STATE OF TEXAS §
§
COUNTY OF FORT BEND §

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

(Engineering Consulting Services– Project No. 23411)

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 TLC Engineering, Inc. ("Engineer"), a a Texas corporation. County and Engineer may be referred to individually as a "Party" or collectively as the "Parties."

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

WHEREAS, County desires for Engineer to provide such professional engineering services for Engineering Consulting Services for Humphrey Way under Mobility Bond Project No. 23411; and

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

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

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

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

1. **Recitals.** The recitals set forth above are incorporated herein by reference and made a part of this Agreement.

2. **Scope of Services.** Engineer shall render services to County as provided in Engineer's Proposal attached hereto as "Exhibit A" and incorporated herein by reference (the "Services").

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

4. **Compensation and Payment Terms.**

Engineer's fees for the Services shall be calculated at the rate(s) set forth in Exhibit "A" attached hereto. The Maximum Compensation to Engineer for the Services performed under this Agreement is $1,637,945.00. In no event shall the amount paid by County to Engineer under this Agreement exceed said Maximum Compensation without an approved change order.

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

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

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

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

5. **Limit of Appropriation.** Engineer understands and agrees that the Maximum Compensation for the performance of the Services within the Scope of Services described in Section 2 above is $1,637,945.00. In no event shall the amount paid by County under this Agreement exceed the Maximum Compensation without a County approved change order. Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total

maximum sum of $1,637,945.00 specifically allocated to fully discharge any and all liabilities County may incur under this Agreement. Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total Maximum Compensation that Engineer may become entitled to and the total maximum sum that County may become liable to pay Engineer under this Agreement shall not under any conditions, circumstances, or interpretations thereof exceed $1,637,945.00.

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, ENGINEER SHALL PROCURE AND MAINTAIN LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT.**

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

ACTION, PROCEEDING, LIEN, OR JUDGMENT, AND NO LATER THAN THE FIFTEENTH DAY OF EACH MONTH, ENGINEER SHALL PROVIDE COUNTY WITH A WRITTEN REPORT ON EACH MATTER, SETTING FORTH THE STATUS OF EACH MATTER, THE SCHEDULE OR PLANNED PROCEEDINGS WITH RESPECT TO EACH MATTER, AND THE COOPERATION OR ASSISTANCE, IF ANY, OF COUNTY REQUIRED BY ENGINEER IN THE DEFENSE OF EACH MATTER. IN THE EVENT OF ANY DISPUTE BETWEEN THE PARTIES AS TO WHETHER A CLAIM, DEMAND, SUIT, ACTION, PROCEEDING, LIEN, OR JUDGMENT APPEARS TO HAVE BEEN CAUSED BY OR APPEARS TO HAVE ARISEN OUT OF OR RESULTS FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY ENGINEER, OR ITS AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH ENGINEER EXERCISES CONTROL, ENGINEER SHALL, NEVERTHELESS, FULLY DEFEND SUCH CLAIM, DEMAND, SUIT, ACTION, PROCEEDING, LIEN, OR JUDGMENT UNTIL AND UNLESS THERE IS A DETERMINATION BY A COURT OF COMPETENT JURISDICTION THAT SAID ACTS AND/OR OMISSIONS OF ENGINEER ARE NOT AT ISSUE IN THE MATTER.

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

10. **Public Information Act.** Engineer expressly acknowledges and agrees that County is a public entity and as such, is subject to the provisions of the Texas Public Information Act under Chapter 552 of the Texas Government Code. In no event shall County be liable to Engineer for release of information pursuant to Chapter 552 of the Texas Government Code or any other provision of law. Except to the extent required by law or as directed by the Texas Attorney General, County agrees to maintain the confidentiality of information provided by Engineer expressly marked as proprietary or confidential. County shall not be liable to Engineer for any disclosure of any proprietary or confidential information if such information is disclosed under Texas law or at the direction of the Texas Attorney General. Engineer further acknowledges and agrees that the terms and conditions of this Agreement are not proprietary or confidential information.

11. **Compliance with Laws.** Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules, regulations, and the decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. Engineer, in providing all services hereunder, further agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

12. **Independent Contractor.** In the performance of work or services hereunder, Engineer shall be deemed an independent Contractor, and any of its agents, employees, officers,

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

13. **Use of Customer Name.** Engineer may use County's name without County's prior written consent only in Engineer's customer lists. Any other use of County's name by Engineer must have the prior written consent of County.

14. **County/County Data.** Nothing in this Agreement shall be construed to waive the requirements of Section 205.009 of the Texas Local Government Code.

15. **Personnel.** Engineer represents that it presently has, or is able to obtain adequate qualified personnel in its employment for the timely performance of the Services required under this Agreement and that Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Services when and as required and without delays.

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

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

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

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

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

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

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

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

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

19. **Termination.**

(a) Without Cause. County, in its sole discretion, and without prejudice to any other remedy to which it may be entitled to at law or in equity, may terminate this Agreement, in whole or in part, without cause, upon thirty (30) days prior written notice to Engineer.

(b) With Cause. County, in its sole discretion, and without prejudice to any other remedy to which it may be entitled to at law or in equity, may terminate this Agreement, in whole or in part, with cause, for any of the following reasons, each of which shall constitute a material breach and "Default" of the Agreement:

(1) Engineer fails to perform any portion of the Scope of Services within the timeframe(s) provided under this Agreement.

(2) Engineer fails to comply with County's documentation and reporting requirements, terms and requirements of this Agreement, or applicable federal, state, or local laws and regulations.

(3) Non-performance and suspension of the Agreement by Engineer that exceeds thirty (30) calendar days due to Force Majeure.

(4) Engineer fails to perform any obligation under this Agreement or as required by law, ordinance, or regulation and such failure creates an imminent threat to the public health and/or safety.

(5) Engineer otherwise materially breaches any of the covenants or terms and conditions set forth in this Agreement or fails to perform any of the other provisions of this Agreement or so fails to make progress as to endanger performance of this Agreement in accordance with its terms.

(6) County shall notify Engineer in writing of the alleged Default in reasonable detail ("Notice"). Upon receipt of said Notice, Engineer shall have opportunity to cure such Default within the time specified in the Notice by County. If Engineer fails to cure such Default within such time, and to the reasonable satisfaction of County, then County may elect to terminate this Agreement for cause.

(7) If, after termination of the Agreement by County for cause, it is determined for any reason whatsoever that Engineer was not in Default, or that the Default was excusable, the rights and obligations of the Parties hereunder shall be the same as if the termination had been issued by County without cause in accordance with this Agreement.

(c) Upon termination of this Agreement for any reason, Engineer shall cease all work and activity for the Services by the date specified by County and shall not incur any new obligations or perform any additional services for the work performed hereunder beyond the specified date. County shall compensate Engineer in accordance with Section 4, above, for such work provided by Engineer under this Agreement prior to its termination and which has not been previously presented for payment by Engineer to County.

(d) If County terminates this Agreement as provided in this Section, no fees of any type, other than fees due and payable at the termination date, shall thereafter be paid to Engineer.

20. **Force Majeure.** In the event either Party is rendered unable, wholly or in part, by Force Majeure to carry out any of its obligations under this Agreement, then, within a reasonable time after the occurrence of such event, but no later than ten (10) calendar days after, the Party whose obligations are so affected (the "Affected Party") thereby shall notify the other in writing stating the nature of the event and the anticipated duration. The Affected Party's obligations under this Agreement shall be suspended during the continuance of any delay or inability caused by the event, but for no longer period. The Affected Party shall further endeavor to remove or overcome such delay or inability as soon as is reasonably possible.

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

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

21. **Assignment.** Engineer shall not assign this Agreement to another party without the prior written consent of County, which consent shall not be unreasonably withheld, conditioned, or delayed. Any purported or attempted assignment or transfer in violation of this Section shall be null and void.

