIOR ENGINEER TECH	SUE FIELD MANAGER	SENIOR UTILITY COORDINATOR	UTILITY COORDINATOR	ADMIN CLERICAL	TOTAL LABOR HRS. & COSTS
<b>PROJECT MANAGEMENT AND ADMINISTRATION</b>										
1. Project Management and Coordination	40								8	48
<b>HOURS SUB-TOTALS</b>	40	0	0	0	0	0	0	0	8	48
<b>CONTRACT RATE PER HOUR</b>	\$292.58	\$292.58	\$220.93	\$133.48	\$164.20	\$154.42	\$164.95	\$134.35	\$116.89	
<b>TOTAL LABOR COSTS</b>	\$11,703.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$935.12	\$12,638.32
<b>% DISTRIBUTION OF STAFFING</b>	92.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.40%	
<b>SUBTOTAL - PROJECT MANAGEMENT AND ADMINISTRATION</b>										<b>\$12,638.32</b>



3700 West Sam Houston Parkway S, Suite 400 | Houston, TX 77042 | 713.266.6900 | lan-inc.com

OTHER DIRECT EXPENSES	UNIT	AUTHORIZED RATE	ESTIMATED QUANTITY	TOTAL ESTIMATED COST
Mileage	MILE	\$0.70	400	\$280.00
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	DAY	\$35.00	10	\$350.00
Portable Message Board	DAY	\$500.00	3	\$1,500.00
Traffic Control Services, Arrow Boards and Attenuator Trucks - (includes labor, equipment and fuel)	DAY	\$5,150.00	3	\$15,450.00
<b>SUBTOTAL DIRECT EXPENSES</b>				<b>\$17,580.00</b>

SUMMARY	
TOTAL UTILITY ADJUSTMENT COORDINATION	\$63,825.52
TOTAL UTILITY ENGINEERING	\$29,681.56
TOTAL UTILITY ENGINEERING INVESTIGATION	\$13,662.08
TOTAL SUBSURFACE UTILITY ENGINEERING (SUE)	\$135,475.00
PROJECT MANAGEMENT AND ADMINISTRATION	\$12,638.32
TOTAL OTHER DIRECT EXPENSES	\$17,580.00
<b>GRAND TOTAL</b>	<b>\$272,862.48</b>



May 22, 2025

Mr. Chris Orosco  
Entech  
15021 Katy Freeway, Suite 500  
Houston, Texas 77094

Re: Powerline Segment 2  
Traffic Signal Design

Dear Mr. Orosco:

Thank you for the opportunity to provide traffic signal warrant and design services for the project known as Powerline Road Segment 2. The attached scope contains the activities which BGE will conduct.

### Scope of Services

- A. Traffic Signal Warrant Studies
- B. Traffic Signal Design
- C. Contract Administration
- D. Construction Phase Services

### Basis of Compensation and Fee

The total lump sum fee for each of these services is shown in the table below. Revisions due to changes by the client or changes in the Scope of Services will be considered additional services. Any additional services will be covered under a separate written proposal prior to proceeding.


<b>Task No.</b>	<b>Description</b>	<b>Proposed Budget</b>
A	Preliminary Design (Warrant Studies)	\$21,210.00
B.	Final Design (Traffic Signal Design)	\$85,835.00
C.	Contract Administration	\$18,190.00
	Direct Expenses	\$955.50
	<b>TOTAL</b>	<b>\$126,190.50</b>

Construction Phase Services can we provided on a Time and Materials basis as needed by the County as shown in the table below.

<b>Task No.</b>	<b>Description</b>	<b>Proposed Budget</b>
D.	Construction Phase Services	\$15,750.50
	<b>TOTAL</b>	<b>\$15,750.50</b>

If the above outlined proposal meets with your approval, please sign and return one copy of this letter for our files. *A scanned copy of the original proposal will be effective as the original.*

We look forward to working with you on this project.

Sincerely,  
  
Megan E. Siercks, PE, PTOE, PTP  
Director, Traffic Engineering

FEE SCHEDULE  
(LUMP SUM PAYMENT BASIS)  
Prelim Final Design (BGE)

Fort Bend County 2023 Mobility Bond Program  
Powerline Segment 2  
Project No. 23406  
SUMMARY OF SCOPE - Engineering

