**STATE OF TEXAS** §
§
**COUNTY OF FORT BEND** §

**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**

(Skinner Road, Segment 4 – Project No. 23106)

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 Cobb, Fendley & Associates, Inc. ("Engineer"), a Texas corporation. County and Engineer may be referred to individually as a "Party" or collectively as the "Parties."

WHEREAS, Engineer is a professional engineering firm which provides design, consulting and engineering services in the Greater Houston Area; and

WHEREAS, County desires for Engineer to provide professional engineering services for the reconstruction of Skinner Lane to provide 3 lanes of concrete pavement along with sidewalk, curb, gutter, drainage system and all necessary appurtenances along Skinner Lane from Brandt Road to Mason Road, in Precinct 1, under Mobility Bond Project No. 23106; 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 dated February 5, 2025, 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 Seven Hundred Seventy-Three Thousand Four Hundred Seventy and 65/100 Dollars ($773,470.65). 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 Seven Hundred Seventy-Three Thousand Four Hundred Seventy and 65/100 Dollars ($773,470.65). 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 Seven Hundred Seventy-Three Thousand Four Hundred Seventy and

65/100 Dollars ($773,470.65) 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 Seven Hundred Seventy-Three Thousand Four Hundred Seventy and 65/100 Dollars ($773,470.65).

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 EXCERCISES CONTROL. IN ADDITION, SHALL FURTHER 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 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.

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, 4th Floor
Richmond, Texas 77469

**And**

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

**If to Engineer:**
**Cobb, Fendley & Associates, Inc.**
Attn: Brad Matlock
4424 W. Sam Houston Parkway North
Suite 600
Houston, TX 77041

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 ACKNOWLEDEDGED 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. **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

_____
Date

**ATTEST:**

_____
Laura Richard, County Clerk

**COBB, FENDLEY & ASSOCIATES, INC.**

_____
Authorized Agent – Signature

Brad Matlock, P.E.
Authorized Agent- Printed Name

Senior Vice President
Title

3/28/2025
Date

**APPROVED:**

_____
J. Stacy Slawinski, County Engineer

**AUDITOR'S CERTIFICATE**

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

_____
Robert Ed Sturdivant, County Auditor

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# EXHIBIT A

(Engineer's Proposal Follows Behind)

CobbFendley

February 5, 2025
Mr. Stacy Slawinski, P.E.
Fort Bend County Engineer
C/O Lee Shelton, P.E.
KCI Technologies Inc.
15021 Katy Freeway, Suite 200
Houston, Texas 77094

Re: Skinner Lane (Segment 4) from Brandt Road to Mason Road
Mobility Bond Program Project No. 23106x

Subject: Proposal for PER, Final Design & Limited Construction Admin. Services

Dear Mr. Slawinski:

We are pleased to provide you with this proposal to perform professional engineering and surveying services in connection with reconstruction of Skinner Lane (Segment 4) from Brandt Road to Mason Road, in PCT 1, designated as the Fort Bend County Mobility Bond Program Project No. 23106x.

Enclosed please find attachments A-D for Cobb, Fendley & Associates, Inc. (CobbFendley) proposed level of efforts, and direct expense breakdown including detailed scope of services, project schedule, and probable construction cost estimate for completing preliminary engineering, final design, bidding, and limited phase III construction administration services. The proposal also includes scope and associated compensations for additional services to perform the required geotechnical investigation, topographical and abstracting surveys, and subsurface utility engineering (SUE). Additionally, the proposal includes anticipated scope and budget for optional additional services determined to be necessary during the final design phase for completion of the project's construction documents for the above referenced project.

CobbFendley proposed budget is as follows:

**Basic Services (CobbFendley, Prime Consultant)**

| | |
|---|---|
| Phase I – Preliminary Design Services (Lump-Sum) | $ 152,911.79 |
| Phase II – Final Design Services (Lump-Sum) | $ 311,715.96 |
| **Subtotal Phases I & II Basic Services, Prime Fee** | **$ 464,627.75** |
| Phase III – Limited Construction Admin. Phase Services (Time & Material) | $ 50,000.00 |
| **Subtotal Phase III Construction Admin. Services, Prime Fee (T & M)** | **$ 50,000.00** |
| **Subtotal Phases I & II (PER & Final Design) and limited CA, Prime Fee** | **$ 514,627.75** |

**Additional Services**

| | | |
|---|---|---|
| Geotechnical Engineering – Aviles Engineering Corporation (Lump-Sum) | $ | 29,975.00 |
| Geotechnical Subconsultant Coordination, Prime @10% | $ | 2,997.50 |
| Topographic Survey Including Abstracting – REKHA Engineering (Lump-Sum) | $ | 64,270.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 6,427.00 |
| Overall Parcel Map – REKHA Engineering | $ | 14,640.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 1,464.00 |
| Proposed ROW Maps – 2 @ $4,905 Each – REKHA Engineering | $ | 9,810.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 981.00 |
| Level "D" Subsurface Utility Engineering (SUE) (Records Research) | $ | 3,142.00 |
| **Subtotal Additional Services Subconsultants Fee** | **$** | **133,706.50** |

**Optional Additional Services (Anticipated for Budgetary Purposes, If required)**

| | | |
|---|---|---|
| Geotechnical for Detention Site - Aviles Engineering Corporation | $ | 18,199.00 |
| Geotechnical Subconsultant Coordination, Prime @10% | $ | 1,819.90 |
| Additional Topographic Survey for Detention Pond – REKHA Engineering | $ | 3,990.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 399.00 |
| Staking the Proposed ROW for Clearing Contractor – REKHA Engineering | $ | 5,400.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 540.00 |
| Detention & Misc. Design during Design Phases, Prime (budgeted as needed) | $ | 35,000.00 |
| Level "A" Subsurface Utility Engineering (SUE) – 2 Test Holes @ $2,200 Each | $ | 4,400.00 |
| Level "A" SUE @ Wetland Area – 2 Test Holes @ $23,412.50 Each | $ | 46,825.00 |
| Level "B" Subsurface Utility Engineering (SUE) – 1,000 LF @ $1.85/LF/Facility | $ | 1,850.00 |
| Subsurface Utility Engineering (SUE) Right-of-Entry Coordination and Fees | $ | 5,398.00 |
| **Subtotal Optional Additional Services (If required)** | **$** | **123,820.90** |

**Reimbursables & Direct Expenses**

| | | |
|---|---|---|
| Reimbursables & Direct Expenses | $ | 1,315.50 |
| **Subtotal Reimbursables & Direct Expenses, Prime** | **$** | **1,315.50** |

**TOTAL PROFESSIONAL SERVICES, PRIME & SUBCONSULTANTS ..... $ 773,470.65**

We respectfully request a total budget of $773,470.65 for the abovementioned professional services. Detailed scope of services and the level of effort for the basic, additional, and optional services are attached. Also attached are the subconsultant proposals for the geotechnical investigation and surveying services.

Please note that the optional additional services and fees for level A & B SUE as well as geotechnical, topographic survey, ROW mapping, and engineering design associated with a potential detention site and roadway improvements are for budgetary purposes only. Optional additional services will only be performed with prior written authorization by the Fort Bend County Engineer and/or KCI Technology's designated project manager, the Fort Bend County Managing Consultant. We will commence upon receipt of the written notice to proceed for the work. Please call me at your earliest convenience should you have any questions or require additional information.

Sincerely,
COBB, FENDLEY & ASSOCIATES, INC.

Mahmoud Salehi, P.E.
Group Lead | Senior Project Manager

Attachments:
“A” Scope of Services
“B” Level of Efforts
“C” Project Schedule
“D” Probable Construction Cost Estimate

**Attachment "A"**
**Skinner Lane – Segment 4 Reconstruction**
**from Brandt Road to Mason Road**
**Scope of Services**

**Existing Conditions**

The existing Skinner Lane – Segment 4 is approximately 3,100 linear feet (0.59 miles) in length and is a 2-lane asphalt roadway with roadside ditches from Brandt Road to Mason Road. The roadway features a 90-degree bend at its midpoint. The existing right-of-way (ROW) for most of Skinner Lane appears to be 60-ft wide within the project limits.

The following intersections are within the project limits:

- One (1) non-signalized "T" intersection approaching from the west
    - Frost School Lane
- One (1) non-signalized intersection
    - Brandt Road/James Long Parkway
- One (1) signalized intersection
    - Mason Road
- 90-ft wide Max Midstream crude oil pipeline easement crossing Skinner Lane at the Frost School Lane intersection approximately 1,750-ft west of Mason Road.

The posted speed limit is 35 MPH with a 20 MPH school zone along the southern half. There are 10 driveways accessing the roadway primarily comprised of residential homesteads and the Frost Elementary School.

There are several existing wet and dry utilities within the project corridor. The following represent the buried and aerial utilities that are designated by markers or miscellaneous appurtenances:

1. Water main service line along the north ROW line
2. AT&T Fiber Optic buried lines along both ROW lines
3. CenterPoint Electric Power Poles staggered along the north and west ROW lines
4. CenterPoint Gas pipeline along the east ROW line
5. Phonoscope buried cable along the north ROW line

Skinner Lane drains via open ditches on both sides of the roadway to two (2) apparent outfall locations. The ditches along the north and south ROW drain towards the Mason Road storm sewer system. The remainder of the project drains to a residential detention pond at the southwest corner of the Skinner Lane elbow which ultimately outfalls into Jones Creek and the Brazos River.

**Proposed Scope**

The proposed scope is comprised of three (3) phases: Study (PER)/preliminary engineering; final design and bidding phase services; and limited construction administration services. The scope of services will include professional engineering, topographical surveying and ROW mapping, hydrologic analysis and

design, sub-surface utility engineering (SUE), and geotechnical investigation services. The project will involve the reconstruction of the existing roadway to provide 3-lanes of concrete pavement and open ditches, within a proposed 80-ft ROW. The project will also include the construction of a 5-ft sidewalk along the north and east ROW line. The proposed alignment will smooth out the curvature of the roadway, removing the 90-degree bend at the Frost School Lane intersection. The location and size of potential detention site(s) for drainage mitigation is to be determined upon completion of the drainage analysis during the PER/study phase. The project may also include evaluation, upgrade and/or betterment of the existing water line within the project limits.

Final Posted speed will be determined after the completion of the project by conducting speed study analysis followed by issuance of a certified letter indicating the safe posted speed limit.

The following constitute the primary goals of the study phase:

1. Establish a typical cross section and cross sections in non-standard areas
2. Determine drainage system needs (drainage report and/or preliminary roadway drainage design)
3. Positively determine right-of-way acquisition needs
4. Determine potential conflicts with existing facilities
5. Identify critical path items
6. Identify problem areas and potential resolution(s)
7. Determine permit and regulatory requirements
8. Prepare a reasonable construction cost estimate
9. Identify impacts to pipelines by locating the drainage high point at pipeline intersections.
10. Prepare 30 percent plan set, consisting of all existing features (seen and unseen) shown in plan and profile, and proposed improvements in plan only with minor annotation

**The Preliminary Engineering Report (PER)/Study Phase**

A Preliminary Engineering Report (PER) will be prepared for preliminary design, and the purpose of the report is to document the ten goals stated above. A digital copy in Adobe Acrobat format (PDF) of the PER shall be submitted to the Program Manager (KCI Technologies Inc). Upon preliminary review and approval of the PER, CobbFendley and Program Manager will conduct a review meeting to include key Fort Bend County staff. It is intended that all approvals or change requirements are given at this meeting, which shall be reflected in the final PER.

Because this project requires a significant change to the roadway alignment, an alignment meeting with Fort Bend County staff will be held prior to the PER review meeting. CobbFendley shall conduct the meeting and shall discuss the location of the proposed alignment as well as all pertinent items that have impacts on the alignment. CobbFendley will also bring a roll plot exhibit to the meeting. The exhibit will include the ultimate configuration (dashed) to confirm that it fits within the proposed ROW.

The Preliminary Engineering Report should include, at a minimum, the following sections:

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. FEMA Flood Insurance Rate Maps (FIRM)
5. Preliminary Drainage Area Map and calculations taking into account the ultimate roadway configuration
6. Sight Triangle Exhibit
7. Right-of-Way Exhibit
8. Engineer's Opinion of Probable Construction Cost Estimate
9. 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.
10. 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)
11. Reports to be included are:
    a. Drainage Study taking into account the ultimate roadway configuration (provided by Gauge Engineering)
    b. Geotechnical Report
    c. Environmental Report (provided by Fort Bend County)

Upon approval of the final PER report and associated documents, CobbFendley will draft a separate proposal with associated compensation for any further requirements or additional scope of work requested by Fort Bend County.

**Surveying and ROW Mapping**

1. Topographic survey

   Topographic survey will be performed and completed during preliminary design. Horizontal and Vertical Control and Topographical Surveying and Roadway Cross-Sections will include but are not limited to the following:

   a. Horizontal and vertical project control shall be established relative to the North American Datum of 1983 (NAD 83, 2001 adjustment) and the North American Vertical Datum of 1988 (NAVD 88, 2001 adjustment/TSARP datum).

   b. Temporary benchmarks and baseline controls will be set, both with 1,000-foot maximum spacing between points.

   c. During topographic survey, found property corners will be documented to determine the approximate location and width of the right-of-way. Visible property delineators such as fence corners and other existing monumentations will also be tied in order to evaluate alignment alternatives within project limits.

   d. The Topographical survey shall be along Skinner Lane from Brandt Road to Mason Road for approximately 3,100 feet. The topographical survey will also extend along all major and minor intersecting streets as noted below:

      i Brandt Road: 100 feet each way

      ii Frost School Lane: 200 feet to the west, up to the existing entry gate

      iii Mason Road: Survey along Skinner Lane up to the west ROW line.

   e. Roadway cross sections will be obtained at 100 ft. intervals. Cross-sections shall extend 20 feet beyond the existing rights-of-way lines but not behind platted subdivision fencing.

   f. A topographic survey of the potential future detention site will be performed with written approval by the client.

   g. Topographic survey of any/all existing structures in clear view and within 100 feet of the existing right-of-way.

   h. Topographic survey will identify locations and elevations of physical features to include buildings, fences, walls, trees, sidewalks, driveways and driveway curbs, power poles, light poles, water meters, water wells, ponds, sprinklers, off-site drainpipes as applicable.

   i. Topographic survey will locate ornamental trees or landscape trees with a diameter of 4” and larger. Wooded/brushed areas shall be limited to an outlined area only. No individual trees shall be located on natural vegetation areas.

   j. Topographic survey shall locate soil borings.

   k. The survey data collection and survey base map will include horizontal and vertical location of existing utilities within, crossing and adjoining project limits. Utilities will be located and tied based on visual evidence and utilities based on maps and plans provided by the utility

owners and marked by “One Call” within the project’s limits. Pipe flow line elevations, size, material and directions of all sanitary sewer lines, storm sewer lines, and driveway culverts. Top of rim or top of grate flow line elevations shall be recorded on all inlets, manholes, and drainage structures.

l. Surveyor shall attend one field topo verification meeting to visibly check that all topo items are currently located as per the field notes.

m. An ASCII point file and a 3D topographical survey base map including a digital terrain model (DTM) and triangular irregular network (TIN) will be created for the existing roadway surface features.

n. The survey line work and surface TIN shall be provided to the Client in Microstation/Geopak CADD platform.

2. Right of Way Mapping

Existing Right-of-Way Maps

The existing ROW maps will be performed upon completion during preliminary design and will include the following tasks:

a. Perform abstract survey; obtain deeds of records, and plats for Skinner Lane right-of way, streets intersecting Skinner Lane and tracts of land adjoining Skinner Lane.

b. Establish the existing right-of-way of Skinner Lane and intersecting streets.

c. Prepare existing Right-of Way Map of the project.

d. Prepare Survey Control Sheet(s) for the project.

e. Establish a recoverable existing and proposed monumentation to include setting iron rods for ROW parcels and cutback corners along Skinner Lane and at intersecting streets.

Proposed ROW Maps/ Meets & Bounds and Parcel Sketches

Once right-of-way needs have been determined and approved by the County. The Engineer shall provide services including surveying in accordance with Category IA Condition II Land Title Survey must be performed to produce parcel map and metes-and-bounds descriptions for any proposed parcel to be acquired in the project. These documents will be submitted separately from other design documents and will be paid for on a per-parcel basis. An overall parcel map showing the existing and proposed right-of-way adjoiner tracts with ownership including abstract information and stationing will be created. TCE limits will also be identified for the reconstruction of private driveways extending beyond right of way limits.