22. **Successors and Assigns Bound.** County and Engineer each bind themselves and their successors and assigns to the other Party and to the successors and assigns of such other Party, with respect to all covenants of this Agreement.

23. **Publicity.** Contact with citizens of Fort Bend County, media outlets, or other governmental agencies shall be the sole responsibility of County. Under no circumstances, whatsoever, shall Engineer release any material or information developed or received during the performance of Services hereunder unless Engineer obtains the express written approval of County or is required to do so by law.

24. **Notice.** Any and all notices required or permitted under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or personally delivered to the following addresses:

If to County:
Fort Bend County Engineering
Attn: County Engineer
301 Jackson Street, 4th Floor
Richmond, Texas 77469

And

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

If to Engineer:
TLC Engineering, Inc.
8204 Westglen Drive
Houston, Texas 77063

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

TLC ENGINEERING, INC.

_____
Authorized Agent – Signature

TONY L. COUNCIL
Authorized Agent- Printed Name

PRESIDENT
Title

3-14-2025
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

EXHIBIT A

(Engineer's Proposal Follows Behind)

PROPOSAL
ENGINEERING CONSULTING SERVICES

Humphrey Way

Project # 23411

Addressed to:
Mr. Stacy Slawinski

ATTN: Ike Akinwande and Marcus Baskin

Representing Fort Bend County Engineering Dept.

Mobility Bond Projects 2023
Fort Bend County Precinct IV

ENGINEERING

Prime Provider: TLC Engineering, Inc.
8204 Westglen Drive, Houston TX 77063

Project Manager

Wanzhi Li, Ph.D., PE
February 14, 2025

1. PROJECT OVERVIEW

The Humphrey Way roadway project consists of two separated Double Twelve feet (2_12'-0") travel lanes for north and south bounds from Loop 541 to Emmanuel King Road, a Single Twelve feet (12'-0") travel lane for West and East bounds along Emmanuel King Road to Brooks Branch Creek. The roadway should be built within a proposed ROW of One Hundred feet (100'-0"). A median of thirty-three feet (33'-0") shall be furnished between the two bounds. Potential subsurface utility conflicts may be encountered that require necessary utility relocation. Protection or removal of existing trees shall be necessary. Different alternatives shall be studied at the intersections of Humphrey Way and Loop 541, and Humphrey Way and Emmanuel King Road.

2. PROPOSED CONSULTING FEE (see Attachment B)

2.1 Basic Services

An estimated Lump Sum Basic Service Fee is: **ONE MILLION FOUR HUNDRED TWENTY THOUSAND EIGHT HUNDRED AND EIGHTEEN 00/100 DOLLARS ($1,420,818.00).**

2.2 Permitting and Bidding Support Services

The compensation for permitting and bidding support services is estimated as: **EIGHTY THOUSAND SEVEN HUNDRED AND FORTY 00/100 DOLLARS ($80,740.00).**

2.3 Potential Additional Services

The Potential Additional Services compensation, which may be subject to change, is estimated as: **ONE HUNDRED THIRTY-SIX THOUSAND THREE HUNDRED AND EIGHTY-SEVEN 00/100 DOLLARS ($136,387.00).**

2.4 Consulting Fee Allocations:

Category	Firm	Amount
Basic Services	**Total Basic Services**	**$ 1,420,818.00**
	TLC - Civil, Roadway, Hydraulic, Drainage, Project Management	$ 1,042,949.00
	Woolpert - Survey	$ 185,453.00
	HTS - Geotechnical	$ 63,844.00
	Wilson -Traffic	$ 69,838.00
	KCI - SUE	$ 58,734.00
Permitting/Bidding	**Permitting and Bidding Supporting Services**	**$ 80,740.00**
Potential Additional Services	**Total Potential Additional Services**	**$ 136,387.00**
	TLC - Civil, Roadway, Hydraulic, Drainage, Project Management	$ 25,276.00
	Woolpert - survey	$ 14,040.00
	HTS - Geotechnical	$ 15,763.00
	Wilson Engineering -Traffic	$ 73,458.00
	KCI - SUE	$ 7,850.00
Total Contract Value		**$ 1,637,945.00**

3. PROPOSED PROJECT SCHEDULE

The Professional Services for the tasks mentioned shall be completed within **275 business days, see Attachment C,** from the date when a NOTICE TO PROCEEDING ISSUED. The working schedule of 310 business days consists of FIVE (5) project execution phases in accordance with the milestones specified in the Fort Bend County Engineering Design Manual:

1. 30% Design and Submittal Including Preliminary Studies and Conceptual Design
2. 70% Design and Submittal
3. 95% Design and Submittal
4. 100% Design and Submittal
5. Permitting and Bidding Services

ATTACHMENT A

SCOPE OF WORK AND LEVEL OF EFFORT FOR ENGINEERING SERVICES

Humphrey Way, Project # 23411

Mobility Bond Projects 2023, Fort Bend County, Precinct IV

1. EXECUTIVE SUMMARY

TLC Engineering, Inc. is contracted with Fort Bend County as the prime provider to conduct engineering consulting services, Humphrey Way Roadway Design, Project # 23411.

This document outlines the scope of work and LOE for TLC Engineering Inc. consisting of Civil, Roadway, Grading, Pavement, Hydraulic Analysis and Site Studies, Drainage, Flooding Mitigation, as well as review of and coordination with environmental studies and assessments.

Woolpert Inc., HTS Inc Consultants, Wilson Engineering and Construction, PLLC and KCI Technologies, are responsible for Topographic survey, geotechnical investigation, traffic/traffic control and subsurface utility services, respectively. The scope of work for each of the abovementioned subconsultants are presented in the Attachments D, E, F and G in the team proposal document.

2. DESIGN CODE COMPLIANCE

Design should abide by the County, State and National design specifications, design codes and related regulations and standards listed in the following:

- Fort Bend County Engineering Design Manual 2022
- Fort Bend County Drainage Criteria Manual
- Fort Bend County Flood Damage Prevention Regulations
- AASHTO Specifications
- Texas Standard Specifications, 2024
- 2014 Special Provisions/Special Specifications, 2014
- TxDOT Roadway Design Manual
- TxDOT Hydraulic Design Manual (HYD) 2019
- TxDOT Drainage Design Guidelines
- TxDOT Geotechnical Manual
- TxDOT Traffic Design Standards for Signs, Signals, And Markings
- Texas Manual on Uniform Traffic Control Devices (TMUTCD)
- International Building Code (IBC)
- ACI-318, Concrete Design Specifications
- Americans with Disabilities Act
- 2018 International Fire Code
- 2015 International Energy Conservation Code (IECC)
- NFPA 101 - Life Safety Code
- IES Handbook - Illuminating Engineering Society of North America

3. SCOPE OF WORK

The consulting team consists of five engineering firms. The task assignments are presented below.