SUB PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/CLERICAL	TOTAL HRS. & COSTS	COST PER TASK
CONTRACT RATE PER HOUR	\$ 275.00	\$ 225.00	\$ 200.00	\$ 185.00	\$ 145.00	\$ 160.00	\$ 110.00	\$ 95.00		
<b>PRELIMINARY DESIGN (TIME AND MATERIALS PAYMENT BASIS)</b>										
<b>Traffic Signal Warrant Studies</b>										
<b>Powerline at FM 2977</b>										
Conduct 13 hour traffic signal turning movement counts					13				13	\$ 1,885.00
Conduct a traffic signal warrant study	1	2	4	10	16			2	35	\$ 5,885.00
Provide a Traffic signal warrant study report	1			6	10				17	\$ 2,835.00
<b>Powerline at Sunrise Meadows Drive</b>										
Conduct 13 hour traffic signal turning movement counts					13				13	\$ 1,885.00
Conduct a traffic signal warrant study	1	2	4	10	16			2	35	\$ 5,885.00
Provide a Traffic signal warrant study report	1			6	10				17	\$ 2,835.00
HOURS SUB-TOTALS	4	4	8	32	78	0	0	4	130	
<b>SUBTOTAL</b>	<b>\$1,100.00</b>	<b>\$900.00</b>	<b>\$1,600.00</b>	<b>\$5,920.00</b>	<b>\$11,310.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$380.00</b>	<b>\$21,210.00</b>	<b>\$21,210.00</b>
<b>SUBTOTAL PRELIMINARY DESIGN</b>										
	4	4	8	32	78	0	0	4	130	0
	\$1,100.00	\$900.00	\$1,600.00	\$5,920.00	\$11,310.00	\$0.00	\$0.00	\$380.00	\$21,210.00	\$21,210.00

FEE SCHEDULE  
(LUMP SUM PAYMENT BASIS)  
Prelim Final Design (BGE)

Fort Bend County 2023 Mobility Bond Program  
Powerline Segment 2  
Project No. 23406  
SUMMARY OF SCOPE - Engineering

SUB PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK
<b>CONTRACT RATE PER HOUR</b>	<b>\$ 275.00</b>	<b>\$ 225.00</b>	<b>\$ 200.00</b>	<b>\$ 185.00</b>	<b>\$ 145.00</b>	<b>\$ 160.00</b>	<b>\$ 110.00</b>	<b>\$ 95.00</b>		
<b>FINAL DESIGN (LUMP SUM PAYMENT BASIS)</b>										
<b>Miscellaneous</b>										
Cover Sheet		1	1			2	4		8	\$ 1,185.00
Index of Sheets			1	4	2	2			9	\$ 1,550.00
<b>Traffic Signal Design</b>										
<b>Powerline at FM 2977</b>										
Basis of Estimate			1	2	4	1			8	\$ 1,310.00
Existing Condition Diagrams (11X17, 1"=40' Scale)	1		2	8	10	4			25	\$ 4,245.00
Proposed Traffic Signal Layout (11X17, 1"=40' Scale)	2	2	2	12	24	6			48	\$ 8,060.00
Proposed Traffic Signal Layout Details and Notes	2			6	22	2			32	\$ 5,170.00
Signing and Pavement Marking Layout	1	1	2	6	18	6			34	\$ 5,580.00
Wheel Chair Ramp Layout	1	1	2	6	18	2			30	\$ 4,940.00
Standard Drawings for Foundations	1		1	6	8				16	\$ 2,745.00
									0	\$ -
<b>Powerline at Sunrise Meadows</b>										
Basis of Estimate			1	2	4	1			8	\$ 1,310.00
Existing Condition Diagrams (11X17, 1"=40' Scale)	1		2	8	10	4			25	\$ 4,245.00
Proposed Traffic Signal Layout (11X17, 1"=40' Scale)	2	2	2	12	24	6			48	\$ 8,060.00
Proposed Traffic Signal Layout Details and Notes	2			6	22	2			32	\$ 5,170.00
Signing and Pavement Marking Layout	1	1	2	6	18	6			34	\$ 5,580.00
Wheel Chair Ramp Layout	1	1	2	6	18	2			30	\$ 4,940.00
Standard Drawings for Foundations	1		1	6	8				16	\$ 2,745.00
									0	\$ -
<b>HOURS SUB-TOTALS</b>	<b>16</b>	<b>9</b>	<b>22</b>	<b>96</b>	<b>210</b>	<b>46</b>	<b>4</b>	<b>0</b>	<b>403</b>	
<b>SUBTOTAL</b>	<b>\$4,400.00</b>	<b>\$2,025.00</b>	<b>\$4,400.00</b>	<b>\$17,760.00</b>	<b>\$30,450.00</b>	<b>\$7,360.00</b>	<b>\$440.00</b>	<b>\$0.00</b>	<b>\$66,835.00</b>	<b>\$66,835.00</b>
<b>Final Design Plans</b>										
<b>Submittals (70%, 95%, 100%)</b>										
Quantity Computations		1	4	6	17				28	\$ 4,600.00
Cost Estimate		1	4	5	8				18	\$ 3,110.00
Standards			1	1	4				6	\$ 965.00
Specifications Table		1	4	7					12	\$ 2,320.00
QA/QC	8	12						2	22	\$ 5,090.00
Prepare Submittals (70/95/100)	1			8	8				17	\$ 2,915.00
<b>HOURS SUB-TOTALS</b>	<b>9</b>	<b>15</b>	<b>13</b>	<b>27</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>103</b>	
<b>SUBTOTAL</b>	<b>\$2,475.00</b>	<b>\$3,375.00</b>	<b>\$2,600.00</b>	<b>\$4,995.00</b>	<b>\$5,365.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$190.00</b>	<b>\$19,000.00</b>	<b>\$19,000.00</b>
<b>SUBTOTAL FINAL DESIGN</b>	<b>25</b>	<b>24</b>	<b>35</b>	<b>123</b>	<b>247</b>	<b>46</b>	<b>4</b>	<b>2</b>	<b>506</b>	
	<b>\$6,875.00</b>	<b>\$5,400.00</b>	<b>\$7,000.00</b>	<b>\$22,755.00</b>	<b>\$35,815.00</b>	<b>\$7,360.00</b>	<b>\$440.00</b>	<b>\$190.00</b>	<b>\$85,835.00</b>	<b>\$85,835.00</b>