**Drainage Analysis**

The drainage study report will be prepared by Gauge Engineering to document the existing conditions and provide basic design considerations along with estimated construction cost of drainage related items.

The following drainage related tasks will be performed by CobbFendley:

1. We will request, obtain, review, and evaluate available data for the study area including Fort Bend County and FBCDD Drainage Study(s), as-built plans, the latest version of the reference standards and criteria and other information.

a. Obtain, review, and evaluate available existing public and private utility information relevant to the characteristic of the existing storm sewer systems and outfall drainage channels/systems for the study area.

2. We will perform field visits to the study area and vicinity to photograph and adequately document existing conditions and special concerns as necessary.

    a. Research and review the reported findings of all available, previous studies related to the study area and vicinity.

    b. Gather existing roadside ditch, culvert, and overland flow information using LiDAR and collected survey data. The survey shall include the location of all drainage appurtenances (i.e., ditches, culverts, equalizers, inlets, manholes, and detention facilities) to be adequately identified to display their respective geometric positions within the right-of-way. In addition, the identification of high points in roadways and ditches shall be determined from the best management practices during the site visits.

3. Perform Existing Condition Analysis:

    a. Analyze LiDAR Data to determine existing condition overland sheet flow patterns

    b. Identify and locate existing condition outfall locations and drainage systems

    c. Analyze existing terrain for overland flow paths

    d. Determine Existing Condition drainage areas, create drainage area maps and compare to Fort Bend County Masterplan Drainage areas - modify where necessary

    e. Perform existing condition hydrologic calculations using the Rational Method based upon Fort Bend County Drainage District ("FBCDD") drainage criteria for the 2-, 10-, and 100-year storm events.

4. Perform Proposed Condition Analysis and coordinate with the Fort Bend County Drainage District in order to obtain their approval and acceptance of the project:

    a. Determine proposed condition drainage areas and create drainage area map

    b. Perform proposed condition hydrologic calculations per FBCDD drainage criteria for the 2-, 10-, and 100-year storm events.

    c. Determine necessary sizes and geometries for the roadside ditches, driveway culverts, and limited storm sewer within the corridor (where applicable) required to convey flow within the ROW utilizing static hydraulic calculations

    d. Increase estimated ditch sizes to provide additional conveyance capacity and volume to offset impervious cover and reduced RSD storage volume (where possible)

**Utilities**

CobbFendley will research to determine the existence and location of underground utilities (pipelines, duct banks, etc.). Any level A subsurface utility engineering (SUE) (exposing or probing) should be at the expense of the utility company when the utility is located in Fort Bend County's right-of-way or easement. Utility company signatures will not be required on completed drawings. CobbFendley's overall responsibility as it pertains to utilities is as follows:

1. Perform records research and field visits to determine the presence of underground or overhead private or public utilities during the Preliminary Design phase. A reasonable amount of research shall be conducted, including but not limited to contact with companies identified on aboveground markers, Railroad Commission website research, and map requests from prominent companies (i.e. CenterPoint Energy, AT&T, etc.).
2. Send records requests to utility companies and obtain I.D. numbers (CenterPoint and AT&T).
3. Depict utilities to a reasonable degree of accuracy on the plan and profile drawings.
4. Prepare a conflict table during the Preliminary Design phase to highlight conflicts between existing utilities and proposed improvements, to be updated during the Final Design phase as required. Refer to Appendix B, Fort Bend County Utility Conflict Table template.

**Subsurface Utility Engineering (SUE)**

CobbFendley will perform the SUE work requested for this project in general accordance with the recommended practices and procedures described in ASCE Standard ASCE/UESI/CI 38-22 (Standard Guideline for Investigating and Documenting Existing Utilities). CobbFendley will perform the following SUE quality levels:

*SUE QL D:*

CobbFendley will perform records research within the Skinner Lane project corridor. CobbFendley will provide all collected record drawings and a Utility Contact List to the Client. The SUE CAD technician will generate a SUE Existing Utility Base AutoCAD file in grid coordinates showing the QL D record drawing data.

SUE QL B:

Subsurface detection methods (Electromagnetic Locators) will be utilized to tone the following pipelines: 6" Energy Transfer pipeline and 14" Max Midstream pipeline. Pipeline information is based on the Texas Railroad Commission. The designated pipelines in the field will be identified with color coded paint marks and/or pin flags per APWA standards. All paint marks and/or flagging placed by CobbFendley is considered temporary and will not be maintained after the day of placement. CobbFendley's designation marks will be surveyed by CobbFendley's survey crew.

CobbFendley will require the Client to provide survey controls for surveying designation marks effort and survey topographic file to be referenced into the SUE Existing Utility Base Map to provide confirmation of layout and orientation of all collected SUE utility data. Any fees associated with right-of-entry will be expensed. CobbFendley will coordinate right-of-entry to private property to designate pipelines. The SUE CAD technician will generate a SUE Existing Utility Base AutoCAD file in grid coordinates showing all QL B designated data collected in the field.

SUE QL A:

Non-destructive vacuum excavation equipment will be utilized to perform up to four test hole excavations. Two of the four test holes are proposed on the 14" Max Midstream pipeline. Matting will be required to access the 14" Max Midstream test hole locations and to avoid getting the vacuum excavation truck stuck on the ground of the wetland area.

Test holes are not proposed on utilities deeper than 15 ft. The non-destructive test hole excavations will obtain top of pipe elevations and will include backfill of the hole. CobbFendley will place 811 One Call tickets prior to all excavations and obtain/review all available record drawings to plan efficient field

excavation operations. CobbFendley will coordinate right-of-entry to private property to perform test hole excavations. Any fees associated with right-of-entry will be expensed. CobbFendley's test holes will be surveyed by CobbFendley's survey crew. This work includes a CAD technician generating the signed and sealed test hole reports and updating the SUE Existing Utility Base AutoCAD file with the location of each QL A test hole performed. All test hole work will be performed in accordance with CobbFendley's standard Quality Assurance/Quality Control procedures.

The deliverables will be an updated SUE Existing Utility Base file and 4 Signed & Sealed Test Hole Reports for each test hole performed.

**Geotechnical Report**

1. Field Investigation

   In accordance with Chapter 8 of the 2022 Fort Bend County Engineering Department Engineering Design Manual, eight (8) soil borings will be drilled along the proposed Skinner Lane alignment (six (6) 10-foot borings for the roadway and two (2) 40-foot borings for the culvert). Additionally, two (2) 20-foot borings will be drilled for a potential detention site, pending prior authorization. One (1) 30-foot piezometer will be installed to monitor site groundwater levels at the proposed culvert crossing and one (1) piezometer to 15 feet will be installed to monitor site groundwater levels at the future detention pond. The total drilling footage for the main scope is 140 feet and the footage for the optional additional scope is 40 feet.

   Soil samples will be collected continuously from the ground surface to a depth of 20 feet, and then at 5-foot intervals thereafter to the boring termination depths. Undisturbed samples will be obtained of cohesive soils by pushing a Shelby tube (ASTM D-1587). Standard Penetration Test samples will be obtained of granular soils (ASTM D-1586). Representative portions of all soil samples will be sealed, packaged, and transported to our laboratory. We will note any visual evidence or odor indicating hazardous materials if encountered in the samples. Water level readings will be noted during drilling and obtained upon completion of drilling. Borings B-4 and B-10 will be converted to piezometers after completion of drilling. Piezometers will be monitored after 24 hours and after approximately 30 days, after which they will be plugged and abandoned. Boreholes located on existing pavement will be grouted with cement-bentonite upon completion of drilling, while borings located off pavement will be backfilled with bentonite chips. Existing pavement (if any) will be patched with cold-placed asphalt. In accordance with FBCED requirements, boring locations will be surveyed after drilling is completed.

2. Laboratory Testing

   Laboratory testing may consist of moisture contents, Atterberg limits, percentage passing No. 200 sieve, sieve analysis, and unconfined compression, and unconsolidated-undrained (UU) triaxial tests depending on the soil types encountered. If and when authorized, we will also perform crumb dispersion, double hydrometer dispersion, and one consolidated-undrained (CU) triaxial tests for the detention pond analyses. As part of our services, we will perform a preliminary fault study, which includes reviewing in-house published fault maps to identify documented faults crossing the alignment, and we will also visit the site to observe fault-related features that are evident along the alignment and immediate vicinity.

3. Engineering & Project Delivery

   Results of our field and laboratory programs will be evaluated by a professional engineer. The engineer will develop a geotechnical site characterization, perform the engineering calculations

necessary to evaluate foundation alternatives, and develop appropriate geotechnical engineering design criteria for earth-related phases of the project.

The geotechnical engineering report will provide the following:

- Boring logs with subsurface soils and ground water depth encountered in the borings
- Preliminary fault study
- Recommendations for pavement thickness design of concrete pavement, embankment, and subgrade preparation
- Recommendations for culvert crossing, including allowable bearing capacity, subgrade preparation, cantilever walls, and backfill
- Construction and groundwater control guidelines for the proposed improvements

If the detention pond is included in the scope, a separate geotechnical engineering report will be created to include the following:

- Boring logs with subsurface soils and ground water depth encountered in the borings
- Recommendations for detention pond, including excavation, slope stability analyses, liner system (if needed), and evaluation if excavated soil can be reused as select fill
- Construction and groundwater control guidelines for the proposed improvements

**Environmental Site Assessment (ESA)**

The consultant that reports directly to the county will be responsible for the identification and assessment of any environmental issues associated with the project. CobbFendley will coordinate project specifics with the County designated environmental consultant.

**Design Reviews/Permitting/Coordination**

CobbFendley will coordinate with the following entities/agencies as needed throughout the project design cycle for obtaining agency plan approval for construction permitting process:

- Pecan Grove MUD Districts for subdivision plats, utility layouts and approval of modifications or betterments, if applicable.
- Fort Bend County Engineering for approval of the design plans and construction administration
- Fort Bend County Drainage District for approval of the drainage study report and drainage design plans
- Potential private utility impacts as identified with utility owners
- HOA Management for surrounding neighborhoods

**Traffic Engineering**

Traffic Control Plans - Detailed traffic control plans (TCP) will be prepared based on the approach and the number of construction phases decided in the conceptual TCP as part of the study. TCP will be designed according to the latest edition of The Texas Manual on Uniform Traffic Control Devices.

Traffic Signal Warrant Analysis and Traffic Signal Design will not be performed under the scope of work for this project.

**SWPPP**

Storm water pollution prevention plans (SWPPP) will be prepared during the design phase and included in the construction documents and project manual based on FBC and/or HCFCD criteria.

**Schedule**

CobbFendley anticipates the duration for completion and delivery of phase I & II of the project as follow:

Phase I - Preliminary Engineering Report (study) to be completed in 290 calendar days from the notice to proceed date and,

Phase II – Final Design and construction documents to be delivered in 290 days from approval of the PER and final design NTP.

It must be noted that abovementioned durations for document delivery include the Program Manager (KCI Technologies Inc) and Fort Bend County's intermediate reviews in addition to an acceptance of the PER by the Fort Bend County Commissioner's Court.

**Compensations**

It is mutually agreed that the fee for the preliminary and final design efforts will be paid in lump-sum basis to be billed monthly on a percent complete basis by respective tasks performed. The invoices to the County will also accompany itemized major tasks for preliminary design, final design, survey, geotechnical, etc. performed within each billing cycle.

**Design Criteria**

Applicable design criteria include, in order of priority, (1) Fort Bend County Engineering Design Manual (March 2022 Edition) and construction standards (2) Fort Bend County – Interim Atlas 14 Drainage Criteria Manual (revised September 2021), (3) Harris County Design Guidelines (1988), (4) The City of Houston Infrastructure Design Manual (IDM) (November 2023), (5) applicable Texas Department of Transportation design criteria.

Final Design Deliverables (70%, 95%, and Final Submittal)

CobbFendley will deliver 70%, 95%, 100% completed plans, and the final bid ready submittal at the scheduled milestones.

The **70%** submittal shall include the following:

1. 30 percent comments addressed
2. Cover Sheet with a 70% interim seal
3. Index of Drawings
4. General notes
5. Typical and Non-standard Cross Sections
6. Project Layout Sheet
7. Survey Control
8. Right-of-way (Existing and Proposed)

9. Horizontal Alignment Data
10. Plan and Profile Sheets (detailed callouts not required at 70 percent)
11. Drainage Area Map with Hydraulic Calculations
12. Traffic Control Plan
13. Signing and Striping Plan
14. Storm Water Pollution Prevention Plan
15. Cross Sections (100 foot intervals with earthwork calculations)
16. Specification Table of Contents (Use Harris 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.
17. Cost Estimate (PDF and Excel format)
18. 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
19. KMZ file of current design with proposed right-of-way
20. 70 Percent Review Checklist.
21. Regulatory permitting, if applicable
22. Public and private utility table, submitted separately for review with the following:
    a. Updated utility table identifying utilities in ROW and conflicts
    b. Private utilities including CenterPoint, AT&T and pipelines
    c. Public utilities including Pecan Grove MUD

The **95%** submittal shall include the following:

1. A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager.
2. The 95 percent submittal should be considered complete with 95 percent interim seal, and shall include all of the 70 percent requirements plus the following:
    a. Verify earthwork quantities with cross sections at 100-foot intervals.
    b. Standard construction details.
    c. Project manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
    d. KMZ file of current design with proposed right-of-way.
    e. Responses to 70 percent comments
    f. 95 Percent Review Checklist

The **100%** submittal will include the following deliverables:

1. A digital copy in Adobe Acrobat format (PDF) of the drawings (sealed and signed).

2. The 100 percent submittal should be considered ready for project advertisement and should include the following:
    a. Project manual
    b. Construction cost estimate
    c. KMZ file of current design with proposed right-of-way.
    d. Responses to 95 percent comments
    e. Recommended maximum number of calendar days for construction

**Bidding and Limited Construction Administration Phase Services**

Upon completion of final design services, Fort Bend County will determine an advertisement and bid opening schedule. All administrative project manual documents (cover page, Notice to Bidders, etc.) will be prepared by Fort Bend County Purchasing Department and provided to the Program Manager and CobbFendley in PDF format.

A. CobbFendley will prepare a single project manual file in PDF format, consisting of:
    1. The bid form (prepared by CobbFendley)
    2. A sealed and signed specification table of contents (prepared by CobbFendley)
    3. Applicable specifications and other design documents (prepared by CobbFendley)

B. CobbFendley will also prepare the bid form in Excel format. The file should have all cells locked except for the unit pricing. CobbFendley is to ensure that formulas are provided so that the spreadsheet will calculate the totals for the vendors.

C. The single project file in PDF format, the bid form in Excel format and one drawing plan set (including signed cover sheet) will be sent to the Program Manager. Printed documents are not required. Purchasing will draft and include the front-end documents in the bid set and upload all the documents to the County's website.

D. CobbFendley will attend a pre-bid meeting at the Fort Bend County Purchasing Office. It is not necessary to prepare for the meeting, other than to be able to briefly describe the project and answer questions.

E. The Purchasing Agent will forward bidder questions to the Program Manager/CobbFendley. Answers to questions, as well as any other required changes, will be included in an addendum, prepared by CobbFendley if necessary. The Purchasing Agent will distribute the addendum.

F. After the bid, the Program Manager will prepare a bid tabulation and provide a copy to CobbFendley for filing. at the pre-construction meeting.

**Construction Phase Services**

A. CobbFendley will attend a pre-construction meeting with Fort Bend County staff, Program Manager, Construction Manager, general contractor, and construction materials testing contractor. Prior to the meeting, the Program Manager will inform CobbFendley of how many drawing plan sets and project manuals are required, and CobbFendley will provide these documents at the pre-construction meeting.

B. CobbFendley will be responsible for reviewing contractor submittals and responding to Requests for Information.

C. Field visits and progress meetings will not be required unless requested by Fort Bend County.

D. CobbFendley will participate in a substantial completion walkthrough.

E. After project completion, CobbFendley will prepare record drawings based on contractor as-built markups. The sheets that have deviations from the original plans should have clouds around the changes and should be signed and dated by the Engineer. All sheets should be stamped Record Drawings, including the cover sheet. The cover sheet should be signed, sealed, dated and include the following statement: "This project was constructed in general conformance with the plans, and elevations on these drawings represent what was constructed within engineering tolerances." CobbFendley is to deliver to Fort Bend County one set of the record drawings in pdf format on a CD/DVD with each sheet stamped “Record Drawings.” The CD/DVD shall also include electronic files (AutoCAD or Microstation) as well as a KMZ file showing the existing/proposed right-of-way and proposed improvements. The information contained on this CD/DVD shall also be uploaded to the appropriate folder within Masterworks.