3.1 TLC Engineering, Inc.

- Management of Engineering Consulting Services
- Roadway Alignment Studies and Design
- Roadway Profile Studies and Design
- Roadway Typical Sections
- Roadway Layout including Proposed Soil Boring Locations
- Design Recommendations for Pavement to Confirm County Proposed Pavement Design
- Pavement Design
- Review of and Coordination with Environmental Studies conducted by a third party
- Hydraulic Analysis and Site Studies
- Flooding Mitigation
- Drainage Design
- Culvert Design on an as-Needed Basis
- Detention Pond or Ditch Layout, whichever is selected
- Detention Pond or Ditch Detail Design, whichever is selected
- Construction Sequence Design and Traffic Control per Selected Construction Sequence
- Review and Affirmation of Designs of Survey, Geotechnical, Traffic and Subsurface Utilities
- Permitting and Bidding Support

3.2 Woolpert Inc. (Proposal Detail for Traffic refers to Attachment-D)

- Level of Site Survey Follows FBC Design Manual, Section 6 and 7
- Survey Scope Considers Capturing 150' for Drainage/Sheet Flow elevation
- ROW Identification
- Developing ROW Acquisition Document
- Provide Roadway Elevation and Contours along the Proposed Roadway Alignment
- Identification of Control Points
- Identification of Utilities including Alignment and Elevation
- Identification of Trees, including Location and Diameter
- Existing Public and Private Properties
- Existing Easements
- Submit Survey Map and Project TOPO
- Potential Service on Additional Survey Requirements

3.3 HTS (Proposal Detail for Traffic refers to Attachment-E)

- Soil Boring
- Soil Test
- Soil Report Presenting Soil Properties pertaining to All aspects
- Design Recommendations to Confirm Pavement Design Approved by the County
- Potential Service on Additional Boring and Test due to Detention Pond Design

3.4 Wilson Engineering & Construction, (Proposal Detail for Traffic refers to Attachment-F)

- Traffic Analysis
- Traffic Light Design, if Applicable
- Signal Analysis
- Sign and Signal Design
- Sign Support Design
- Review of Traffic Control Design per Construction Sequence
- Striping and Markings

- Potential Service on Additional Traffic and Signal Design

3.5 KCI Technologies, (Proposal Detail for SUE refers to Attachment-G)

- Water Line Layout including Alignment and Profile
- Sewer Line Layout including Alignment and Profile
- Potential Utility Conflict Matrix
- Water/Sewer connection with City Systems
- Potential Service on Necessary Utility Relocation Design

4. MILESTONES AND REQUIREMENTS OF ENGINEERING CONSULTING SERVICES

Engineering consulting services on this project shall be executed with Five (5) engineering phases from conceptual design though 30% (including pre-engineering, alternative and value engineering studies), 70%, 95%, 100% designs to engineering supporting services for permitting application and bidding process.

Construction management and construction inspection services were excluded from the Scope of Work. At a later date of project execution, Fort Bend County will select a provider for Construction Management and Construction Inspection Services.

4.1 30% Design and PER including Conceptual Design and Alternative Studies

- Studies on Project Features and Site Constraints
- Site Walk Through Prior to 30% Design
- Studies on Roadway Typical Section Alternatives
- Studies on Alignment Alternatives Intersecting Loop 541
- Studies on Alignment Alternatives per Left Turn Lanes at Loop 541 and Emmanuel King Rd
- Studies on ROW Acquisition pertaining to Different Alignment Alternatives
- Design Coordination Aligning with Preliminary Environmental Analysis and Assessment Report completed by a third party
- Preliminary Hydraulic Analysis and Site Study
- Studies on Flooding Control and Mitigation Alternatives
- Stakeholder Coordination
- Weekly/Biweekly Technical Meetings
- Design Coordination for Selecting Alignment and Typical Section
- Develop Alternative and Value Engineering Study Report
- Develop Roadway Alignment and Profile per Fort Bend County and TxDOT Design Manuals
- Develop Preliminary Engineering Report (PER)
- Follow Fort Bend County 30% design Checklist.
  - ✓ Establish a typical cross section and cross sections in non-standard areas
  - ✓ Determine drainage system needs (drainage report and/or preliminary roadway drainage design)
  - ✓ Positively determine right-of-way acquisition needs
  - ✓ Determine potential conflicts with existing facilities
  - ✓ Identify critical path items
  - ✓ Identify problem areas and potential resolution(s)
  - ✓ Determine permit and regulatory requirements
  - ✓ Prepare a reasonable construction cost estimate
  - ✓ Identify impacts to pipelines by locating the drainage high point at pipeline intersections.

- ✓ 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.

- Follow Fort Bend County Preliminary Engineering Report (PER) Checklist.
  - ✓ Project location and scope of the project
  - ✓ Existing Conditions
  - ✓ Existing Utilities, including potential conflicts
  - ✓ Proposed Roadway Design, highlighting any deviation from applicable design criteria
  - ✓ Existing and Proposed Drainage and Detention
  - ✓ Proposed Right-of-Way
  - ✓ Proposed Traffic Signal, if applicable
  - ✓ Geotechnical Investigation
  - ✓ Environmental Investigation (letter report to be provided to Design Consultant by the County)
  - ✓ Permit and Regulatory Requirements
  - ✓ Cost Estimate
  - ✓ Appendices
    1. PER review meeting minutes
    2. Project Location Map
    3. Alignment Exhibit showing ultimate configuration
    4. Roundabout Exhibit, if applicable
    5. FEMA Flood Insurance Rate Maps (FIRM)
- Delivery of 30% Design Submittal and PER

4.2 70% Design

- Address to Client Review Comments per 30% Submittal
- Further Studies and Coordination with Survey Data and Site Map
- Coordination with LOOP 541 Alignment
- Coordination with Emmanuel King Rd Alignment
- Coordination with the Existing Bridge over Brooks Branch Creek
- ROW Acquisition per Selected Alignment Layout
- Review of Final Report on Environmental Analysis and Assessment
- Update Hydraulic Analysis and Site Studies
- Update Flooding Control and Mitigation Plan
- Finalize Roadway Alignment and Profile Layout
- Finalize Typical Section
- Review and Affirmation of Traffic Lights, Signal and Signs Plan
- Develop General Drainage Plan
- Review and Affirmation of Water/Sewer Line Layout and Connection to City System
- Detention Pond Location and Sizing
- Review and Affirmation of Development of Potential Utility Conflict Matrix
- Develop Culvert Plan Layout
- Stakeholder Coordination
- Initial Draft of Project Report
- Interdisciplinary Design Coordination and QA/QC Management
- Weekly/Biweekly Technical Meetings and Design Coordination
- Draft General Design Notes
- Draft Quantity Summary and Bill or Materials
- Follow Fort Bend County 70% Design Checklist.

- ✓ A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager.
- ✓ The 70 percent submittal shall include the following:
  1. Cover Sheet with a 70 percent interim seal
  2. Index of Sheet
  3. General Notes
  4. Typical and Non-standard Cross Sections
  5. Project Layout Sheet
  6. Survey Control
  7. Right-of-way (Existing and Proposed)
  8. Horizontal Alignment Data
  9. Plan and Profile Sheets (detailed callouts not required at 70 percent)
  10. Drainage Area Map with Hydraulic Calculations
  11. Traffic Control Plan
  12. Signing and Striping Plan
  13. Traffic Signal and Details (if applicable)
  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. Construction 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.
- Delivery of 70% Design Submittal

4.3 95% Design

- Address to Client Review Comments per 70% Submittal
- Technical Meeting for Clearing Design Conflicts
- Incorporate Client and Stakeholder's Preferences and Requirements
- Coordinate Interdisciplinary Design Conflicts
- Finalize ROW Acquisition per Final Alignment Layout
- Update Roadway Alignment and Profile Layout
- Update Typical Section
- Review and Affirmation of Updated Traffic Lights, Signal and Signs Plan
- Review and Affirmation of Updated Traffic Lights, Signal Signs and Sign Support Details
- Update the General Drainage Plan
- Develop Drainage Details Consisting of Gutter, Inlet, Outlet, and Junction Boxes
- Review and Affirmation of Updated Water/Sewer Line Layout
- Review and Affirmation of Updated Water/Sewer Line Connection Details
- Update Pond Design Consisting of Location, Plan Size and Depth
- Develop Pond Design Details Consisting of Connections to City Sewer System
- Updated Finalized Potential Utility Conflict Matrix
- Update Culvert Plan Layout
- Develop Culvert Design Details
- Further Stakeholder Coordination