FEE SCHEDULE  
(LUMP SUM PAYMENT BASIS)  
Prelim Final Design (BGE)

Fort Bend County 2023 Mobility Bond Program  
Powerline Segment 2  
Project No. 23406  
SUMMARY OF SCOPE - Engineering

SUB PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK
<b>CONTRACT RATE PER HOUR</b>	<b>\$ 275.00</b>	<b>\$ 225.00</b>	<b>\$ 200.00</b>	<b>\$ 185.00</b>	<b>\$ 145.00</b>	<b>\$ 160.00</b>	<b>\$ 110.00</b>	<b>\$ 95.00</b>		
<b>CONTRACT ADMINISTRATION (LUMP SUM PAYMENT BASIS)</b>										
Develop and Maintain Task Schedule	4		4	4					12	\$ 2,640.00
Monthly Conference Calls	12			12					24	\$ 5,520.00
Review Meetings and Documentation (Fort Bend County)(2)	6	3	6	6				4	25	\$ 5,015.00
Review Meetings and Documentation (TxDOT)(2)	6	3	6	6				4	25	\$ 5,015.00
<b>HOURS SUB-TOTALS</b>	<b>28</b>	<b>6</b>	<b>16</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>86</b>	
<b>SUBTOTAL</b>	<b>\$7,700.00</b>	<b>\$1,350.00</b>	<b>\$3,200.00</b>	<b>\$5,180.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$760.00</b>	<b>\$18,190.00</b>	<b>\$18,190.00</b>

<b>TOTAL HOURS</b>	<b>57</b>	<b>34</b>	<b>59</b>	<b>183</b>	<b>325</b>	<b>46</b>	<b>4</b>	<b>14</b>	<b>722</b>	
<b>CONTRACT RATE PER HOUR</b>	<b>\$ 275.00</b>	<b>\$ 225.00</b>	<b>\$ 200.00</b>	<b>\$ 185.00</b>	<b>\$ 145.00</b>	<b>\$ 160.00</b>	<b>\$ 110.00</b>	<b>\$ 95.00</b>		
<b>SUBTOTAL LABOR EXPENSES</b>	<b>\$ 15,675.00</b>	<b>\$ 7,650.00</b>	<b>\$ 11,800.00</b>	<b>\$ 33,855.00</b>	<b>\$ 47,125.00</b>	<b>\$ 7,360.00</b>	<b>\$ 440.00</b>	<b>\$ 1,330.00</b>	<b>\$125,235.00</b>	
<b>DIRECT EXPENSES</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>RATE</b>							<b>TOTAL</b>
MILEAGE	150	mile	\$ 0.670							\$ 100.50
OVERNIGHT MAIL - OVERSIZED BOX	3	each	\$ 35.00							\$ 105.00
TDLR / RAS Review Fee	1	LS	\$ 750.00							\$ 750.00
Utility Record Plan Fees (Private and City)	0	LS	\$ 200.00							\$ -
Utility Pothole (Lv A SUE) - excluded	0	each	\$ 1,500.00							\$ -
Level B SUE - excluded	0	LF	\$ 1.60							\$ -
PHOTOCOPIES B/W (11" X 17")	0	each	\$ 0.20							\$ -
PHOTOCOPIES B/W (8 1/2" X 11")	0	each	\$ 0.10							\$ -
PHOTOCOPIES COLOR (11" X 17")	0	each	\$ 1.25							\$ -
PHOTOCOPIES COLOR (8 1/2" X 11")	0	each	\$ 0.65							\$ -
PLOTS (COLOR ON BOND)	0	per sq. ft.	\$ 1.75							\$ -
<b>SUBTOTAL DIRECT EXPENSES</b>										<b>\$ 955.50</b>
<b>TOTAL</b>										<b>\$126,190.50</b>

# CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.  
 Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

**OFFICE USE ONLY  
 CERTIFICATION OF FILING**

**1 Name of business entity filing form, and the city, state and country of the business entity's place of business.**  
 Entech Civil Engineers, Inc.  
 Houston, TX United States

**Certificate Number:**  
 2025-1342871

**Date Filed:**  
 07/29/2025

**2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.**  
 Fort Bend County

**Date Acknowledged:**  
 08/12/2025

**3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.**

23406  
 Professional engineering services for design and construction services for Powerline Road Segment 2

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

**5 Check only if there is NO Interested Party.**

**6 UNSWORN DECLARATION**

My name is \_\_\_\_\_, and my date of birth is \_\_\_\_\_.

My address is \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.  
(city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in \_\_\_\_\_ County, State of \_\_\_\_\_, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
(month) (year)

\_\_\_\_\_  
 Signature of authorized agent of contracting business entity  
 (Declarant)