It is our mutual understanding that the construction phase services will be paid on a time-and-materials basis. The not-to-exceed fee for these services will be determined by the County and/or the Program Manager and CobbFendley. The construction phase services will be performed and continued with prior Fort Bend County authorization. Monthly billing will include a breakdown of hours spent by personnel in the various employee categories, at billing rates agreed to by the County and the design consultant. Reimbursable expenses, such as scanning and reproduction, will be billed at actual cost (no markup).

**Fee Summary**
**Fort Bend County Mobility Program**
**Skinner Lane (Segment 4) from Brandt Road to Mason Road**
**Fort Bend County Project No. 23106x**

Sponsor: Fort Bend County
Description: Reconstruct existing 2-lane asphalt into 3-lane concrete w/ 2' shoulders and open ditches inside 80' ROW. Includes flattening curve radii and sidewalk on 1 side, if possible.
Date: 6/3/2024
Construction Cost Estimate: $4,193,000

| | | |
|---|---|---|
| **Basic Services** | | |
| Phase I PER | $ | 152,911.79 |
| Phase II Final Design (including Bidding) | $ | 311,715.96 |
| Subtotal Phases I & II (PER, Final Design & Bidding), Prime Consultant | $ | 464,627.75 |
| | | |
| Phases III limited CA Services (Time & Material)* | $ | 50,000.00 |
| Subtotal Phases III limited CA, Prime Consultant | $ | 50,000.00 |
| ** As instructed by the County $50K (Budgeted T&M)* | | |
| | | |
| **Subtotal Phases I & II (PER & Final Design) and Limited CA** | **$** | **514,627.75** |
| | | |
| **Additional Services** | | |
| Geotechnical Engineering - Aviles Engineering Corporation | $ | 29,975.00 |
| Geotechnical Subconsultant Coordination, Prime @ 10% | $ | 2,997.50 |
| Topographic Survey Including Abstracting & Existing ROW Envelope - REKHA Engineering | $ | 64,270.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 6,427.00 |
| Overall Parcel Map - REKHA Engineering | $ | 14,640.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 1,464.00 |
| Proposed ROW Maps - 2 @ $4,905/Each - REKHA Engineering | $ | 9,810.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 981.00 |
| Level "D" Subsurface Utility Engineering (SUE) (Records Research) | $ | 3,142.00 |
| **Subtotal Additional Services** | **$** | **133,706.50** |
| | | |
| **Optional Additional Services (Budgeted as Needed)** | | |
| Geotechnical for Detention Site - Aviles Engineering Corporation | $ | 18,199.00 |
| Geotechnical Subconsultant Coordination, Prime @10% | $ | 1,819.90 |
| Additional Topographic Surveying for Detention Pond - REKHA Engineering | $ | 3,990.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 399.00 |
| Staking the Proposed ROW for Clearing Contractor - REKHA Engineering | $ | 5,400.00 |
| Survey Subconsultant Coordination, Prime @ 10% | $ | 540.00 |
| Detention & Miscellaneous Design During Design Phase Services | $ | 35,000.00 |
| Level "A" Subsurface Utility Engineering (SUE) - 2 Test Holes @ $2,200/pothole | $ | 4,400.00 |
| Level "A" Subsurface Utility Engineering (SUE) @ Wetland Area - 2 Test Holes @ $23,412.50/pothole | $ | 46,825.00 |
| Level "B" Subsurface Utility Engineering (SUE) - 1,000 LF @ $1.85/LF/Facility | $ | 1,850.00 |
| Subsurface Utility Engineering (SUE) Right-of-Entry Coordination and Fees | $ | 5,398.00 |
| **Subtotal Optional Additional Services (If Required)** | **$** | **123,820.90** |
| | | |
| **Reimbursables** | | |
| Reimbursable Expenses | $ | 1,315.50 |
| **Subtotal Reimbursable Expenses, Prime** | **$** | **1,315.50** |
| | | |
| **GRAND TOTAL PROFESSIONAL SERVICES, PRIME & SUBCONSULTANTS** | **$** | **773,470.65** |

**Cobb Fendley Fee Summary**

**Fort Bend County Mobility Program**

**Skinner Lane (Segment 4) from Brandt Road to Mason Road**

Sponsor: Fort Bend County

Date: 6/3/2024

| Classification | Hours | Rate | Labor Cost |
|---|---|---|---|
| Principal | 40 | $ 113.33 | $ 4,533.33 |
| Senior Engineer IV | 108 | $ 108.00 | $ 11,664.00 |
| Senior Engineer II | 84 | $ 94.67 | $ 7,952.00 |
| Project Manager III | 322 | $ 94.67 | $ 30,482.67 |
| Engineer III | 265 | $ 68.33 | $ 18,108.33 |
| Senior Technician III | 419 | $ 67.33 | $ 28,212.67 |
| Sr. Project Utility Coordinator | 20 | $ 56.67 | $ 1,133.33 |
| Engineer I | 457 | $ 50.67 | $ 23,154.67 |
| Technician III | 396 | $ 44.67 | $ 17,688.00 |
| Administrative | 32 | $ 42.67 | $ 1,365.33 |
| Total Labor | 2,143 | | $ 144,294.33 |
| OVERHEAD | 180.00% | | $ 259,729.80 |
| OPERATING MARGIN | 15% | | $ 60,603.62 |
| **SUBTOTAL CFA BASIC SERVICES PHASES I&II** | | | **$ 464,627.75** |

| Classification | Hours | Rate | Labor Cost |
|---|---|---|---|
| Principal | 12 | $ 113.33 | $ 1,360.00 |
| Senior Engineer IV | 40 | $ 108.00 | $ 4,341.60 |
| Senior Engineer II | 31 | $ 94.67 | $ 2,934.67 |
| Project Manager III | 122 | $ 94.67 | $ 11,530.40 |
| Engineer III | 67 | $ 68.33 | $ 4,564.67 |
| Senior Technician III | 96 | $ 67.33 | $ 6,464.00 |
| Sr. Project Utility Coordinator | 20 | $ 56.67 | $ 1,133.33 |
| Engineer I | 192 | $ 50.67 | $ 9,738.13 |
| Technician III | 108 | $ 44.67 | $ 4,824.00 |
| Administrative | 14 | $ 42.67 | $ 597.33 |
| Total Labor | 702 | | $ 47,488.13 |
| OVERHEAD | 180.00% | | $ 85,478.64 |
| OPERATING MARGIN | 15% | | $ 19,945.02 |
| **SUBTOTAL CFA PHASE I PER** | | | **$152,911.79** |

**FINAL DESIGN SERVICES (PHASE II) INCLUDING BIDDING**

| Classification | Hours | Rate | Labor Cost |
|---|---|---|---|
| Principal | 28 | $ 113.33 | $ 3,173.33 |
| Senior Engineer IV | 68 | $ 108.00 | $ 7,322.40 |
| Senior Engineer II | 53 | $ 94.67 | $ 5,017.33 |
| Project Manager III | 200 | $ 94.67 | $ 18,952.27 |
| Engineer III | 198 | $ 68.33 | $ 13,543.67 |
| Senior Technician III | 323 | $ 67.33 | $ 21,748.67 |
| Sr. Project Utility Coordinator | 0 | $ 56.67 | $ - |
| Engineer I | 265 | $ 50.67 | $ 13,416.53 |
| Technician III | 288 | $ 44.67 | $ 12,864.00 |
| Administrative | 18 | $ 42.67 | $ 768.00 |
| Total Labor | 1,441 | | $ 96,806.20 |
| OVERHEAD | 180.00% | | $ 174,251.16 |
| OPERATING MARGIN | 15% | | $ 40,658.60 |
| **SUBTOTAL CFA PHASE II DESIGN SERVICES** | | | **$311,715.96** |

## Fort Bend County Mobility Program

Fort Bend County Project No. 23106x

Sponsor: Fort Bend County

Skinner Lane (Segment 4) from Brandt Road to Mason Road

Consultant: Cobb, Fendley & Associates, Inc.

**Manhour Estimate**

| Task | Principal | Senior Engineer IV | Senior Engineer II | Project Manager III | Engineer III | Senior Technician III | Sr. Project Utility Coordinator | Engineer I | Technician III | Administrative | Total Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Management** | | | | | | | | | | | |
| *Project kick-off meeting (1)* | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| *Attend status meetings (36)* | 0 | 8 | 2 | 18 | 8 | 0 | 0 | 8 | 0 | 0 | 44 |
| *Prepare invoice (monthly) (18)* | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 9 | 18 |
| *Project coordination (KCI, FBC Eng., FBCDD, Subs, Pecan Grove MUD, City of Richmond ETJ)* | 0 | 16 | 11 | 90 | 16 | 0 | 0 | 8 | 0 | 1 | 142 |
| Total Project Management* | 0 | 26 | 15 | 119 | 24 | 0 | 0 | 16 | 0 | 10 | 210 |
| **** THE PROJECT MANAGEMENT HOURS ARE DISTRIBUTED AT 20% TOWARDS EACH SUBMITTAL/PHASES*** | | | | | | | | | | | |
| **PRELIMINARY ENGINEERING REPORT - PER (30%)** | | | | | | | | | | | |
| ***Drainage - Existing Condition Analysis*** | | | | | | | | | | | |
| *Meeting/Coordination with Gauge Engineering* | 0 | 8 | 0 | 4 | 0 | 0 | 0 | 8 | 0 | 0 | 20 |
| *Analyze LiDAR Data to determine existing condition overland sheet flow patterns* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 9 |
| *Identify and locate existing condition outfall locations and drainage systems* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| *Analyze existing terrain for overland flowpaths* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 5 |
| *Determine Existing Condition drainage areas and create drainage area map* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 9 |
| *Perform existing condition hydrologic calculations* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 9 |
| ***Drainage - Proposed Condition Analysis*** | | | | | | | | | | | |
| *Meeting/Coordination with Gauge Engineering* | 0 | 8 | 0 | 4 | 0 | 0 | 0 | 8 | 0 | 0 | 20 |
| *Perform proposed condition hydrologic calculations* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 9 |
| *Create alternatives for proposed condition drainage systems to convey design storm using FBCDD drainage criteria* | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 17 |
| ***Traffic Engineering*** | | | | | | | | | | | |
| *Preliminary TCP phasing and construction sequencing* | 0 | 0 | 4 | 4 | 8 | 8 | 0 | 8 | 16 | 0 | 48 |
| | | | | | | | | | | | |
| *Data collection* | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 8 | 0 | 0 | 12 |
| *Conduct field visits* | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 8 | 0 | 0 | 16 |
| *Typical sections* | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 4 | 8 | 0 | 16 |
| *Horz/Vert alignments* | 0 | 4 | 0 | 4 | 8 | 16 | 0 | 8 | 8 | 0 | 48 |
| *Create design base files* | 0 | 0 | 0 | 4 | 0 | 8 | 0 | 24 | 8 | 0 | 44 |
| *Public & Private Utility coordination (utility map and record drawing requests and plan updates)* | 0 | 0 | 0 | 2 | 4 | 0 | 12 | 8 | 8 | 0 | 34 |
| *Water and Wastewater analysis for conflicts* | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 4 | 0 | 0 | 9 |
| *Water Line Relocation Preliminary Design* | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 4 | 0 | 10 |
| *Wastewater Line Relocation Preliminary Design* | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 4 | 0 | 10 |
| *Preliminary plan & profiles (7 sheets)* | 0 | 0 | 0 | 4 | 8 | 8 | 0 | 4 | 16 | 0 | 40 |
| *Schematic Layout/ 30% Plan production* | 0 | 0 | 0 | 2 | 2 | 8 | 0 | 0 | 4 | 0 | 16 |
| *Cross sections to check the pavement horizontal, drainage, and cut & fill quantities* | 0 | 0 | 0 | 4 | 4 | 16 | 0 | 0 | 16 | 0 | 40 |
| *Utility Conflict Table* | 0 | 0 | 0 | 4 | 8 | 0 | 0 | 12 | 0 | 0 | 24 |
| *Quantity Take-Off* | 0 | 0 | 0 | 1 | 0 | 8 | 8 | 8 | 0 | 0 | 25 |
| *Opinion of Probable Construction Cost* | 0 | 0 | 2 | 2 | 4 | 0 | 0 | 4 | 0 | 0 | 12 |
| *Compile the preliminary engineering report* | 0 | 4 | 4 | 24 | 8 | 0 | 0 | 0 | 0 | 8 | 48 |
| *PER Exhibits* | 0 | 0 | 0 | 4 | 0 | 16 | 0 | 8 | 16 | 0 | 44 |
| *QA/QC* | 8 | 0 | 4 | 8 | 0 | 0 | 0 | 4 | 0 | 0 | 24 |
| *PowerPoint Presentation of the PER Report* | 4 | 4 | 8 | 8 | 4 | 0 | 0 | 8 | 0 | 4 | 40 |
| Subtotal PER/30% Submittal | 12 | 40 | 31 | 122 | 67 | 96 | 20 | 192 | 108 | 14 | 660 |

## Fort Bend County Mobility Program

Fort Bend County Project No. 23106x

Sponsor: Fort Bend County

Skinner Lane (Segment 4) from Brandt Road to Mason Road

Consultant: Cobb, Fendley & Associates, Inc.