- Interdisciplinary Coordination to Clear Outstanding Conflicts and Conflicts
- QA/QC Management - Sign-Off QA/QC Matrixes
- Weekly/Biweekly Technical Meetings and Design Coordination
- Update General Design Notes
- Update Quantity Summary and Bill of Materials
- Update Construction Cost Estimate
- Follow Fort Bend County 95% Design Checklist.
  - ✓ A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager.
  - ✓ The 95 percent submittal should be considered complete with 95 percent interim seal, and shall include all the 70 percent requirements plus the following:
  - ✓ Verify earthwork quantities with cross sections at 100-foot intervals.
  - ✓ Standard construction details.
  - ✓ Project manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
  - ✓ KMZ file of current design with proposed right-of-way.
  - ✓ Responses to 70 percent comments
- Delivery of 95% Design Submittal

4.4 100% Design Submittal

- Address to Client Review Comment per 95% Submittal
- Incorporate Client and Stakeholder's Preferences and Requirements
- Further Coordinate Interdisciplinary Design Clashes
- Confirm ROW Acquisition per Final Alignment Layout
- Finalize Excavation Plan pertaining to Complete Site Information
- Finalize Roadway Alignment and Profile Layout
- Finalize Typical Section
- Review and Affirmation of Finalized Traffic Lights, Signal and Signs Plan
- Review and Affirmation of Finalized Traffic Lights, Signal Signs and Sign Support Details
- Finalize General Drainage Plan
- Finalize Drainage Details Consisting of Gutter, Inlet, Outlet, Junction Boxes
- Review and Affirmation of Finalized Water/Sewer Line Layout
- Review and Affirmation of Finalized Water/Sewer Line Connection Details
- Finalize Pond Design Consisting of Location, Plan Size and Depth
- Finalize Pond Design Details Consisting of Connections to City Sewer System
- Review and Affirmation of Finalized Utility Plan Consisting of Power, Gas, Communication Lines
- Finalize Culvert Plan Layout
- Finalize Culvert Design Details
- Final Meeting of Stakeholder Coordination
- Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes
- QA/QC Management - Sign-Off QA/QC Matrixes
- Weekly/Biweekly Technical Meetings and Design Coordination
- Finalize General Design Notes
- Finalize Quantity Summary and Bill of Materials
- Finalize Construction Cost Estimate
- Address to Client Review Comment per 100% Design

- Incorporate Client and Stakeholder's Preferences and Requirements
- Follow Fort Bend County 100% Design Checklist.
  - ✓ Project manual
  - ✓ Construction cost estimate
  - ✓ KMZ file of current design with proposed right-of-way.
  - ✓ Responses to 95 percent comments.
  - ✓ Recommended maximum number of calendar days for construction.
- Wrap-Up and Submit 100% Design Package

4.5 Permitting and Bidding Phase

Team Design Review Meeting
Public Meetings
Stakeholder Meetings
Finalize Engineer's Opinion of Probable Construction Cost
Prepare and Sign QA/QC Matrix and Related Form
Wrap-up 100% Submittal Packages and Bidding Documents
Provide necessary Material and Information Supporting Applications for Permitting
Respond to Questions During Bid Process and Addendum

5. EXECUTION OF PROJECT

5.1 Follow all Applicable Design Codes and Standards

Designs should follow County, State and Federal design specifications, codes, regulations and standards outlined in the section of "Design Code Compliance" in the Project Proposal as well as additional applicable requirements and design criterion set forth for this project.

5.2 Meet Project Specifications

Designs should abide by "Fort Bent County Engineering Design Manual", project specifications, and requirements, specified in the project specifications or ordered by Fort Bend County during execution of the project.

5.3 Work With County PM and GEC Managers

Work with the County Managers and GEC Managers on key items, especially in resolving potential deadlocks and obstructions. Provide alternative recommendations and try to meet the County's preferences on resolving engineering challenges.

5.4 Take into Accounts Concerns from Diverse Stakeholders

Conduct early and effective coordination with diverse stakeholders, carefully listen to their concerns and suggestions, and try to meet their preferences on condition that the design goals, criterion, budget, and project schedule are met.

5.5 Coordinate Design with Different Disciplines

Effective project management shall be realized through managing the task leaders and subconsultant managers and key professionals.

Call for weekly or Biweekly meetings regularly to have every professional involved in the project to be aware of his/her tasks to be done, schedule to be met and outstanding issues exist, and conflicts or clashes to be cleared up in a timely manner.

5.6 QA/QC Management to Provide High Quality of Design

Effectively manage the design with periodic coordination and design review to maintain high quality of design.

Any design errors, conflicts or failures to meet the Design Specifications and County Requirements should be resolved immediately without delay.

- Design and review should follow a procedure through three level review-check process.
- Mutual check and QA/QC matrix sign off between the designer and the reviewer.
- Squad check or disciplinary review while the discipline manager or task leader and all parties should sign off the QA/QC matrix.
- Final review and check, the task leader and discipline manager should further review their design sheet and ensure that outstanding issues or conflicts are cleared up before submitting the design to the Project Manager. After the project manager and his/her representatives review and approve the design, then the project manager, task leader and discipline manager sign the QA/AC matrix finally.

5.7 Control Expenditure and Project Budget

The project manager, task leaders, discipline managers should control the project expenditure, and the time spent to control project expense and budget.

5.8 Work on the Project Schedule

The entire team should be well organized, design tasks should be wisely assigned, design quality and process should be effectively managed for submitting high quality design in time in each of the design phases.

ATTACHMENTS

Attachment-A Scope of Work for Engineering Services _ TLC Engineering, Inc.
Attachment-B Manhour and Fee Estimate
Attachment-C Proposed Project Schedule
Attachment-D Scope of Work for Topographic Survey Services _ Woolpert, Inc.
Attachment-E Scope of Work for Geotechnical Investigation Services_ HTS Inc Consultants
Attachment-F Scope of work for Traffic Services _ Wilson Engineering and Construction
Attachment-G Scope of Work for Subsurface Utility Services _ KCI Technologies
Attachment-H Site Map Image
Attachment-I Proposed Typical Section
Attachment-J Preliminary Roadway Layout
Attachment-K Preliminary Roadway Layout -Image

ATTACHMENT - B
Manhour and Fee Estimate
Humphrey Way Roadway Design,
Project # 23411 - Fort Bend County

Monday, February 17, 2025

ITEM NO.	Project: Fort Bend County, Humphrey Way_ Project No. 23411 Prepared By: Wanzhi LI, Ph.D., PE, General Manager, TLC	No. Sheets	Principal Director	Project Manager	Project Engineer	Senior Engineer	Design Engineer	Senior Designer	Junior Designer	Clerical Admin	Working Hours	Tasks and Fees	Work Category
	TLC - Civil, Roadway, Hydraulic, Drainage, Project Management	1	$ 258.00	$ 245.00	$ 231.00	$ 207.00	$ 186.00	$ 96.00	$ 84.00	$ 85.00	Overall Average Rate	$ 154.62	$ 164.30
	Woolpert - Survey (Detailed Estimate See Attachment-D)	2	$ 300.00	$ 248.00	$ 235.00	$ 132.00	$ 230.00	$ 140.00					$ 137.58
	HTS - Geotechnical (Classified Rate See Attachment-E)	3											$ 70.78
	Wilson Engineering -Traffic (Detailed Estimate See Attachment-F)	4	$334.00	$314.00	$250.00	$250.00	$206.00	$170.00	$135.00				$ 210.99
	KCI - SUE (Detailed Estimate See Attachment-E)	5		$ 310.00		$ 255.00	$ 135.00	$ 137.00		$ 92.00			$ 225.90
CATEGORY-I	BASIC SERVICES												
	TASK AND FEE ALLOCATIONS		HOURS								TOTAL	TOTAL	
BREAKDOWN	Total Hours and Fees on Basic Engineering Services	276	103	978	804	880	880	1,396	1,254	49	9,189	$ 1,420,818.00	8.51%
	TLC - Civil, Roadway, Hydraulic, Drainage, Project Management	276	103	978	804	880	880	1396	1254	49	6348	$ 1,042,949.00	73.4%
	Woolpert - Survey (Task Classification see Attachment - D)										1348	$ 185,453.00	13.1%
	HTS - Geotechnical (Task Classification see Attachment - E)										902	$ 63,844.00	4.5%
	Wilson Engineering -Traffic (Task Classification see Attachment - F)										331	$ 69,838.00	4.9%
	KCI - SUE (Task Classification See Attachment-H)										260	$ 58,734.00	4.1%
Phase-1.1	Phase-1.1 _ Pre-Engineering Studies & Conceptual Design												
1.10	Subtotal of Pre-Engineering Studies and Conceptual Design	22	21	74	52	60	56	84	64	6	417	$ 72,346.00	
1.11	Kick Off Meeting		4	4	4	4					16	$ 3,764.00	1
1.12	Studies on Project Features and Site Constraints		2	8		8	8	16			42	$ 7,156.00	1
1.13	Studies on Roadway Typical Section Alternatives	3	1	8	8		8		12	2	39	$ 6,732.00	1
1.14	Studies on Alignment Alternatives Intersecting with FM 541	2	1	6	4	12	8	18			49	$ 8,352.00	1
1.15	Studies on Alignment Alternatives Intersecting with Emmanuel King Road	2		6		12	8		12		38	$ 6,450.00	1
1.16	Studies on Alternatives per Approach Driveway to Communities	2		6	8		8		12		34	$ 5,814.00	1
1.17	Studies on ROW Acquisition per Different Alignment Alternatives	1	1	8			8	8	8		33	$ 5,146.00	1
1.18	Preliminary Roadway Layout and Proposed Boring Logs	12		8	8	12		26	20		74	$ 10,468.00	1
1.19	Techical Meeting per Value Engineering Studies		4	4	4	4					16	$ 3,764.00	1
1.20	Develop Preliminary Engineering Report (PER)			12	12			16		4	44	$ 7,588.00	1
1.21	Weekly/Biweekly Technical Meetings		4	4		4	4				16	$ 3,584.00	1
1.22	PER Meeting for Selecting Alignment and Typical Section		4		4	4	4				16	$ 3,528.00	1
Phase -1.2	Phase-1.2 _ 30% Design												
1.20	Subtotal of 30% Design Submittal	70	21	226	140	160	188	298	286	10	1,329	$ 214,698.00	
1.21	Technical Meeting for Determining Alignment Layout and Typical Section		4	4	4	4					16	$ 3,764.00	1
1.22	Complete TOPO _ Must be Submitted within Seven Weeks after the Project Starts											$ -	2
1.23	Review, Coordinate and Study Survey Data and Site Map			8			12	12	8		40	$ 6,016.00	1
1.24	Site Walk Through Prior to 30% Design			4	4	4	4				16	$ 3,476.00	1
1.25	Confirmation ROW Acquisition per Selected Alignment Layout	2	1	4		8		12	8		33	$ 4,718.00	1
1.26	Soil Report _ Must be Submitted within Eight Weeks after the Project Starts											$ -	3
1.27	Review, Coordinate and Study Preliminary Soil Report			8	16		12	8	8		52	$ 9,328.00	1
1.28	Develop Roadway Alignment	12		8	12		12	24	24		80	$ 11,284.00	1
1.29	Develop Typical Section	3		8	16		16	16	16		72	$ 11,512.00	1
1.30	Develop Roadway Profile	12	1	12		12		24	24		73	$ 10,002.00	1
1.31	Review, Coordinate Preliminary Traffic, Sign and Signal Plan			8	8		8	8	8		40	$ 6,736.00	1
1.32	Review, Coordinate and Affirmation of Environmental Studies and Assessment			4		8					12	$ 2,636.00	1
1.33	Hydraulic Analysis			8	8	36			16		68	$ 12,604.00	1
1.34	Develop General Drainage Plan	12	2	12	12			30	30		86	$ 11,628.00	1
1.35	Develop General Drainage Facility Detail including Slot, Inlet and Outlet Wells/Ducts	3		8		12	8	24	20		72	$ 9,916.00	1
1.36	Review, Coordinate Subsurface Utility Plan	6		8	8	8			8		32	$ 6,136.00	1
1.37	Studies on Alternatives for furnishing Detention Pond or Ditches per Flood Relief	2	1	8		12	8	12	8		49	$ 8,014.00	1
1.38	Develop Pond or Ditch & Culvert Plans consisting of Location and Size	6		8	8		16	20	20		72	$ 10,384.00	1
1.39	Review, Coordinate Subsurface Utility Conflict Matrix			8		8		8	8		32	$ 5,056.00	1
1.40	Develop Preliminary Construction Sequence and Traffic Control Plan	12	1	12	12		12	20	20		77	$ 11,802.00	1
1.41	Stakeholder Coordination		4	4	4	4					16	$ 3,764.00	1
1.42	Initial Draft of Preliminary Engineering Report (PER)			20		16		8		2	46	$ 9,150.00	1
1.43	Weekly/Biweekly Technical Meetings		4		4	4		4			16	$ 3,168.00	1
1.44	Draft General Design Notes			30			20	16	8	2	76	$ 13,448.00	1
1.45	Draft Quantity Summary and Bill of Materials		1	4	8	12	36		16		77	$ 13,610.00	1
1.46	Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes			4		12	8	24	16		64	$ 8,600.00	1
1.47	Finalize and Submit Preliminary Engineering Report			16			16	8		2	42	$ 7,834.00	1
1.48	Complete and Submit 30% Design Package		2	8	16			20	20	4	70	$ 10,112.00	1
Phase -2	Phase-Two _ 70% Design												

ATTACHMENT - B
Manhour and Fee Estimate
Humphrey Way Roadway Design,
Project # 23411 - Fort Bend County