| **Final Design - 70% submittal** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Refine horz/vert alignments* | *0* | *2* | *0* | *2* | *4* | *8* | *0* | *8* | *0* | *0* | *24* |
| *Utility adjustment and relocation* | *0* | *0* | *0* | *4* | *8* | *16* | *0* | *8* | *8* | *0* | *44* |
| *Cover sheet/Index Sheet (2 Sheets)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *2* | *4* | *0* | *6* |
| *General notes sheets (2 Sheets)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *4* | *0* | *0* | *4* |
| *Horizontal Alignment Data Sheet* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| *Typical sections (1 Sheets)* | *0* | *0* | *0* | *1* | *0* | *1* | *0* | *0* | *4* | *0* | *6* |
| *Layout sheet (2 Sheets)* | *0* | *0* | *0* | *0* | *0* | *4* | *0* | *0* | *4* | *0* | *8* |
| *Drainage design, Drainage Area Map* | *0* | *2* | *0* | *2* | *4* | *8* | *0* | *8* | *8* | *0* | *32* |
| *Plan & Profiles Sheets (Roadway) (7 Sheets)* | *0* | *0* | *0* | *8* | *16* | *32* | *0* | *24* | *24* | *0* | *104* |
| *Plan & Profiles Sheets (Intersections) (3 Sheets)* | *0* | *0* | *0* | *2* | *8* | *8* | *0* | *8* | *16* | *0* | *42* |
| *Detention Pond Layout/Design* | *0* | *0* | *0* | *4* | *4* | *8* | *0* | *8* | *16* | *0* | *40* |
| *Driveway Summary Sheet* | *0* | *0* | *0* | *0* | *4* | *0* | *0* | *4* | *8* | *0* | *16* |
| *Traffic Control Plan* | *0* | *4* | *0* | *4* | *8* | *32* | *0* | *8* | *16* | *0* | *72* |
| *Demolition Plan (2 Sheets)* | *0* | *0* | *0* | *0* | *4* | *16* | *0* | *16* | *0* | *0* | *36* |
| *Cross sections* | *0* | *0* | *0* | *0* | *4* | *16* | *0* | *16* | *0* | *0* | *36* |
| *Signing and Pavement Marking Layout (2 Sheets)* | *0* | *0* | *0* | *1* | *0* | *0* | *0* | *8* | *8* | *0* | *17* |
| *Stormwater pollution prevention plans (2 Sheets)* | *0* | *0* | *0* | *1* | *4* | *8* | *0* | *4* | *8* | *0* | *25* |
| *Misc.Details* | *0* | *0* | *0* | *4* | *8* | *8* | *0* | *4* | *0* | *0* | *24* |
| *Quantities* | *0* | *0* | *0* | *2* | *0* | *8* | *0* | *8* | *8* | *0* | *26* |
| *Cost Estimates* | *0* | *0* | *0* | *2* | *4* | *0* | *0* | *4* | *0* | *0* | *10* |
| *QA/QC* | *4* | *4* | *8* | *8* | *0* | *0* | *0* | *0* | *0* | *0* | *24* |
| Subtotal 70% Submittal | 4 | 17 | 11 | 69 | 85 | 173 | 0 | 145 | 132 | 2 | 596 |
| **Final Design - 95% submittal** | | | | | | | | | | | |
| *Cover sheet/Index Sheet (2 Sheets)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *1* | *0* | *1* |
| *Typical sections (1 Sheets)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *2* | *0* | *2* |
| *Layout sheet (1 Sheets)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *2* | *0* | *2* |
| *Utility adjustment and relocation* | *0* | *0* | *0* | *2* | *4* | *8* | *0* | *0* | *8* | *0* | *22* |
| *Drainage design, Drainage Area Map* | *0* | *0* | *0* | *0* | *0* | *8* | *0* | *8* | *0* | *0* | *16* |
| *Plan & Profiles Sheets (Roadway) (7 Sheets)* | *0* | *4* | *4* | *4* | *0* | *16* | *0* | *8* | *24* | *0* | *60* |
| *Plan & Profiles Sheets (Intersections) (3 Sheets)* | *0* | *1* | *1* | *2* | *0* | *4* | *0* | *0* | *8* | *0* | *16* |
| *Intersection Grading Layout & detailing (1) Intersection* | *0* | *0* | *0* | *4* | *4* | *8* | *0* | *0* | *0* | *0* | *16* |
| *Traffic Engineering Plans (TCP detail design & narrative)* | *0* | *2* | *0* | *4* | *8* | *16* | *0* | *8* | *16* | *0* | *54* |
| *Cross sections* | *0* | *0* | *0* | *0* | *0* | *8* | *0* | *8* | *8* | *0* | *24* |
| *Signing & pavement markings (7 sheets)* | *0* | *0* | *0* | *0* | *0* | *8* | *0* | *0* | *8* | *0* | *16* |
| *Stormwater pollution prevention plans (2 Sheets)* | *0* | *0* | *0* | *0* | *0* | *6* | *0* | *0* | *6* | *0* | *12* |
| *Misc. Details* | *0* | *1* | *1* | *1* | *1* | *0* | *0* | *4* | *8* | *0* | *16* |
| *Quantities* | *0* | *0* | *0* | *0* | *4* | *8* | *0* | *8* | *0* | *0* | *20* |
| *Cost Estimates* | *0* | *0* | *0* | *2* | *4* | *0* | *0* | *8* | *0* | *0* | *14* |
| *Prepare project manual (specifications, bid forms)* | *0* | *0* | *4* | *8* | *16* | *0* | *0* | *16* | *0* | *4* | *48* |
| *QA/QC* | *8* | *8* | *8* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *24* |
| Subtotal 95% Design Phase Submittal | 8 | 21 | 21 | 51 | 46 | 90 | 0 | 71 | 91 | 6 | 363 |

## Fort Bend County Mobility Program

Fort Bend County Project No. 23106x

Sponsor: Fort Bend County

Skinner Lane (Segment 4) from Brandt Road to Mason Road

Consultant: Cobb, Fendley & Associates, Inc.

| **Bid-Ready 100% - Final Submittal** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Cover sheet/Index Sheet (2 Sheets)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *1* | *0* | *1* |
| *Typical sections (1 Sheets)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *2* | *0* | *2* |
| *Layout sheet (2 Sheets)* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *2* | *0* | *2* |
| *Drainage design, Drainage Area Map* | *0* | *0* | *0* | *2* | *4* | *0* | *0* | *4* | *8* | *0* | *18* |
| *Utility adjustment and relocation* | *0* | *0* | *0* | *4* | *4* | *0* | *0* | *4* | *0* | *0* | *12* |
| *Plan & Profiles Sheets (Roadway) (7 Sheets)* | *0* | *2* | *2* | *4* | *8* | *8* | *0* | *8* | *8* | *0* | *40* |
| *Plan & Profiles Sheets (Intersections) (3 Sheets)* | *0* | *0* | *1* | *1* | *4* | *4* | *0* | *0* | *8* | *0* | *18* |
| *Intersection Grading Layout & detailing (1) Intersection* | *0* | *0* | *0* | *2* | *4* | *4* | *0* | *0* | *0* | *0* | *10* |
| *Traffic Engineering Plans (TCP detail design & narrative)* | *0* | *0* | *0* | *4* | *4* | *8* | *0* | *8* | *16* | *0* | *40* |
| *Cross sections* | *0* | *0* | *0* | *0* | *0* | *8* | *0* | *0* | *8* | *0* | *16* |
| *Signing & pavement markings (8 sheets)* | *0* | *0* | *0* | *0* | *0* | *4* | *0* | *0* | *4* | *0* | *8* |
| *Stormwater pollution prevention plans* | *0* | *0* | *0* | *0* | *0* | *4* | *0* | *0* | *4* | *0* | *8* |
| *Misc. Details* | *0* | *1* | *1* | | *2* | *0* | *0* | *0* | *4* | *0* | *8* |
| *Quantities* | *0* | *0* | *0* | *0* | *8* | *4* | *0* | *4* | *0* | *0* | *16* |
| *Cost Estimates* | *0* | *2* | *0* | *2* | *4* | *0* | *0* | *0* | *0* | *0* | *8* |
| *Prepare complete project manual (specs, bid forms)* | *0* | *0* | *2* | *2* | *4* | *0* | *0* | *4* | *0* | *4* | *16* |
| *100% Sign & Sealed Bid ready Package* | *0* | *0* | *0* | *2* | *4* | *0* | *0* | *0* | *0* | *2* | *8* |
| *QA/QC* | *16* | *8* | *8* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *32* |
| Subtotal 100% Bid Ready Plans - Final Submittal | 16 | 18 | 17 | 47 | 55 | 44 | 0 | 35 | 65 | 8 | 305 |
| **Contract/Bidding** | | | | | | | | | | | |
| Attend Pre-Bid & Pre-Con Meeting | *0* | *4* | *0* | *4* | *0* | *0* | *0* | *0* | *0* | *0* | *8* |
| Questions & Addenda | *0* | *2* | *1* | *4* | *8* | *16* | *0* | *8* | *0* | *0* | *39* |
| Tabulation & Recommendation of Bid | *0* | *0* | *0* | *2* | *0* | *0* | *0* | *2* | *0* | *0* | *4* |
| Subtotal Contract/Bid | 0 | 11 | 4 | 34 | 13 | 16 | 0 | 13 | 0 | 2 | 93 |
| | | | | | | | | | | | |
| Subtotal Phase II Design Phase & Contract/Bidding | **28** | **68** | **53** | **200** | **198** | **323** | **0** | **265** | **288** | **18** | **1441** |
| | | | | | | | | | | | |
| **TOTAL HOURS PER, FINAL DESIGN & BIDDING** | **40** | **108** | **84** | **322** | **265** | **419** | **20** | **457** | **396** | **32** | **2143** |

**Fort Bend County Mobility Program**
Fort Bend County Project No. 23106x
Sponsor: Fort Bend County
Skinner Lane (Segment 4) from Brandt Road to Mason Road
Consultant: Cobb, Fendley & Associates, Inc.

| Expense Estimate | | | | | | |
|---|---|---|---|---|---|---|
| Task | Deliveries | Miles | Mileage ($0.655 | Reproduction | Review Fees | Total |
| **Project Management** | | | | | | |
| Project kick-off meeting (1) | $0 | | $0 | $0 | $0 | $0 |
| Attend status meetings (12) | $0 | | $0 | $0 | $0 | $0 |
| Prepare invoice (monthly) (12) | $0 | | $0 | $0 | $0 | $0 |
| Update project status (12) | $0 | | $0 | $0 | $0 | $0 |
| Project coordination (project staff & subs) | $0 | | $0 | $0 | $0 | $0 |
| | | | | | | |
| **Preliminary Engineering Report** | | | | | | |
| Traffic Data collection | $0 | | $0 | $0 | $0 | $0 |
| Conduct field visits (4) | $0 | 100 | $66 | $0 | $0 | $66 |
| Typical sections | $0 | | $0 | $0 | $0 | $0 |
| Horz/Vert alignments | $0 | | $0 | $0 | $0 | $0 |
| Alternatives analysis | $0 | | $0 | $0 | $0 | $0 |
| Traffic studies | $0 | | $0 | $0 | $0 | $0 |
| Drainage studies | $0 | | $0 | $0 | $0 | $0 |
| Construction sequencing/TCP | $0 | | $0 | $0 | $0 | $0 |
| Utility coordination | $0 | | $0 | $0 | $0 | $0 |
| Right-of-Way requirements | $0 | | $0 | $0 | $0 | $0 |
| Construction cost estimate | $0 | | $0 | $0 | $0 | $0 |
| Interagency coordination | $0 | | $0 | $0 | $0 | $0 |
| Prepare draft PER | $0 | | $0 | $0 | $0 | $0 |
| Prepare final PER | $0 | | $0 | $750 | $0 | $750 |
| QA/QC | $0 | | $0 | $0 | $0 | $0 |
| | | | | | | |
| **Final Design** | | | | | | |
| Revise horz/vert alignments | $0 | | $0 | $0 | $0 | $0 |
| Drainage design | $0 | | $0 | $0 | $0 | $0 |
| Utility coordination | $0 | | $0 | $0 | $0 | $0 |
| Agency approvals (TxDOT, Drainage District, TDLR) | $0 | | $0 | $0 | $0 | $0 |
| Prepare 50% submittal | | | | | | |
| *Cover sheet* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Typical sections* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Layout sheet* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Drainage area map* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Plan & profiles* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Traffic control plan* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Stormwater pollution prevention plans* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Traffic signals* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Illumination* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Bridges* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Details* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Quantities* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Cost Estimates* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Technical specifications* | *$0* | | $0 | *$0* | *$0* | $0 |
| *QA/QC* | *$0* | | $0 | *$0* | *$0* | $0 |
| Prepare 100% submittal | | | | | | |
| *Cover sheet* | *$0* | | $0 | *$0* | *$0* | $0 |
| *General notes* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Typical sections* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Layout sheet* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Drainage area map* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Plan & profiles* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Traffic control plan* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Cross sections* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Stormwater pollution prevention plans* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Traffic signals* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Signing & pavement markings* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Illumination* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Bridges* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Details* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Quantities* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Cost Estimates* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Prepare project manual (specifications, bid forms)* | *$0* | | $0 | *$0* | *$0* | $0 |
| *QA/QC* | *$0* | | $0 | *$0* | *$0* | $0 |
| Prepare final submittal | | | | | | |
| *Cover sheet* | *$0* | | $0 | *$0* | *$0* | $0 |
| *General notes* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Typical sections* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Layout sheet* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Drainage area map* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Plan & profiles* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Traffic control plan* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Cross sections* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Stormwater pollution prevention plans* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Traffic signals* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Signing & pavement markings* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Illumination* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Bridges* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Details* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Quantities* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Cost Estimates* | *$0* | | $0 | *$0* | *$0* | $0 |
| *Prepare complete project manual (specs, bid forms and front end docs)* | *$0* | | $0 | *$500* | *$0* | $500 |
| *QA/QC* | *$0* | | $0 | *$0* | *$0* | $0 |
| **Bid Phase** | | | | | | |
| Attend Pre-Bid Meeting | $0 | | $0 | $0 | $0 | $0 |
| Questions & Addenda | $0 | | $0 | $0 | $0 | $0 |
| Tabulation & Recommendation of Bid | $0 | | $0 | $0 | $0 | $0 |
| | | | | | | |
| Total Cost= | $0 | | $66 | $1,250 | $0 | $1,316 |

| SUBSURFACE UTILITY ENGINEERING: HOURLY COSTS | | | | | |
|---|---|---|---|---|---|
| **Task Description** | Project Manager II | Graduate Engineer II | Senior Technician I | Technician III | **TOTALS** |
| **CF 2024 RATES** | $ 258.00 | $ 141.00 | $ 152.00 | $ 134.00 | |
| **SUE Investigation** | | | | | |
| **Task 1 - Quality Level A** | | | | | |
| SUE Quality Level A (Mat Oversight) | | | | 50 | $ 6,700.00 |
| **SUBTOTAL TASK 1** | $ - | $ - | $ - | $ 6,700.00 | $ 6,700.00 |
| **Task 2 - Quality Level D** | | | | | |
| SUE Quality Level D (Records Research) | 2 | 10 | 8 | | $ 3,142.00 |
| **SUBTOTAL TASK 1** | $ 516.00 | $ 1,410.00 | $ 1,216.00 | $ - | $ 3,142.00 |
| **Task 3 - Right of Entry Coordination** | | | | | |
| Right-of-Entry Coordination | 4 | 10 | 3 | | $ 2,898.00 |
| **SUBTOTAL TASK 1** | $ 1,032.00 | $ 1,410.00 | $ 456.00 | $ - | $ 2,898.00 |

| SUBSURFACE UTILITY ENGINEERING: UNIT COSTS | | | | |
|---|---|---|---|---|
| | **QTY** | **UNIT** | **RATE** | **COST** |
| QLA Test Holes (including SUE, survey, reports) | 4 | each | $ 2,200.00 | $ 8,800.00 |
| QLB Designation (including SUE, survey, CAD) | 1000 | LF | $ 1.85 | $ 1,850.00 |
| | | | **SUBTOTAL** | $ 10,650.00 |

| SUBSURFACE UTILITY ENGINEERING: OTHER DIRECT EXPENSES | | | | |
|---|---|---|---|---|
| | **QTY** | **UNIT** | **RATE** | **COST** |
| Traffic Control: Flagging Operation | 50 | hour | $ 180.00 | $ 9,000.00 |
| Estimated Right-of-Entry Permit Fees | | | | $ 2,500.00 |
| Pipeline Matting Rental to perform QLA (Ritter Forest) | | | | $ 7,125.00 |
| Pipeline Matting Handling (Contract Oil & Gas) | | | | $ 19,600.00 |
| | | | **SUBTOTAL** | $ 38,225.00 |

| | |
|---|---|
| **BASIC SERVICES TOTAL** | **$ 61,615.00** |

| Basic Services Breakdown | | |
|---|---|---|
| | | |
| **Level A SUE (Test Holes)** | | |
| QLA Test Holes (including SUE, survey, reports) | $ | 4,400.00 |
| **Subtotal Level A SUE (Test Holes)** | **$** | **4,400.00** |
| | | |
| **Level A SUE (Test Holes at Wetland Area)** | | |
| QLA Test Holes (including SUE, survey, reports) | $ | 4,400.00 |
| SUE Quality Level A (Mat Oversight) | $ | 6,700.00 |
| Traffic Control: Flagging Operation | $ | 9,000.00 |
| Pipeline Matting Rental to perform QLA (Ritter Forest) | $ | 7,125.00 |
| Pipeline Matting Handling (Contract Oil & Gas) | $ | 19,600.00 |
| **Subtotal Level A SUE (Test Holes at Wetland Area)** | **$** | **46,825.00** |
| | | |
| **QLB Designation (including SUE, survey, CAD)** | | |
| QLA Test Holes (including SUE, survey, reports) | $ | 1,850.00 |
| **Subtotal QLB Designation (including SUE, survey, CAD)** | **$** | **1,850.00** |
| | | |
| **Level D SUE (Records Research** | | |
| SUE Quality Level D (Records Research) | $ | 3,142.00 |
| **Subtotal SUE Quality Level D (Records Research)** | **$** | **3,142.00** |
| | | |
| **Right-of-Entry Coordination and Fees** | | |
| Right-of-Entry Coordination | $ | 2,898.00 |
| Estimated Right-of-Entry Permit Fees | $ | 2,500.00 |
| **Subtotal Level A SUE (Test Holes)** | **$** | **5,398.00** |
| **BASIC SERVICES TOTAL** | **$** | **61,615.00** |

AVILES
ENGINEERING CORP.