2.10	**Subtotal of 70% Design Submittal**	70	16	276	220	272	288	350	316	13	1755	$ 321,355.00	
2.11	Address to Client Review Comments per 30% Submittal		2	8	12		12	12	12	2	60	$ 9,810.00	1
2.12	Address to Client Comments per PER and Finalize PER			8	8	8		16			40	$ 7,000.00	1
2.13	Review, Studies, and Coordination on Finalized Survey Data and Site TOPO		2	8	12	12		8	8		50	$ 9,172.00	1
2.14	Technical Coordination Meetings for Clearing Conflicts or Clashes		4	4	4		4				16	$ 3,680.00	1
2.15	Develop Intersection Layout per TxDOT and City Specifications at Loop 541	1	1	8		4	12	12	12	1	50	$ 7,523.00	1
2.16	Develop Intersection Layout per TxDOT/City Specifications at Emmanuel King Rd	1		8	8	12		16			44	$ 7,828.00	1
2.17	Incorporate Client and Stakeholder's Preferences and Requirements			8	8	8	8	16	16	2	66	$ 10,002.00	1
2.18	Modify/Revise ROW Acquisition per Final Alignment Layout		1	8	8	8		8	8		41	$ 7,162.00	1
2.19	Modify/Revise Roadway Alignment and Profile Layout	12		12	12	12	12	20	20		88	$ 14,028.00	1
2.20	Modify/Revise, Update Typical Section	3		8	12		12	16	16		64	$ 9,844.00	1
2.21	Review and Coordination of Updated Traffic Lights, Signal and Signs Plan			8		8	8	8	8		40	$ 6,544.00	1
2.22	Review, Coordinate and Affirmation of Environmental Studies and Assessment			8			8	8	8		36	$ 6,572.00	1
2.23	Review and affirmation of Updated Traffic Plan, Lights, Signal Sign Support Details			8	8	8	8	8	12		52	$ 8,728.00	1
2.24	Finalize Hydraulic Analysis			8	12	8	36	12			76	$ 14,236.00	1
2.25	Modify/Revise General Drainage Plan	6		8	8	16	16	16	16		80	$ 12,976.00	1
2.26	Modify/Revise Drainage Facility Detail Designs	4	2	8	8	12	16	16	16		78	$ 12,664.00	1
2.27	Review and Affirmation Modified/Revised Subsurface Utility, Water/Sewer, Line Layout			8	8		8	12	12		48	$ 7,456.00	1
2.28	Review and Affirmation of Modified Subsurface Utility Design Details		1	8		12	8	12	12		53	$ 8,350.00	1
2.29	Revise/Modify Construction Sequence and Traffic Control Plan	12	1	16	16		16	16	16		81	$ 13,730.00	1
2.30	Modify/Revise Pond or Ditch Design Plan	2		8	8	12	8	16	16		68	$ 10,660.00	1
2.31	Modify/Revise Pond Connection Details	2		12	4	16		16	16		64	$ 10,056.00	1
2.32	Review Coordinate Updated Subsurface Utility Plan	3		8	8	8		4			28	$ 5,848.00	1
2.33	Review, Coordinate Update Potential Utility Conflict Matrix	2		8		8	8	4			28	$ 5,488.00	1
2.34	Modify/Revise Ditch/Culvert Plan Layout	6		12	16	16	16	16	16	2	94	$ 15,974.00	1
2.35	Modify/Revise Culvert and Ditch Design Details	2	1	12	12		12	16	16		69	$ 11,082.00	1
2.36	Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes	12	1	12	8	12	12	20	20		85	$ 13,362.00	1
2.37	Modify/Revise Construction Sequence and Traffic Control Plan			12	8	12	8	16	16		72	$ 11,640.00	1
2.38	QA/QC Per County/TxDOT Checklist - Sing-Off QA/QC Matrixes per 70% Submittal		2	8	12	12	12	8	8	4	66	$ 11,744.00	1
2.39	Weekly/Biweekly Technical Meetings and Design Coordination			8	4	8		4			24	$ 4,924.00	1
2.40	Update General Design Notes	1		12	8		16	8	8		52	$ 9,204.00	1
2.41	Update Quantity Summary and Bill of Materials	1		8	8	24	12	6			58	$ 11,584.00	1
2.42	Update Construction Cost Estimate			8		36			8	2	54	$ 10,254.00	1
2.43	Complete Design Package and Submit 70% Design		2	12	12		12	20	20	2	80	$ 12,230.00	1
Phase -3	**Phase-3 _ 95% Design Submittal**												
3.10	**Subtotal of 95% Design Submittal**	64	23	216	220	152	200	380	348	6	1545	$ 244,560.00	
3.11	Address to Client Review Comments per 70% Submittal		2	12		12		16	16	2	60	$ 8,990.00	1
3.12	Technical Coordination Meetings for Clearing Conflicts or Clashes per 70% Submittal			4	4	4	4	4	4		24	$ 4,196.00	1
3.13	Incorporate Client and Stakeholder's Preferences and Requirements per 70% Submittal			8	8		8	8			32	$ 6,064.00	1
3.14	Finalize ROW Acquisition per Final Alignment Layout			4	8	8					20	$ 4,484.00	1
3.15	Update Roadway Alignment and Profile Layout	12		12	12		12	24	24		84	$ 12,264.00	1
3.16	Update Typical Section	3				8	8	16	8		40	$ 5,352.00	1
3.17	Review Updated Traffic Lights, Signal and Signs Plan			4	8	8	8	16	16		60	$ 8,852.00	1
3.18	Review Updated Traffic Lights, Signal and Signs Support Detail Design			4	8	8	8	16	16		60	$ 8,852.00	1
3.19	Update General Drainage Plan	6	2	12	12		12	16	16		70	$ 11,340.00	1
3.20	Updated Drainage Facility Detail Designs	4		8	8	12	8	16	16		68	$ 10,660.00	1
3.21	Review Updated Subsurface Utility Line Layout	3		8	8		8	20	20		64	$ 8,896.00	1
3.22	Review Updated Subsurface Utility Design Details			8	8	12	8	20	20		76	$ 11,380.00	1
3.23	Review Updated Water/Sewer Line Connection to City System			8	8	12	8	20	20		76	$ 11,380.00	1
3.24	Review Updated Utility Conflict Matrix	2		4	8			8			21	$ 3,854.00	1
3.25	Update Culvert Plan Layout	2	1	4	8		8	16	16		60	$ 9,208.00	1
3.26	Update Culvert Design Details	6	4	8	8	8		16	16		60	$ 9,320.00	1
3.27	Develop Culvert and Ditch Connection Flowing to Major Creek or Pond	6	4	4	12		16	8	8	2	54	$ 9,374.00	1
3.28	Develop Construction Sequence and Traffic Control Plan	2		12	8	8		24	24		73	$ 10,042.00	1
3.29	Develop Construction Sequence and Traffic Control Details	12	1	8	8		8	8			32	$ 6,064.00	1
3.30	Update Pond or Ditch Design Plan	2		12	8	12	12	16	16		76	$ 12,384.00	1
3.31	Update Pond Connection Details	2		12	16		16	16	16		76	$ 12,492.00	1
3.32	Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes		1	8	8	8		16	16		57	$ 8,602.00	1
3.33	QA/QC Per County/TxDOT Checklist - Sing-Off QA/QC Matrixes per 95% Submittal			4	4	12	8	16	16		60	$ 8,756.00	1
3.34	Weekly/Biweekly Technical Meetings		4	4	4	4					16	$ 3,764.00	1
3.35	Design Coordination Among Disciplines		2	12	12		16	16	16		74	$ 12,084.00	1
3.36	Update General Design Notes	1		8		8	8		8		32	$ 5,776.00	1
3.37	Update Quantity Summary and Bill of Materials	1		2	4	4		4			14	$ 2,626.00	1
3.38	Update Construction Cost Estimate			2	4	4		4			14	$ 2,626.00	1
3.39	Complete Design Package and Submit 95% Design		2	16	16		16	20	20	2	92	$ 14,878.00	1

ATTACHMENT - B
Manhour and Fee Estimate
Humphrey Way Roadway Design,
Project # 23411 - Fort Bend County

Phase -4	Phase-4_ 100% Design Submittal												
4.10	**Subtotal of 100% Design Submittal**	50	18	162	140	216	136	248	220	12	1152	$ 189,990.00	
4.11	Address to Client Review Comments per 95'% Submittal		1	8	8		8	8	8		41	$ 6,994.00	1
4.12	Technical Coordination Meetings for Clearing Conflicts or Clashes per 95'% Submittal		1	4	4	4				4	17	$ 3,330.00	1
4.13	Finalize Roadway Alignment and Profile Layout	12		8		12		16	16		52	$ 7,324.00	1
4.14	Finalize Typical Section	3		4	8	8	16	16	16		68	$ 10,340.00	1
4.15	Review Finalized Traffic Lights, Signal and Signs Plan	6		4	8	8		12	12		44	$ 6,644.00	1
4.16	Review Finalized Traffic Lights, Signal and Support Design Details			4	8		12	8	8		40	$ 6,500.00	1
4.17	Finalize Hydraulic Analysis	4	2	8		36		8			54	$ 10,696.00	1
4.18	Finalize General Drainage Plan			8	12	12		16	16		64	$ 10,096.00	1
4.19	Finalize Drainage Facility Detail Designs	3		8	8	12	12				40	$ 8,524.00	1
4.20	Review Finalized Subsurface Utility (Water/Sewer Line) Layout			4	4	8			8		24	$ 4,232.00	1
4.21	Review Finalized Subsurface Utility Design Details		1	8	4	8	8	8			37	$ 7,054.00	1
4.22	Review Finalized Potential Utility Conflict Matrix			8	8	8	8	8			40	$ 7,720.00	1
4.23	Finalize Construction Sequence and Traffic Control Plan			4		8		8			20	$ 3,404.00	1
4.24	Finalize Pond or Ditch Design Plan	2	1	8	8	8		16	16		57	$ 8,602.00	1
4.25	Finalize Pond Connection Details	2	4		4	4	4				16	$ 3,528.00	1
4.26	Finalize Ditch/Culvert Plan Layout	3		8		16		16	16		56	$ 8,152.00	1
4.27	Finalize Ditch/Culvert Design Details	3	1	6	8	12	12	16	12		67	$ 10,836.00	1
4.28	Finalize General Design Notes			8	8	16		4		2	38	$ 7,674.00	1
4.29	Finalize Bill of Materials			8	8	8	12		8		44	$ 8,368.00	1
4.30	Finalize Cost Estimate Report			8	8		12	8	4		40	$ 7,144.00	1
4.31	Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes	12			4	8	8	12	16		48	$ 6,564.00	1
4.32	QA/QC Per County/TxDOT Checklist - Sign-Off QA/QC Matrixes per Final Design		1	4	4		4	8	8		29	$ 4,346.00	1
4.33	Weekly/Biweekly Technical Meetings and Design Coordination			8	8	8	8	12	8		52	$ 8,776.00	1
4.34	Address to Client Review Comment per 100% Design		2	8				16	16	2	44	$ 5,526.00	1
4.35	Final Review and Coordination to Clear All Outstanding Design Issues per Client Demands		2	8	8			12	12	2	44	$ 6,654.00	1
4.36	Complete Design Package and Submit 100% Design		2	8		12	12	20	20	2	76	$ 10,962.00	1
Phase -5	Phase-5_ Permitting and Bidding Phase												
5.10	**Subtotal of Permitting and Bidding Phase**		5	64	92	68	72	92	72	2	467	$ 80,740.00	
5.11	Team Design Review Meeting, Public Meetings, Stakeholder Meetings		1	4	4		4				13	$ 2,906.00	1
5.12	Incorporate Joint-Design Plans			16	16	8	16	24	12		92	$ 15,560.00	1
5.13	Finalize Signed & Sealed Plans, Specifications, General Provisions, Etc.		1	8	24		24	24	12	2	95	$ 15,708.00	1
5.14	Finalize Engineer's Opinion of Probable Construction Cost			8		16		24	12		60	$ 8,584.00	1
5.15	Update Change of Service Form		1		8		8		16		33	$ 4,938.00	1
5.16	Prepare QA/QC Matrix Sign Off and Related Form			12	24	24	12	12	12		96	$ 17,844.00	1
5.17	Wrap-up 100% Submittal Packages and Bidding Documents		1	4	4		4		4		17	$ 3,242.00	1
5.18	Develop Permitting Application Documents			4	4	16		4			28	$ 5,600.00	1
5.19	Respond to Questions During Bid Process and Addendum		1	4	4		4		4		17	$ 3,242.00	1
5.20	Bid Tabulation and Contractor Bid Review			4	4	4		4			16	$ 3,116.00	1
CATEGORY-2	**CONSTRUCTION SERVICES**												
	EXCLUDED IN THE PROPOSAL												
Estimate Budget	**BASIC AND PERMITTING/BIDDING SERVICES**												
	TOTAL FOR BASIC SERVICES	276	103	978	804	880	880	1,396	1,254	49	9,189	$ 1,420,818.00	8.51%
	TOTAL FOR PERMITTING/BIDDING SERVICES		5	64	92	68	72	92	72	2	467	$ 80,740.00	0.48%
$ 16,700,000	**TOTAL FOR BASIC AND PERMITTING/BIDDING SERVICES**											$ 1,501,558.00	8.99%
CATEGORY-3	**PHASE-6, POTENTIAL ADDITIONAL SERVICES**												
	Total Hours and Fees on Potential Additional Services	25	2	59	36		126	258	24		837	$ 136,387.00	100.00%
Potential Additional Services	**TLC - Civil, Roadway, Hydraulic, Drainage, Project Management**	4		20	36		12	40	24		152	$ 25,276.00	18.5%
	Woolpert - Survey										90	$ 14,040.00	10.3%
	HTS - Geotechnical										222	$ 15,763.00	11.6%
	Wilson Engineering -Traffic	21	2	39			114	218			373	$ 73,458.00	53.9%
	KCI - SUE											$ 7,850.00	5.8%
Phase -6.1	Phase-6.1 Potential Additional SUE Services												
6.10	**Subtotal of Additional SUE Services**	3		4	12		12	4			32	$ 14,218.00	
6.11	Non-Destructive Test Holes/Mobilization For Level A service											$ 7,850.00	5
6.12	Review of Non-destructive Holes/Mobilization Level Services	3		4	12		12	4			32	$ 6,368.00	1
Phase -6.2	Phase-6.2 Potential Additional Traffic Services												
6.20	**Subtotal of Additional Traffic Services**	21	2	47	12		114	230	12		417	$ 80,350.00	
6.21	TRAFFIC SIGNAL DESIGN - FM 2919 AT EMMANUEL KING/Loop 541	21	2	39			114	218			373	$ 73,458.00	4
6.22	Review Traffic Lights, Signal and Signs Plan and Design Details			8	12			12	12		44	$ 6,892.00	1

Prime Provider: TLC Engineering, Inc.

ATTACHMENT - B
Manhour and Fee Estimate
Humphrey Way Roadway Design,
Project # 23411 - Fort Bend County

Phase -6.3	**Phase-6.3 Potential Additional Geotechnical Services**											$ 15,763.00	
6.30	**Subtotal of Additional Geotechnical Services**	1									1	$ 15,763.00	3
6.31	Additional Borings for Detention Pond Design											$ -	1
6.32	Addional Testing for Detention Pond Samples	1											
Phase -6.4	**Phase-6.4 Potential Additional Survey Services**										126	$ 20,432.00	
6.40	**Subtotal of Additional Survey Services**			4	12		8	12			30	$ 4,680.00	2
6.41	One Parcel										20	$ 3,120.00	2
6.42	Detention Pond Survey										40	$ 6,240.00	2
6.43	SUE LVL "A" POTHOLE(1 HOLE)			4	12		8	12			36	$ 6,392.00	1
6.44	Review Additional Survey Map and Data												
	TOTAL FOR POTENTIAL ADDITIONAL SERVICES											$ 130,763.00	0.78%