June 17, 2024

Mr. Evan Shields, PE
Cobb, Fendley & Associates, Inc.
13430 Northwest Freeway, Suite 1100
Houston, Texas 77040

Re: Geotechnical Investigation Proposal
Skinner Lane Improvements, Segment 4
From Brandt Road to Mason Road
FBCE Project 23106
Fort Bend County, Texas
AEC Proposal No. G2024-06-05R1

Dear Mr. Shields,

Aviles Engineering Corporation (AEC) is pleased to present this geotechnical investigation proposal for the Fort Bend County Engineering Department's (FBCED) proposed Skinner Lane Segment 4 project from Brandt Road to Mason Road, in Fort Bend County, Texas.

Based on preliminary information provided by you and KCI Technologies, AEC understands Skinner Lane will be reconstructed and widened from an asphalt roadway to a concrete roadway. In addition, some segments of the existing roadway alignment will be adjusted (i.e. 'smoothed curves') through currently undeveloped properties. AEC understands that the new roadway will have open drainage swales; no storm sewers are under consideration at this time. AEC notes that the proposed alignment will cross over a channel area (potential wetland), which will require a culvert. Furthermore, there may be a proposed maximum 1 acre by 10 feet deep detention pond, although the pond perimeter and location have not been selected yet. As directed, this proposal is divided into a main scope that covers the roadway improvements and an optional additional scope that covers the detention pond. **Once the location of the pond and culvert is determined, the number and depth of the borings and proposed fees may be adjusted based on the actual size of the detention pond and length of culvert crossing, if necessary**.

In accordance with Chapter 8 of the 2022 Fort Bend County Engineering Department Engineering Design Manual, AEC proposes to drill a total of 8 soil borings for the main scope (6 borings to 10 feet for the roadway and 2 borings to 40 feet for the culvert) and a total of 2 soil borings for the optional additional scope (2 borings to 20 feet for the detention pond). For the main scope, AEC will install one piezometer to 30 feet to monitor site groundwater levels at the culvert, and for the optional additional scope, AEC will install one piezometer to 15 feet to monitor site groundwater levels at the detention pond. The boring and piezometer locations are shown on the attached Proposed Boring Location Plan. The total drilling footage for the main scope is 140 feet and the footage for the optional additional scope is 40 feet. AEC assumes that authorization for the optional additional scope will be provided at a later time than the main scope, and as a result, the field work for both scopes will be performed at different times.

We will perform a site reconnaissance prior to drilling and mark the boring locations. We will contact the Texas 811 System to confirm utility locations; however, Texas 811 does not locate water, sanitary, or storm sewer lines. We request that drawings showing existing underground utilities along the project alignment be provided to AEC prior to starting field work. Because of the proposed alignments, some of AEC's borings (such as Borings B-3, B-4, B-9, and B-10) will be located on private property. AEC requests that

Cobb, Fendley & Associates (CFA) arrange right of entry for private property access for AEC personnel and field work crews.

Based on Google Earth, AEC anticipates that all of the borings can be access using a truck-mounted drill rig, provided the ground is dry. Drilling may be delayed after rainfall events to prevent damage to the ground surface, such as rutting. AEC will use a subcontractor to provide traffic control during field work operations. We will collect samples continuously from the ground surface to a depth of 20 feet, and then at 5 foot intervals thereafter to the boring termination depths. Undisturbed samples will be obtained of cohesive soils by pushing a Shelby tube (ASTM D-1587). Standard Penetration Test samples will be obtained of granular soils (ASTM D-1586). Representative portions of all soil samples will be sealed, packaged, and transported to our laboratory. We will note any visual evidence or odor indicating hazardous materials if encountered in the samples. Water level readings will be noted during drilling and obtained upon completion of drilling. Borings B-4 and B-10 will be converted to piezometers after completion of drilling. Piezometers will be monitored after 24 hours and after approximately 30 days, after which they will be plugged and abandoned. Boreholes located on existing pavement will be grouted with cement-bentonite upon completion of drilling, while borings located off pavement will be backfilled with bentonite chips. Existing pavement (if any) will be patched with cold-placed asphalt. In accordance with FBCED requirements, AEC requests that the boring locations be surveyed after drilling is completed.

Laboratory testing may consist of moisture contents, Atterberg limits, percentage passing No. 200 sieve, sieve analysis, and unconfined compression, and unconsolidated-undrained (UU) triaxial tests depending on the soil types encountered. We will also perform crumb dispersion, double hydrometer dispersion, and one consolidated-undrained (CU) triaxial tests for the detention pond analyses. As part of our services, we will perform a preliminary fault study, which includes reviewing in-house published fault maps to identify documented faults crossing the alignment, and we will also visit the site to observe fault-related features that are evident along the alignment and immediate vicinity.

We will analyze the field and laboratory data to provide a geotechnical engineering report for the main scope that includes: (i) boring logs with subsurface soils and ground water depth encountered in the borings; (ii) preliminary fault study; (iii) recommendations for pavement thickness design of concrete pavement, embankment, and subgrade preparation; (iv) recommendations for culvert crossing, including allowable bearing capacity, subgrade preparation, cantilever walls, and backfill; and (v) construction and groundwater control guidelines for the proposed improvements. For the optional additional scope, AEC will provide a separate geotechnical engineering report that includes: (i) boring logs with subsurface soils and ground water depth encountered in the borings; (ii) recommendations for detention pond, including excavation, slope stability analyses, liner system (if needed), and evaluation if excavated soil can be reused as select fill; and (iii) construction and groundwater control guidelines for the proposed improvements.

The estimated total lump sum fee for our services based on the main scope (Roadway) is $**29,975.00** and the fee for the optional additional scope (Detention Pond) is **$18,199.00**, as presented on the Itemized Fee Estimate in the Attachments. The fees are based on the following assumptions: The fee assumes a truck rig can reach the boring locations and the field personnel will use Level D during the field exploration; (ii) any right-of-way for private property access for drilling will be provided to AEC at no charge; (iii) buggy rig mobilization, pavement coring, standby time, safety training, surveying, tree clearing, fence removal/restoration, working with hazardous materials, environmental sampling/testing/evaluation, and plan/specification review are not included in the above fee.

We will mark the boring locations, contact Texas 811 to locate and clear utilities, within 1 weeks after we receive notice to proceed ***and*** right of entry agreements are obtained. We will mobilize the drill rig within 2 to 3 weeks after the boring locations are marked and utilities are cleared. For the main scope, drilling

will take approximately 2 days to complete. The laboratory soil testing will require approximately 3 to 4 weeks after completion of drilling. We will provide a draft geotechnical report approximately 2 weeks after laboratory testing is completed ***and*** necessary project drawings are provided to AEC. We will provide the final geotechnical report approximately 2 weeks after review comments are received. For the optional additional scope, drilling will take approximately 1 day to complete. The laboratory soil testing will require approximately 5 to 6 weeks after completion of drilling (due to CU triaxial tests). We will provide a separate draft geotechnical report approximately 2 weeks after laboratory testing is completed ***and*** necessary project drawings are provided to AEC. We will provide the final geotechnical report approximately 2 weeks after review comments are received Both of the geotechnical reports will be provided as an electronic copy. The provided time frame is an estimate based on AEC's current schedule at the time this proposal was written and will remain valid for 60 days from the date of the proposal. If project authorization is received after 60 days, then the schedule estimated herein may be subject to change.

If any of the project details described in this proposal are incorrect or the scope described or the assumptions listed need to be revised, please inform us immediately so we can revise the proposal as necessary. To authorize us to proceed with the proposed geotechnical services, please issue us a Subconsultant agreement or Professional Services Contract to proceed with the services clearly reflecting the scope of services to be performed and referencing this proposal.

We appreciate the opportunity to present this proposal, and look forward to working with you.

Respectfully Submitted,
***AVILES ENGINEERING CORPORATION***
(TBPELS FIRM REGISTRATION NO. F-42)

Wilber L. Wang, P.E.
Senior Engineer

Attachments: Itemized Fee Estimate and Boring Location Plan

Geotechnical Investigation
Skinner Lane Improvements, Segment 4
Fort Bend County, Texas
AEC Proposal No. G2024-06-05R1
6/17/2024

AVLES ENGINEERING CORP.

# ITEMIZED FEE ESTIMATE - MAIN SCOPE: ROADWAY

**8 Borings Total: 6@10', 2@40'. One Piezometer Total: 1@30'.**

| A. FIELD EXPLORATION | QTY | UNIT | | RATE | AMOUNT |
|---|---|---|---|---|---|
| Mobilization/Demobilization | 1 | LS | @ | $746.00 | $746.00 |
| Drilling Crew Daily Mobilization (every day beyond first) | 1 | hrs. | @ | $565.00 | $565.00 |
| Field Coordination (Project Geologist) | 8 | hrs. | @ | $176.00 | $1,408.00 |
| Utility Clearance (Project Geologist) | 4 | hrs. | @ | $176.00 | $704.00 |
| Preliminary Fault Study (Project Geologist) | 8 | hrs. | @ | $176.00 | $1,408.00 |
| Boring Layout & Site Reconnaissance (Project Geologist) | 8 | hrs. | @ | $176.00 | $1,408.00 |
| Pavement Coring (6" dia, 6" thick core, min charge $400) | 0 | ea. | @ | $192.00 | $0.00 |
| Pavement Coring (6" dia, 6"-12") | 0 | inch | @ | $12.00 | $0.00 |
| Field Logger (Senior Technician) | 18 | hrs. | @ | $96.00 | $1,728.00 |
| Soil Drilling and Continuous Sampling (0 to 20 ft) | 100 | ft. | @ | $27.00 | $2,700.00 |
| Soil Drilling and Intermittent Sampling (20 to 50 ft) | 40 | ft. | @ | $24.00 | $960.00 |
| Soil Drilling and Intermittent Sampling (50 to 100 ft) | 0 | ft. | @ | $27.00 | $0.00 |
| Grouting Holes (Cement-bentonite) | 110 | ft. | @ | $13.00 | $1,430.00 |
| Traffic Control Subcontractor | 1 | days | @ | $1,250.00 | $1,250.00 |
| Install Piezometers | 30 | ft. | @ | $26.00 | $780.00 |
| Metal Piezometer Covers | 0 | ea. | @ | $60.00 | $0.00 |
| Piezometer Monitoring (Technician) | 8 | hrs. | @ | $69.00 | $552.00 |
| Piezometer Abandonment | 30 | ft. | @ | $21.00 | $630.00 |
| On-site Standby Time, if incurred (2-man Crew) | 0 | hrs. | @ | $320.00 | $0.00 |
| Vehicle Charge | 34 | hrs. | @ | $13.00 | $442.00 |
| | **SUBTOTAL** | | | | **$16,711.00** |
| **B. GEOTECHNICAL LABORATORY TESTING** | | | | | |
| Atterberg Limits (ASTM D-4318) | 19 | ea. | @ | $76.00 | $1,444.00 |
| Passing No. 200 Sieve (ASTM D-1140) | 19 | ea. | @ | $59.00 | $1,121.00 |
| Sieve Analysis w/o Hydrometer (ASTM D-422) | 2 | ea. | @ | $69.00 | $138.00 |
| Moisture Content (ASTM D-2216) | 58 | ea. | @ | $12.00 | $696.00 |
| Unconfined Compression (ASTM D-2166) | 8 | ea. | @ | $54.00 | $432.00 |
| Unconsolidated-Undrained Test (ASTM D-2850) | 11 | ea. | @ | $77.00 | $847.00 |
| 1-D Consolidation (ASTM D-2435) | 0 | ea. | @ | $650.00 | $0.00 |
| Crumb Dispersion (ASTM D-6572) | 4 | ea. | @ | $46.00 | $184.00 |
| Double Hydrometer Dispersion (ASTM D-4221) | 1 | ea. | @ | $266.00 | $266.00 |
| Consolidated-Undrained Test (ASTM D-4767) | 0 | ea. | @ | $1,800.00 | $0.00 |
| | **SUBTOTAL** | | | | **$5,128.00** |
| **C. PROJECT MANAGEMENT, MEETINGS, ENGINEERING, & REPOR** | | | | | |
| Principal Engineer, P.E. | 0 | hrs. | @ | $266.00 | $0.00 |
| Senior Engineer, P.E. | 4 | hrs. | @ | $218.00 | $872.00 |
| Project Engineer, P.E. | 18 | hrs. | @ | $176.00 | $3,168.00 |
| Graduate Engineer, EIT | 32 | hrs. | @ | $122.00 | $3,904.00 |
| Senior Technician (Drafting) | 2 | hrs. | @ | $96.00 | $192.00 |
| Reproduction (electronic copies only) | 0 | copies | @ | $30.00 | $0.00 |
| | **SUBTOTAL** | | | | **$8,136.00** |
| | **TOTAL ESTIMATED FEE** | | | | **$29,975.00** |

Geotechnical Investigation
Skinner Lane Improvements, Segment 4
Fort Bend County, Texas
AEC Proposal No. G2024-06-05R1
6/17/2024

AVLES ENGINEERING CORP.

# ITEMIZED FEE ESTIMATE - OPTIONAL ADDITIONAL: DETENTION POND

**2 Borings Total: 2@20'. One Piezometer Total: 1@15'.**

| A. FIELD EXPLORATION | QTY | UNIT | | RATE | AMOUNT |
|---|---|---|---|---|---|
| Mobilization/Demobilization | 1 | LS | @ | $746.00 | $746.00 |
| Drilling Crew Daily Mobilization (every day beyond first) | 0 | hrs. | @ | $565.00 | $0.00 |
| Field Coordination (Project Geologist) | 4 | hrs. | @ | $176.00 | $704.00 |
| Utility Clearance (Project Geologist) | 2 | hrs. | @ | $176.00 | $352.00 |
| Preliminary Fault Study (Project Geologist) | 0 | hrs. | @ | $176.00 | $0.00 |
| Boring Layout & Site Reconnaissance (Project Geologist) | 8 | hrs. | @ | $176.00 | $1,408.00 |
| Pavement Coring (6" dia, 6" thick core, min charge $400) | 0 | ea. | @ | $192.00 | $0.00 |
| Pavement Coring (6" dia, 6"-12") | 0 | inch | @ | $12.00 | $0.00 |
| Field Logger (Senior Technician) | 8 | hrs. | @ | $96.00 | $768.00 |
| Soil Drilling and Continuous Sampling (0 to 20 ft) | 40 | ft. | @ | $27.00 | $1,080.00 |
| Soil Drilling and Intermittent Sampling (20 to 50 ft) | 0 | ft. | @ | $24.00 | $0.00 |
| Soil Drilling and Intermittent Sampling (50 to 100 ft) | 0 | ft. | @ | $27.00 | $0.00 |
| Grouting Holes (Cement-bentonite) | 25 | ft. | @ | $13.00 | $325.00 |
| Traffic Control Subcontractor | 0 | days | @ | $1,250.00 | $0.00 |
| Install Piezometers | 15 | ft. | @ | $26.00 | $390.00 |
| Metal Piezometer Covers | 0 | ea. | @ | $60.00 | $0.00 |
| Piezometer Monitoring (Technician) | 8 | hrs. | @ | $69.00 | $552.00 |
| Piezometer Abandonment | 15 | ft. | @ | $21.00 | $315.00 |
| On-site Standby Time, if incurred (2-man Crew) | 0 | hrs. | @ | $320.00 | $0.00 |
| Vehicle Charge | 24 | hrs. | @ | $13.00 | $312.00 |
| | **SUBTOTAL** | | | | **$6,952.00** |
| **B. GEOTECHNICAL LABORATORY TESTING** | | | | | |
| Atterberg Limits (ASTM D-4318) | 6 | ea. | @ | $76.00 | $456.00 |
| Passing No. 200 Sieve (ASTM D-1140) | 6 | ea. | @ | $59.00 | $354.00 |
| Sieve Analysis w/o Hydrometer (ASTM D-422) | 1 | ea. | @ | $69.00 | $69.00 |
| Moisture Content (ASTM D-2216) | 20 | ea. | @ | $12.00 | $240.00 |
| Unconfined Compression (ASTM D-2166) | 2 | ea. | @ | $54.00 | $108.00 |
| Unconsolidated-Undrained Test (ASTM D-2850) | 4 | ea. | @ | $77.00 | $308.00 |
| 1-D Consolidation (ASTM D-2435) | 0 | ea. | @ | $650.00 | $0.00 |
| Crumb Dispersion (ASTM D-6572) | 4 | ea. | @ | $46.00 | $184.00 |
| Double Hydrometer Dispersion (ASTM D-4221) | 1 | ea. | @ | $266.00 | $266.00 |
| Consolidated-Undrained Test (ASTM D-4767) | 1 | ea. | @ | $1,750.00 | $1,750.00 |
| | **SUBTOTAL** | | | | **$3,735.00** |
| **C. PROJECT MANAGEMENT, MEETINGS, ENGINEERING, & REPOR** | | | | | |
| Principal Engineer, P.E. | 0 | hrs. | @ | $266.00 | $0.00 |
| Senior Engineer, P.E. | 4 | hrs. | @ | $218.00 | $872.00 |
| Project Engineer, P.E. | 20 | hrs. | @ | $176.00 | $3,520.00 |
| Graduate Engineer, EIT | 24 | hrs. | @ | $122.00 | $2,928.00 |
| Senior Technician (Drafting) | 2 | hrs. | @ | $96.00 | $192.00 |
| Reproduction (electronic copies only) | 0 | copies | @ | $30.00 | $0.00 |
| | **SUBTOTAL** | | | | **$7,512.00** |
| | **TOTAL ESTIMATED FEE** | | | | **$18,199.00** |


**LEGEND:**

PZ-# (X')
**B-#** (X') **PROPOSED PIEZOMETER (DEPTH IN FEET)**
**PROPOSED BORING (DEPTH IN FEET)**

Notes:
1. Boring locations may be adjusted as necessary in field for drill rig access.

**AVILES ENGINEERING CORPORATION**

PROPOSED BORING LOCATION PLAN

FORT BEND COUNTY
SKINNER LANE IMPROVEMENTS SEGMENT 4
FORT BEND COUNTY, TEXAS

| AEC PROPOSAL NO.: | DATE: | SOURCE DRAWING PROVIDED BY: |
|---|---|---|
| G2024-06-05R1 | 06-17-2024 | GOOGLE |
| APPROX. SCALE: | DRAFTED BY: | PLATE NO.: |
| 1" = 250' | WLW | PLATE 1 |

# REKHA ENGINEERING, INC.

CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

EVAN SHIELDS, P.E.
Associate | Transportation Project Manager
Direct: 713.485.8207
Mobile: 832.746.2206


JUNE 17, 2024
**rev 2-5-25**

## Cobb, Fendley & Associates, Inc.

RE: **Proposal and Letter of Agreement for: Professional Land Surveying for 2023 Fort Bend County Mobility Project - Roadway Design Mobility Project - Fort Bend County Project 23106 – Skinner Road No 4 from Brandt Road to Mason Road - Fort Bend County, Tx**

**REKHA ENGINEERING, INC. ("RE")** is pleased to submit the following proposal and letter of agreement to provide professional land surveying services for the referenced project. Included in the overall scope is to prepare :

1) Boundary Category 1B survey proposed existing right of way
Survey Control Map
2) Topographic Survey Category 6 with Survey Control Map for Bench marks
3) Overall Parcel Map of complete roadway with existing right of way and proposed right of way Alignments
4) Individual Parcel exhibit maps with metes and bounds per county criteria
5) Stake in the field the Proposed right of way for Clearing Contractor & Utility Company.
6) Optional Topographic survey for proposed detention pond area per 1 acre out of roadway.

All performed by our field land survey crews, calculation and AutoCAD cad technicians with professional review by our inhouse Registered Professional Land Surveyor. Files will be converted to Microstation at end of survey.

**Survey**

**2S.700 Existing Right-of-Way Maps (Cat. 1B Condition II)**

A. Provide deed research to determine existing rights-of-ways throughout the project routes.
B. Tie in property corners and block corners to define the existing rights-of-ways.
C. Prepare right-of-way map of the existing right-of-way in accordance with TSPS Category 1B, Condition II standards and conform to Harris County Standards.

***Deliverables:*** Signed, sealed, and dated right-of-way map of the existing rights-of-ways; Title reports

**2S.701 Topographic Survey (Cat. 6 Condition II)**

A. Perform topographic survey for 2700 linear feet with all intersections along this route, and for additional side streets as noted:
   i. ***Brandt Road and Mason Road***
B. Perform topographic survey at the following intersections :
   ***a) 100' Brandt Road each way b) Mason Road stop of the west right of way line of Mason Road***
C. Survey to include 20 feet outside of the right-of-way and up to 60 feet outside right- of-way for objects (obstructions), except those that are behind brick walls and buildings.
D. Establish elevations and locations of physical features including buildings, structures, signs, power poles, curbs, driveways, water meters, manholes, pedestals, ponds, light poles, etc. within the proposed and existing right-of-way. Overhead crossing utilities shall be limited to the low chord elevation.

E. Provide pipe flow line elevations, size, material and directions of all sanitary sewer lines, storm sewer lines and driveway culverts. Top of rim or top of grate and flow line elevations shall be recorded on all inlets, manholes and drainage structures.

F. Locate Ornamental trees or Landscape trees with a diameter of 4" and larger shall be located. Wooded/brushed areas shall be limited to an outlined area only. No Individual Trees shall be located on natural vegetation areas.

G. Provide SUE Level A through D provided by engineer.

H. Locate soil borings.

I. Provide all traffic control, labor, and equipment for the Traffic Control Plan (TCP) while performing field services in compliance with the regulations of the most recent edition of the "Texas Manual on Uniform Traffic Control Devices" and HCED Standards.

J. Prepare utility conflict table by engineer.

K. Attend Field Topo Verification Meeting to visibly check that all topo items are currently located as per the field notes. Objectives to be achieved during the field topo verification meeting include impacts that could affect the alignment alternatives have on the Right of Way, existing structures such as signals, utilities, and property, environmental impacts and impacts to existing and proposed improvements.

***Deliverables:*** CADD file along with ASCII point file plus CAD files to be converted to Microstation .dgn format, DTM with 1-foot contours and TIN file and XML file with break lines; 22"x34" 1" = 20' plan sheets for the topo field walk (6 copies)

**2S.702 Control**

A. Horizontal Survey Control shall be referenced to the Texas State Plane Coordinate System, South Central Zone, NAD83.

B. Vertical Control shall be based on the nearest existing Fort Bend Reference Marker, NAVD 1988, 2001 Adj.

C. Provide adequate number of control points that are set and recoverable.

D. Request information fromFBC for directions on tying controls to adjacent projects.

***Deliverables:*** Survey Control Map and three-point sketches, signed and sealed by a Texas RPLS.

**S.750 Proposed ROW Maps (Cat 1A, Cond. II) ($/parcel)**

Prepare parcel map exhibits and metes and bounds descriptions.

***Deliverables:*** Signed, sealed, and dated Parcel Map and Metes and Bounds.

**S.752 Topographic Survey – Detention Pond (Cat 6, Cond. II)**

A. Cross sections shall be obtained at 100 feet intervals along the detention pond and shall extend 25 feet beyond the existing right-of-way lines and 60 feet for Structures as applicable.

B. Survey to include 20 feet outside of the right-of-way and up to 60 feet outside right- of-way for objects (obstructions), except those that are behind brick walls and buildings.

C. Establish elevations and locations of physical features including buildings, structures, signs, power poles, curbs, driveways, water meters, manholes, pedestals, ponds, light poles, etc. within the proposed and existing right-of-way. Overhead crossing utilities shall be limited to the low chord elevation.

D. Perform Texas One Call for underground utility locations to mark utilities within the existing right-of-way and existing easements within the take area.

E. Obtain utility maps from CenterPoint Energy and AT&T.

F. Locate markings provided by One-Call and "visible" utilities within 20 feet of the proposed and or existing right-of-way.

G. Provide pipe flow line elevations, size, material and directions of all sanitary sewer lines, storm sewer lines and driveway culverts. Top of rim or top of grate and flow line elevations shall be recorded on all inlets, manholes and drainage structures.

H. Locate Ornamental trees or Landscape trees with a diameter of 4" and larger shall be located. Wooded/brushed areas shall be limited to an outlined area only. No Individual Trees shall be located on natural vegetation areas.

I. Locate soil borings.

J. Horizontal control shall be referenced to the Texas Coordinate System, South Central Zone, North American Datum 1983 (2011 Adjustment) as processed against NGS CORS and Leica Smartnet Network.

K. Vertical control shall be established and referenced to the North American Vertical Datum (NAVD) 1988 (2001 adjustment) as established by local Harris County Reference Marks.

L. Establish survey baselines and temporary benchmarks.

***Deliverables:*** CADD file along with ASCII point file plus CAD files to be converted to Microstation .dgn format , DTM with 1-foot contours and TIN file and XML file with break lines; 22"x34" 1"= 20' plan sheets for the topo field walk; signed, sealed, and dated Control Maps with three-point reference drawings.

**S.700C – D760C Survey Coordination**

Engineer shall coordinate with the survey provider for the completion of the Surveying tasks, which shall be included in the Study Phase Report or Design Plans.
All performed by our field land survey crews, calculation and AutoCAD cad technicians with professional review by our inhouse Registered Professional Land Surveyor. CAD files to be converted to Microstation .dgn format.

Once right-of-way needs have been determined and approved by the county, a Boundary Category 1A survey will be performed to produce: 1) an overall map showing the existing and proposed right-of-way adjoiner tracts with ownership including abstract information and stationing, 2) a parcel map and metes-and-bounds description for each parcel required for right-of-way acquisition plus setting of property corners and 3) a KMZ file (used by Google Earth) showing existing right-of-way with ownership information, proposed takings with parcel numbers, and a preliminary roadway layout. Right-of-way documents will be provided separately from other design documents and paid per-parcel basis.
Deliverable items shall be a) 2D Plainview drawing in AutoCAD Civil 3D Format b) ASCII files c) Texas RPLS signed and stamp Survey Control Map including swing ties.

Note **not included** are the following: any other land surveying services except as referenced above including no profile preparation plus cross section drafting. Proposed schedule is to complete the land surveying this scope in 2.5 months from NTP notice (75 calendar days) subject to weather/rain days.

**REKHA Engineering, Inc.** will perform the referenced services for the referenced project for a lump sum fee of:
1) Boundary Category 1B survey proposed existing right of way $ 25,190.00
With Survey Control Map Bench Marks

# REKHA ENGINEERING, INC.

CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

| | | |
|---|---|---|
| 2) Topographic Survey Category 6 with Survey Control Map for Bench marks | | 39,080.00 |
| 3) Overall Parcel Map of complete roadway with existing right of way & proposed right of way Alignments | | 14,640.00 |
| 4) Individual Parcel exhibit maps with metes and bounds per county criteria | 4,905.00 ea | |
| Overall Parcels 2 parcels x 4,905.00 ea parcel = | | 9,810.00 |
| 5) Stake in the field the Proposed right of way for Clearing Contractor and Utility Co. | | 5,400.00 |
| 6) Optional Detention Pond survey $ 3990.00/ 1.0 acre | | 3,990.00 |
| **Total** | | **$ 98,110.00** |

Including reimbursable expenses and no state sales tax (na). Reimbursable Expenses (RE) consist of mileage, plots, reproduction, filing fees, etc. as shown on Exhibit "A"._Note if the scope of services is adjusted or changed, and upon your **written** approval, we shall invoice extra services on an hourly basis as per Exhibit "A", attached hereto and made a part hereof. If this is acceptable to you, please sign below and return one fully executed original to us, at which time this will become a binding Agreement between us. Upon receipt thereof, we will immediately commence performance of our services. **Presently, RE has 2,000,000 professional liability Insurance coverage; workman compensation coverage; and $2,000,000 umbrella liability coverage.**

**RE** Appreciates the opportunity to submit this proposal and we are ready to perform for you!!

**REKHA ENGINEERING, INC.**

By: _____
John H. English, Sr. Vice President

**AGREED AND ACCEPTED BY CLIENT:**

By: _____
(Note: the entity and person that is signing this proposal is responsible for payment).
Type Name: _____ _____
Date_____
Telephone & Email_____

TBPE FIRM NO. F-3712 TBPLS FIRM NO. 10133800
7676 HILLMONT DRIVE, SUITE 350 - HOUSTON, TEXAS 77040
PHONE: (713) 895-8080/8081 - FAX: (713) 895-7686
Website: www.rekhaengineering.com - E-mail: jake1@pdq.net

# PROJECT: Fort Bend County 2023 Mobility Projects
# Skinner Lane - Segment 4 (3500LF)

**June 17, 2024**

**PROFESSIONAL LAND SURVEYING SERVICES BY:**


**REKHA ENGINEERING, INC.**
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

**(a Certified MBE Firm)**
**7676 Hillmont St. Suite 350**
**Houston, TX 77040**
**713-895-8080**
jake1@pdq.net
**TBPLS: 10133800, TBPE: F-3712**

REKHA ENGINEERING, INC.
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

# PROJECT: Fort Bend County 2023 Mobility Projects
# Skinner Lane - Segment 4 (3500LF)

## Table of Content

# REKHA ENGINEERING, INC.

CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

# PROJECT: Fort Bend County 2023 Mobility Projects
# Skinner Lane - Segment 4 (3500LF)

## 1. Topographic Roadway Survey

*6/17/2024*

| Description | Survey Crew | Tech | Sr. Tech | RPLS | Total |
|---|---|---|---|---|---|
| 1. Investigate plats and deeds | 0 | 0 | 0 | 0 | $0.00 |
| 2. Utility Investigation: COH Plan, FEMA, GIS, CenterPoint, AT&T, W-S-STM, ROW | 0 | 8 | 1 | 1 | $1,035.00 |
| 3. Field tie in benchmark and establish TBM(s) in field | 16 | 4 | 0 | 1 | $3,650.00 |
| 4. Field- Locate front corners and establish control | 24 | 8 | 1 | 1 | $5,715.00 |
| 5. Topographic street at 400LF/ day (area=3500x +-190' width) See Exhibit B | 60 | 8 | 1 | 1 | $12,735.00 |
| 6. Right of entry coordination of parcels (back P.C) | 4 | 2 | 1 | 1 | $1,245.00 |
| 7. CAD Topographic roadway design plus calculations of control | 0 | 60 | 8 | 1 | $6,850.00 |
| 8. Coordinate utility investigation with field work plus utility conflict table | 0 | 0 | 0 | 0 | $0.00 |
| 9. Combine all office and fieldwork to create overall maps coordinations | 0 | 12 | 4 | 1 | $1,790.00 |
| 10. Professional review and issue | 0 | 12 | 8 | 8 | $3,340.00 |
| 11. Control Map with benchmark plus TBMs | 4 | 12 | 4 | 2 | $2,720.00 |
| | 0 | 0 | 0 | 0 | $0.00 |

| | | | | | |
|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | $0.00 |
| Total Hours | 108 | 126 | 28 | 17 | |
| Rate/Hr | $195 | $95 | $125 | $150 | |
| Total Fee | $21,060 | $11,970 | $3,500 | $2,550 | **$39,080.00** |

# REKHA ENGINEERING, INC.

CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

## PROJECT: Fort Bend County 2023 Mobility Projects
## Skinner Lane - Segment 4 (3500LF)
### 2. Boundary Determining Existing Right of Way Survey

*6/17/2024*

| Description | Survey Crew | Tech | Sr. Tech | RPLS | Total |
|---|---|---|---|---|---|
| 1. Investigate plats and deeds plus adjoiner deeds and plats | 0 | 8 | 2 | 1 | $1,160.00 |
| 2. Utility Investigation: COH Plan, FEMA, GIS, CenterPoint, AT&T, W-S-STM, ROW | 0 | 0 | 0 | 0 | $0.00 |
| 3. Field tie in benchmark and establish TBM | 0 | 0 | 0 | 0 | $0.00 |
| 4. Field- Locate back corners adjoining tract and establish control | 20 | 8 | 4 | 1 | $5,310.00 |
| 5. Right of Way street at 500LF/day | 40 | 8 | 4 | 1 | $9,210.00 |
| 6. CAD Right of Way roadway map | 0 | 32 | 8 | 4 | $4,640.00 |
| 7. Combine all office and fieldwork to create overall maps coordinations | 0 | 8 | 8 | 1 | $1,910.00 |
| 8. Professional review and issue | 0 | 8 | 8 | 8 | $2,960.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| Total Hours | 60 | 72 | 34 | 16 | |
| Rate/Hr | $195 | $95 | $125 | $150 | |
| Total Fee | $11,700 | $6,840 | $4,250 | $2,400 | **$25,190.00** |

# REKHA ENGINEERING, INC.

CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

# PROJECT: Fort Bend County 2023 Mobility Projects
# Skinner Lane - Segment 4 (3500LF)

## 3. Parcel Overall Map with Existing Alignment with Proposed Aligment

*6/17/2024*

| Description | Survey Crew | Tech | Sr. Tech | RPLS | Total |
|---|---|---|---|---|---|
| 1. Coordinate & Review of plats and deeds plus adjoiner deeds | 0 | 8 | 4 | 2 | $1,560.00 |
| 2. Parcels overall right of way parcel map with existing right of way with prop.... | 0 | 32 | 8 | 8 | $5,240.00 |
| 3. Coordinate existing right of way with new alignment of right of way | 0 | 16 | 8 | 8 | $3,720.00 |
| 4. Combine all office and fieldwork to create overall maps coordinations | 0 | 8 | 2 | 1 | $1,160.00 |
| 5. Professional review and issue | 0 | 8 | 8 | 8 | $2,960.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| Total Hours | 0 | 72 | 30 | 27 | |
| Rate/Hr | $195 | $95 | $125 | $150 | |
| Total Fee | $0 | $6,840 | $3,750 | $4,050 | **$14,640.00** |

# REKHA ENGINEERING, INC.

CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

## PROJECT: Fort Bend County 2023 Mobility Projects
## Skinner Lane - Segment 4 (3500LF)

### 4. Individual meets and bound and Exhibit map of individual parcels

*6/17/2024*

| Description | Survey Crew | Tech | Sr. Tech | RPLS | Total |
|---|---|---|---|---|---|
| 1. Investigate plats and deeds | 0 | 2 | 0 | 1 | $340.00 |
| 2. Existing right of way taken map with proposed right of way | 0 | 16 | 4 | 2 | $2,320.00 |
| 3. Set property corners | 5 | 1 | 0 | 1 | $1,220.00 |
| 4. Combine all office and fieldwork to create overall maps coordinations | 0 | 4 | 1 | 1 | $655.00 |
| 5. Professional review and issue | 0 | 1 | 1 | 1 | $370.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| Total Hours | 5 | 24 | 6 | 6 | |
| Rate/Hr | $195 | $95 | $125 | $150 | |
| Total Fee per parcel | $975 | $2,280 | $750 | $900 | **$4,905.00** |

| | |
|---|---|
| Number of Parcels: | 2 |

| | |
|---|---|
| Total Fee | **$9,810** |

# REKHA ENGINEERING, INC.

CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

## PROJECT: Fort Bend County 2023 Mobility Projects
## Skinner Lane - Segment 4 (3500LF)

### 5. Stake property for clearing contractors

*6/17/2024*

| Description | Survey Crew | Tech | Sr. Tech | RPLS | Total |
|---|---|---|---|---|---|
| 1. Coordinate and calculate staking of property right of way | 0 | 4 | 2 | 1 | $780.00 |
| 2. Stake in field new right of way alignment per civil plans | 16 | 8 | 2 | 1 | $4,280.00 |
| 3. Collect stakes and confirm complete | 0 | 2 | 0 | 1 | $340.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| Total Hours | 16 | 14 | 4 | 3 | |
| Rate/Hr | $195 | $95 | $125 | $150 | |
| Total Fee | $3,120 | $1,330 | $500 | $450 | **$5,400.00** |

# REKHA ENGINEERING, INC.

CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS

## PROJECT: Fort Bend County 2023 Mobility Projects
## Skinner Lane - Segment 4 (3500LF)

### 6. Optional Detention Pond survey per 1.0 acre

*6/17/2024*

| Description | Survey Crew | Tech | Sr. Tech | RPLS | Total |
|---|---|---|---|---|---|
| 1. Tie in control & perform a topographic survey of 1 ac of detentionpond area adjacent to roadway at 100' interval per proposal | 8 | 4 | 2 | 1 | $2,340.00 |
| 2. Cad detention pond area per 1 acre | 0 | 8 | 2 | 1 | $1,160.00 |
| 3.Professional review of survey | 0 | 2 | 0 | 2 | $490.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| | 0 | 0 | 0 | 0 | $0.00 |
| Total Hours | 8 | 14 | 4 | 4 | |
| Rate/Hr | $195 | $95 | $125 | $150 | |
| Total Fee | $1,560 | $1,330 | $500 | $600 | **$3,990.00** |


EXHIBIT B

0' 75' 150' 300'

PROJECT:

SKINNER LANE SEG. 4

PROJECT No. 23106

FROM: BRANDT ROAD

TO: MASON ROAD

LENGTH: 3100 FT

DESCRIPTION:

UPGRADE EXISTING 2-LANE ASPHALT INTO A 3-LANE CONCRETE OPEN DITCHES INSIDE 80' ROW. INCLUDES FLATTENING CURVE RADII

FUNDED FOR CONSTRUCTION

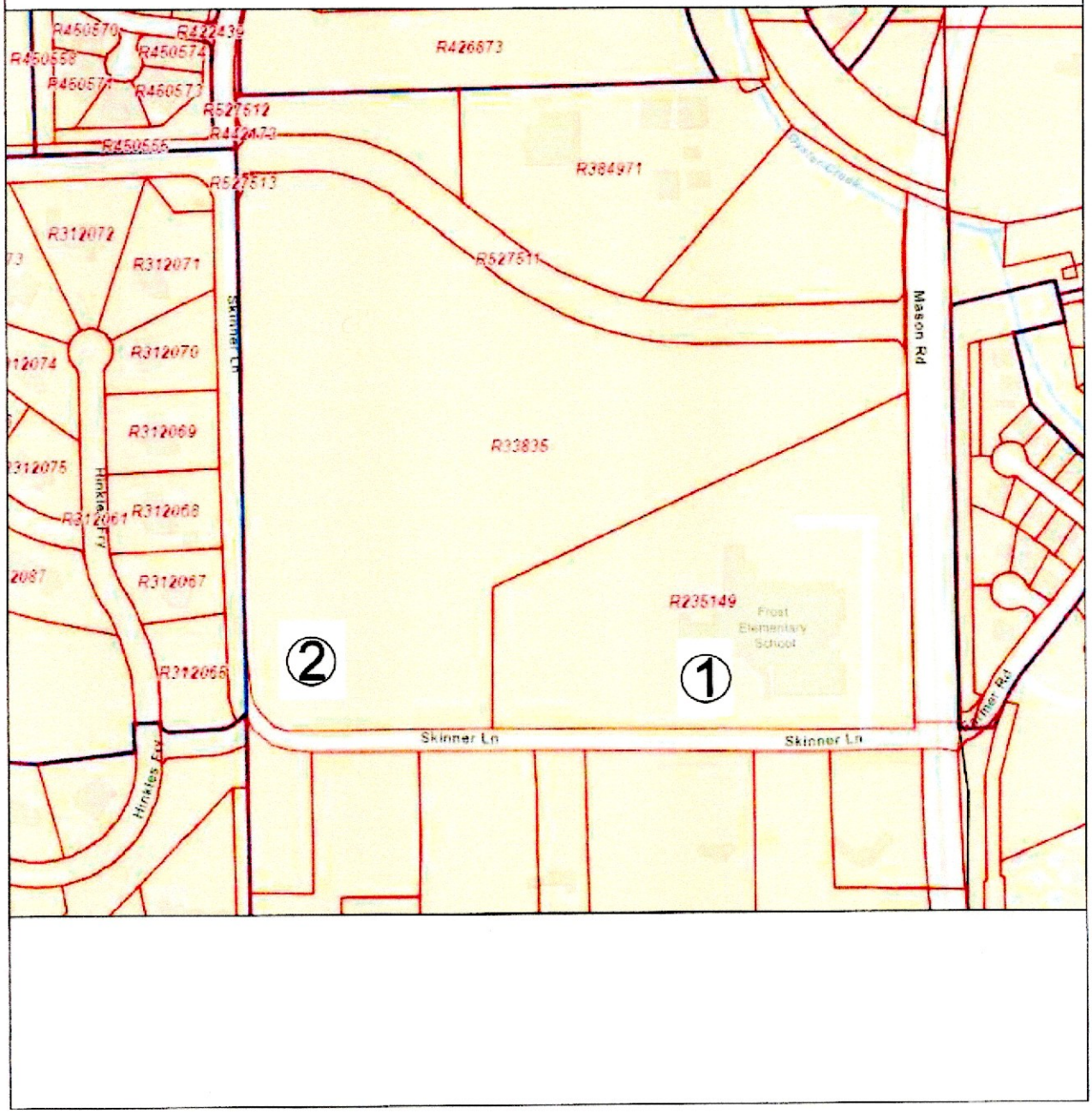
COORDINATION:

CITY OF RICHMOND ETJ
FBCDD

FIELD NOTES:

FORT BEND COUNTY
2023 MOBILITY BOND PROGRAM

# EXHIBIT C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R422439
R450574
R450558
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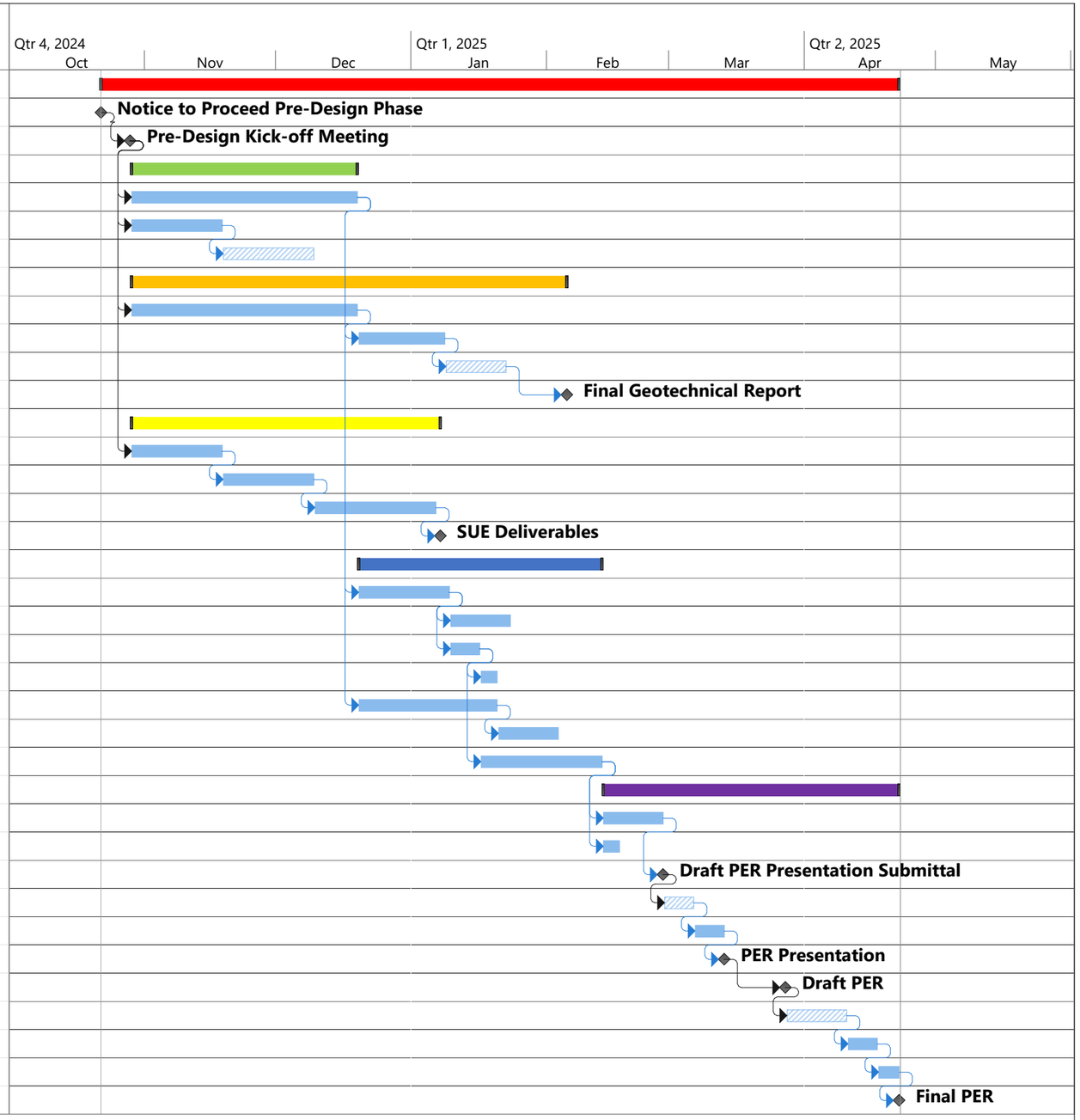
R527512
R422472
R450556
R527513
R426873
R384971
R527511
R312072
R312071
R312070
R312069
R312068
R312067
R312066
R312061
R33835
R235149
Frost Elementary School
Mason Rd
Skinner Ln
Skinner Ln
Skinner Rd
Hinkles Ferry
Hinkles Fry
Peters Creek
2
1

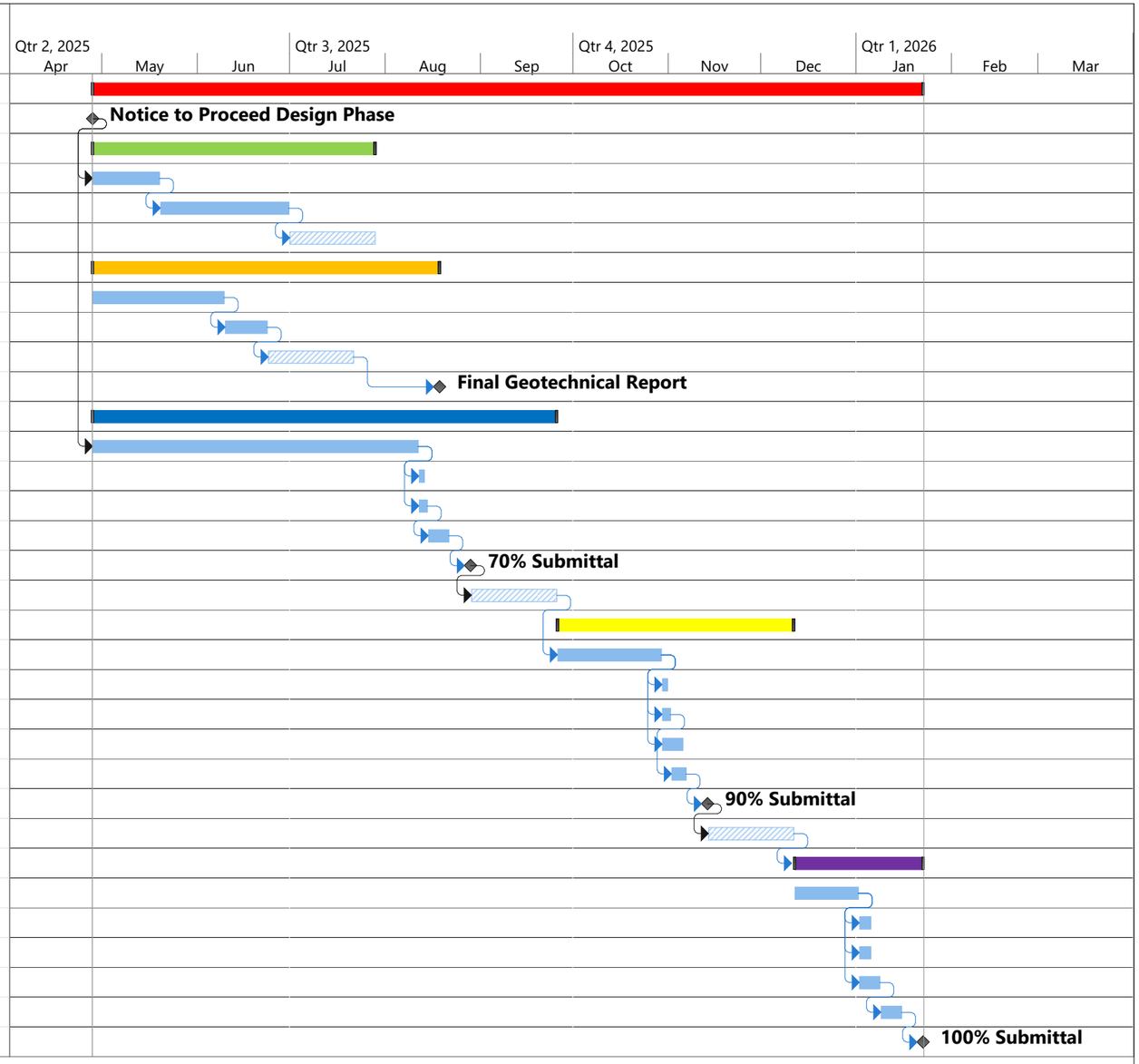
| ID | Task Mod | Task Name | Duration | Start | Finish |
|---|---|---|---|---|---|
| 1 | | **PRE-DESIGN PHASE** | **183 days** | **Tue 10/22/24** | **Tue 4/22/25** |
| 2 | | Notice to Proceed Pre-Design Phase | 0 days | Tue 10/22/24 | Tue 10/22/24 |
| 3 | | Pre-Design Kick-off Meeting | 0 days | Mon 10/28/24 | Mon 10/28/24 |
| 4 | | **Topographic Survey and Existing ROW Boundary** | **52 days** | **Tue 10/29/24** | **Thu 12/19/24** |
| 5 | | Topographic Survey | 52 days | Tue 10/29/24 | Thu 12/19/24 |
| 6 | | Existing ROW Maps | 21 days | Tue 10/29/24 | Mon 11/18/24 |
| 7 | | Existing ROW Maps Review | 21 days | Tue 11/19/24 | Mon 12/9/24 |
| 8 | | **Geotechnical** | **100 days** | **Tue 10/29/24** | **Wed 2/5/25** |
| 9 | | Geotechnical Investigation | 52 days | Tue 10/29/24 | Thu 12/19/24 |
| 10 | | Draft Geotechnical Report | 20 days | Fri 12/20/24 | Wed 1/8/25 |
| 11 | | Draft Geotechnical Report Review | 14 days | Thu 1/9/25 | Wed 1/22/25 |
| 12 | | Final Geotechnical Report | 0 days | Wed 2/5/25 | Wed 2/5/25 |
| 13 | | **Subsurface Utility Engineering** | **71 days** | **Tue 10/29/24** | **Tue 1/7/25** |
| 14 | | Level D & C - Records Research | 21 days | Tue 10/29/24 | Mon 11/18/24 |
| 15 | | Level B - Toning & Designation | 21 days | Tue 11/19/24 | Mon 12/9/24 |
| 16 | | Level A - Test Holes (Pipelines) | 28 days | Tue 12/10/24 | Mon 1/6/25 |
| 17 | | SUE Deliverables | 0 days | Tue 1/7/25 | Tue 1/7/25 |
| 18 | | **Roadway Design & Drainage Analysis** | **56 days** | **Fri 12/20/24** | **Thu 2/13/25** |
| 19 | | Roadway Layout - Horizontal & Vertical, Typical Sections | 21 days | Fri 12/20/24 | Thu 1/9/25 |
| 20 | | Preliminary Traffic Control Plan (TCP) Phasing | 14 days | Fri 1/10/25 | Thu 1/23/25 |
| 21 | | Culvert & Drainage Design | 7 days | Fri 1/10/25 | Thu 1/16/25 |
| 22 | | Utility Conflict Analysis | 4 days | Fri 1/17/25 | Mon 1/20/25 |
| 23 | | H&H Analysis | 32 days | Fri 12/20/24 | Mon 1/20/25 |
| 24 | | Drainage Report | 14 days | Tue 1/21/25 | Mon 2/3/25 |
| 25 | | 30% Plan Production | 28 days | Fri 1/17/25 | Thu 2/13/25 |
| 26 | | **PER & Client Presentation** | **68 days** | **Fri 2/14/25** | **Tue 4/22/25** |
| 27 | | Draft PER Presentation | 14 days | Fri 2/14/25 | Thu 2/27/25 |
| 28 | | Quantity Take-Off and Construction Cost Estimate | 4 days | Fri 2/14/25 | Mon 2/17/25 |
| 29 | | Draft PER Presentation Submittal | 0 days | Thu 2/27/25 | Thu 2/27/25 |
| 30 | | KCI Review | 7 days | Fri 2/28/25 | Thu 3/6/25 |
| 31 | | Address Comments | 7 days | Fri 3/7/25 | Thu 3/13/25 |
| 32 | | PER Presentation | 0 days | Thu 3/13/25 | Thu 3/13/25 |
| 33 | | Draft PER | 14 days | Fri 3/14/25 | Thu 3/27/25 |
| 34 | | FBC Engineering & KCI Review | 14 days | Fri 3/28/25 | Thu 4/10/25 |
| 35 | | Address Comments | 7 days | Fri 4/11/25 | Thu 4/17/25 |
| 36 | | QA/QC | 5 days | Fri 4/18/25 | Tue 4/22/25 |
| 37 | | Final PER | 0 days | Tue 4/22/25 | Tue 4/22/25 |




Project: 23106X - Skinner Lane Segment 4
Limits: From Brandt Road to Mason Road

Task Milestone

| ID | Task Mod | Task Name | Duration | Start | Finish |
|---|---|---|---|---|---|
| 1 | | **DESIGN PHASE** | **270 days** | **Mon 4/28/25** | **Thu 1/22/26** |
| 2 | | Notice to Proceed Design Phase | 0 days | Mon 4/28/25 | Mon 4/28/25 |
| 3 | | **Detention Pond Topographic Survey and Parcel Mapping** | **92 days** | **Mon 4/28/25** | **Mon 7/28/25** |
| 4 | | Detention Pond Topographic Survey | 22 days | Mon 4/28/25 | Mon 5/19/25 |
| 5 | | Proposed Metes & Bounds | 42 days | Tue 5/20/25 | Mon 6/30/25 |
| 6 | | Proposed Metes & Bounds Review | 28 days | Tue 7/1/25 | Mon 7/28/25 |
| 7 | | **Geotechnical** | **113 days** | **Mon 4/28/25** | **Mon 8/18/25** |
| 8 | | Geotechnical Investigation of Detention Site | 43 days | Mon 4/28/25 | Mon 6/9/25 |
| 9 | | Draft Geotechnical Report | 14 days | Tue 6/10/25 | Mon 6/23/25 |
| 10 | | Draft Geotechnical Report Review | 28 days | Tue 6/24/25 | Mon 7/21/25 |
| 11 | | Final Geotechnical Report | 14 days | Tue 8/5/25 | Mon 8/18/25 |
| 12 | | **70% Submittal** | **151 days** | **Mon 4/28/25** | **Thu 9/25/25** |
| 13 | | 70% Plan Production | 106 days | Mon 4/28/25 | Mon 8/11/25 |
| 14 | | Public and Private Utility Table | 2 days | Tue 8/12/25 | Wed 8/13/25 |
| 15 | | Quantities, Cost Estimate, and Bid Form | 3 days | Tue 8/12/25 | Thu 8/14/25 |
| 16 | | QA/QC | 7 days | Fri 8/15/25 | Thu 8/21/25 |
| 17 | | 70% Submittal | 0 days | Thu 8/28/25 | Thu 8/28/25 |
| 18 | | FBC Engineering and KCI Review | 28 days | Fri 8/29/25 | Thu 9/25/25 |
| 19 | | **95% Submittal** | **77 days** | **Fri 9/26/25** | **Thu 12/11/25** |
| 20 | | 95% Plan Production | 34 days | Fri 9/26/25 | Wed 10/29/25 |
| 21 | | Update Public and Private Utility Table | 2 days | Thu 10/30/25 | Fri 10/31/25 |
| 22 | | Project Manual | 3 days | Thu 10/30/25 | Sat 11/1/25 |
| 23 | | Quantities, Cost Estimate, and Bid Form | 7 days | Thu 10/30/25 | Wed 11/5/25 |
| 24 | | QA/QC | 5 days | Sun 11/2/25 | Thu 11/6/25 |
| 25 | | 90% Submittal | 0 days | Thu 11/13/25 | Thu 11/13/25 |
| 26 | | FBC Engineering and KCI Review | 28 days | Fri 11/14/25 | Thu 12/11/25 |
| 27 | | **100% Submittal** | **42 days** | **Fri 12/12/25** | **Thu 1/22/26** |
| 28 | | 100% Plan Production | 21 days | Fri 12/12/25 | Thu 1/1/26 |
| 29 | | Update Public and Private Utility Table | 4 days | Fri 1/2/26 | Mon 1/5/26 |
| 30 | | Update Project Manual | 4 days | Fri 1/2/26 | Mon 1/5/26 |
| 31 | | Quantities, Cost Estimate, and Bid Form | 7 days | Fri 1/2/26 | Thu 1/8/26 |
| 32 | | QA/QC | 7 days | Fri 1/9/26 | Thu 1/15/26 |
| 33 | | 100% Submittal | 0 days | Thu 1/22/26 | Thu 1/22/26 |




Project: 23106X -Skinner Lane Segment 4
Limits: From Brandt Road to Mason Road

Task Milestone

| | | | | |
|---|---|---|---|---|
| **PROJECT NO:** | 23106 | | | |
| **ROAD NAME:** | Skinner Lane | | | |
| **ENTER LIMITS:** | FROM: Brandt | | | |
| | TO: Mason Road | | | |
| **ENTER LENGTH:** | FEET = 3,100 | | | |
| | STA = 31.0 | | | |
| | MILES = 0.59 | Sta: | | |
| **SELECT ROADWAY TYPE** | CONCRETE 3-LANE C&G (36'-40' F-F) | 31.00 | | |
| | CONCRETE ADDITIONAL LANE | 31.00 | | |
| | NONE | | | |

| **COST SUMMARY** | | |
|---|---|---|
| CONSTRUCTION | $ | 3,363,000 |
| ENGINEERING | | |
| PROGRAM & ESCALATION | | |
| ENVIRONMENTAL | | |
| CM&I & CMT | | |
| RIGHT OF WAY & UTILITIES | $ | 830,000 |
| **TOTAL PROJECT BUDGET** | **$** | **4,193,000** |

**DESCRIPTION:** Reconstruct existing 2 lane asphalt into a 3 lane Concrete w/ 2' shoulders and open ditch inside 80' ROW. (sidewallk on 1 side if possible.)

**PREPARED BY:** Zach Jacobson
**REVISION DATE:** 5/30/2024

| | DESCRIPTION | | | UNIT | QTY | COST | AMOUNT | COMMENTS/ ASSUMPTIONS |
|---|---|---|---|---|---|---|---|---|
| **CONSTRUCTION** | | | FACTORS | | | | | |
| A | SITE PREPARATION | Typical | 1 | STA | 31.0 | $ 3,500.00 | $ 110,640 | |
| | **EARTHWORK** | | | | | | | |
| | CONCRETE 3-LANE C&G (36'-40' F-F) | | | STA | 31.0 | $ 14,800.00 | $ 458,800 | |
| B | CONCRETE ADDITIONAL LANE | | | STA | 31.0 | $ 4,440.00 | $ 137,640 | |
| | NONE | | | STA | 0.0 | $ - | $ - | |
| | | | | | | Total Earthwork | **$ 596,440** | |
| | **PAVING** | | | | | | | |
| | CONCRETE 3-LANE C&G (36'-40' F-F) | | | STA | 31.0 | $ 38,099.78 | $ 1,181,093 | |
| C | CONCRETE ADDITIONAL LANE | | | STA | 31.0 | $ 11,655.33 | $ 361,315 | |
| | NONE | | | STA | 0.0 | $ - | $ - | |
| | | | | | | Total paving | **$ 1,542,408** | |
| D | STORM SEWER | No | | STA | 0.0 | $ 32,600.00 | $ - | |
| | | OPTIONAL ADDITIONAL STORM SEWER | | STA | 0.0 | | $ - | |
| E | DETENTION | EXISTING PAVEMENT WIDTH | | FT | 24 | | | Formula for Detention: (Length*Width*Acre*Ft)/Acres)/Acres |
| | | Pond | | AC FT | 1.20 | $ 50,000.00 | $ 59,780 | |
| F | TCP | Typical | 1 | STA | 31.0 | $ 1,900.00 | $ 58,900 | |
| G | SIGNING & PAVEMENT MARKINGS | | | STA | 31.0 | $ 900.00 | $ 27,900 | |
| H | TRAFFIC SIGNAL | | | EA | 0.000 | $ 300,000.00 | $ - | |
| I | SWPPP | Typical | 1 | STA | 31.0 | $ 928.97 | $ 40,166 | |
| K | SIDEWALKS (5') | One Side | 1 | STA | 31.0 | $ 4,200.00 | $ 130,200 | No Sidewalks |
| L | BRIDGE | None | | SF | | $ - | $ - | |
| M | OPEN DITCH & CROSS CULVERTS | | | STA | 31.0 | $ 4,000.00 | $ 124,000 | |
| N | RETAINING WALLS | None | | SF | | $ - | $ - | |
| O | TRAFFIC ROUNDABOUT | None | | EA | | $ - | $ - | |
| P | DRIVEWAYS | | | EA | | $ 5,000.00 | $ - | |
| | OTHER | | | EA | | $ - | $ - | |
| | OTHER | | | EA | | $ - | $ - | |
| | OTHER | | | EA | | $ - | $ - | |
| **PUBLIC UTILITIES** | | | | | | | | |
| | RELOCATE WATER DISTRIBUTION | | | STA | | $ 1,500.00 | $ - | |
| | RELOCATE WATER TRANSMISSION | | | STA | | $ 3,500.00 | $ - | |
| | RELOCATE SANITARY SEWER | | | STA | | $ 6,500.00 | $ - | |
| | RELOCATE FORCE MAIN | | | STA | | $ 6,500.00 | $ - | |
| **CONTINGENCY (% x CONST ITEMS)** | | | | BUDGET | | 25% | $ 672,600 | |
| | | **SUBTOTAL CONSTRUCTION COST** | | | | | **$ 3,363,000** | |

| | | | | | |
|---|---|---|---|---|---|
| **PROJECT NO:** | 23106 | | | | |
| **ROAD NAME:** | Skinner Lane | | | | |
| **ENTER LIMITS:** | FROM: Brandt | | | | |
| | TO: Mason Road | | | | |
| **ENTER LENGTH:** | FEET = 3,100 | | | | |
| | STA = 31.0 | | | | |
| | MILES = 0.59 | | Sta: | | |
| **SELECT ROADWAY TYPE** | CONCRETE 3-LANE C&G (36'-40' F-F) | | 31.00 | | |
| | CONCRETE ADDITIONAL LANE | | 31.00 | | |
| | NONE | | | | |

| **COST SUMMARY** | | |
|---|---|---|
| CONSTRUCTION | $ | 3,363,000 |
| ENGINEERING | | |
| PROGRAM & ESCALATION | | |
| ENVIRONMENTAL | | |
| CM&I & CMT | | |
| RIGHT OF WAY & UTILITIES | $ | 830,000 |
| **TOTAL PROJECT BUDGET** | **$** | **4,193,000** |

**DESCRIPTION:** Reconstruct existing 2 lane asphalt into a 3 lane Concrete w/ 2' shoulders and open ditch inside 80' ROW. (sidewallk on 1 side if possible.)

**PREPARED BY:** Zach Jacobson
**REVISION DATE:** 5/30/2024

| | | | | | | |
|---|---|---|---|---|---|---|
| **RIGHT OF WAY & UTILITIES** | | | | | | |
| DEVELOPED | SF | 128,000 | $ 5.00 | $ 640,000 | | |
| HARD CORNERS | EA | | $ 5,000.00 | $ - | | |
| STRUCTURES | EA | | $ 20,000.00 | $ - | | Impact to fences, sheds, etc. |
| ROW ACQUISITION COSTS | PARCEL | 4 | $ 6,000.00 | $ 24,000 | | Land Value and Fees |
| PIPELINE RELOCATION ( <8" ) | EA | | $ 500,000.00 | $ - | | |
| PIPELINE RELOCATION ( 8"-16" ) | EA | | $ 900,000.00 | $ - | | |
| PIPELINE RELOCATION ( >16" ) | EA | | $ 1,200,000.00 | $ - | | |
| OTHER UTILITIES | BUDGET | | | | | |
| **CONTINGENCY (% x ROW &UTILITY COST )** | BUDGET | | 25% | $ 166,000 | | |
| **SUBTOTAL RIGHT OF WAY & UTILITIES** | | | | **$ 830,000** | | |
| **TOTAL PROJECT COST** | | | | **$ 4,193,000** | | |
| **COUNTY BOND AMOUNT** | | | | **$ 4,193,000** | | |