Summary of Consulting Fee Estimate

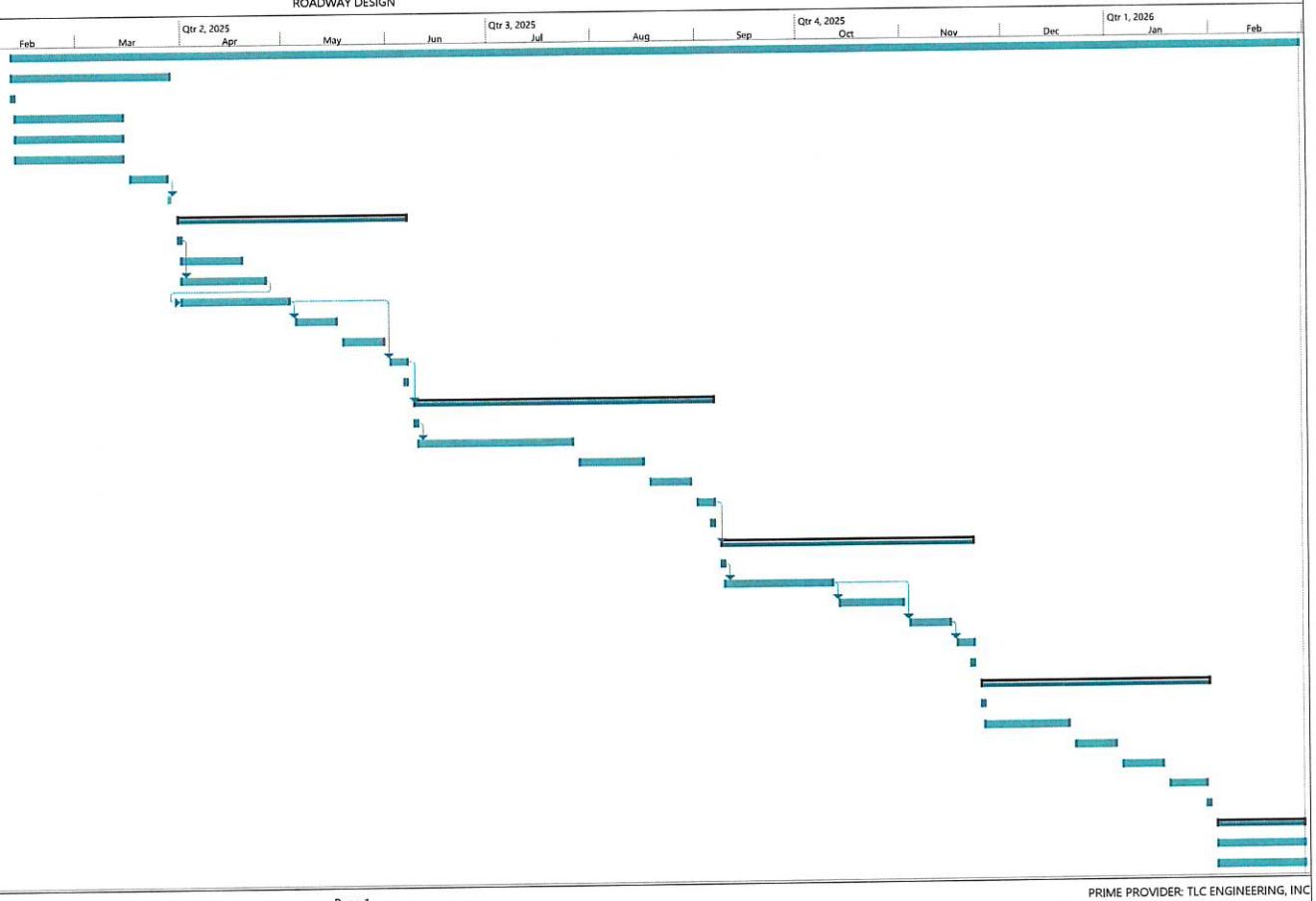
Category	Firm	Total Construction Budget Amount	% of Share	% of Budget
Basic Services	**Total Basic Services**	**$ 1,420,818.00**	**100.00%**	**8.51%**
	TLC - Civil, Roadway, Hydraulic, Drainage, Project Management	$ 1,042,949.00	73.40%	6.25%
	Woolpert - Survey	$ 185,453.00	13.05%	1.11%
	HTS - Geotechnical	$ 63,844.00	4.49%	0.38%
	Wilson -Traffic	$ 69,838.00	4.92%	0.42%
	KCI - SUE	$ 58,734.00	4.13%	0.35%
Permitting/Bidding	**Permitting and Bidding Supporting Services**	**$ 80,740.00**	**5.68%**	**0.48%**
Potential Additional Services	**Total Potential Additional Services**	**$ 136,387.00**	**100.00%**	**0.82%**
	TLC - Civil, Roadway, Hydraulic, Drainage, Project Management	$ 25,276.00	18.53%	0.15%
	Woolpert - survey	$ 14,040.00	10.29%	0.08%
	HTS - Geotechnical	$ 15,763.00	11.56%	0.09%
	Wilson Engineering -Traffic	$ 73,458.00	53.86%	0.44%
	KCI - SUE	$ 7,850.00	5.76%	0.05%
Total Contract Value		**$ 1,637,945.00**		**9.81%**

PROJECT: #23411
HUMPHREY WAY
FORT BEND COUNTY, TX

ATTACHMENT - C
PROPOSED PROJECT SCHEDULE
ENGINEERING CONSULTING
ROADWAY DESIGN

START DATE: 2/10/2025
END DATE" 2/27/2026

ID	Task Name	Duration	Start	Finish
1	**HUMPHREY WAY PROJECT SCHEDULE**	**275 days**	**Mon 2/10/25**	**Fri 2/27/26**
2	**Pre-Engineering and Conceptual Design**	**35 days**	Mon 2/10/25	Fri 3/28/25
3	Kick Off Meeting	1 day	Mon 2/10/25	Mon 2/10/25
4	Studies on Alignment Alternatives	24 days	Tue 2/11/25	Fri 3/14/25
5	Site Survey and Survey Map Development	24 days	Tue 2/11/25	Fri 3/14/25
6	Boring and Test	24 days	Tue 2/11/25	Fri 3/14/25
7	Coordination on Roadway Alternatives	9 days	Mon 3/17/25	Thu 3/27/25
8	Meeting for Roadway Layout Selection	1 day	Fri 3/28/25	Fri 3/28/25
9	**30% DESIGN AND SUBMITTAL**	**50 days**	**Mon 3/31/25**	**Fri 6/6/25**
10	Client and Stakeholder Coordination	1 day	Mon 3/31/25	Mon 3/31/25
11	Finalize Project TOPO - Must Submit in Time	14 days	Tue 4/1/25	Fri 4/18/25
12	Finalize Soil Report - Must Submit in Time	19 days	Tue 4/1/25	Fri 4/25/25
13	Develop and Submit 30% Design	24 days	Tue 4/1/25	Fri 5/2/25
14	30% Design Review by Client	10 days	Mon 5/5/25	Fri 5/16/25
15	Address to 30% Review Comments	10 days	Mon 5/19/25	Fri 5/30/25
16	QA/QC per County/TxDOT Check List	5 days	Mon 6/2/25	Fri 6/6/25
17	Wrap Up 30% Design Submittal	1 day	Fri 6/6/25	Fri 6/6/25
18	**70% DESIGN AND SUBMITTAL**	**65 days**	**Mon 6/9/25**	**Fri 9/5/25**
19	Client and Stakeholder Coordination	1 day	Mon 6/9/25	Mon 6/9/25
20	70% Design Development and Submittal	34 days	Tue 6/10/25	Fri 7/25/25
21	70% Design Review by Client	15 days	Mon 7/28/25	Fri 8/15/25
22	Address to 70% Review Comments	10 days	Mon 8/18/25	Fri 8/29/25
23	QA/QC per County/TxDOT Check List	5 days	Mon 9/1/25	Fri 9/5/25
24	Wrap Up 70% Design Submittal	1 day	Fri 9/5/25	Fri 9/5/25
25	**95% DESIGN AND SUBMITTAL**	**55 days**	**Mon 9/8/25**	**Fri 11/21/25**
26	Client and Stakeholder Coordination	1 day	Mon 9/8/25	Mon 9/8/25
27	95% Design development and Submittal	24 days	Tue 9/9/25	Fri 10/10/25
28	95% Design Review by Client	15 days	Mon 10/13/25	Fri 10/31/25
29	Address To 60% Review Comments	10 days	Mon 11/3/25	Fri 11/14/25
30	QA/QC per County/TxDOT Check List	5 days	Mon 11/17/25	Fri 11/21/25
31	Wrap Up 95% Design Submittal	1 day	Fri 11/21/25	Fri 11/21/25
32	**100% DESIGN AND SUBMITTAL**	**50 days**	**Mon 11/24/25**	**Fri 1/30/26**
33	Client and Stakeholder Coordination	1 day	Mon 11/24/25	Mon 11/24/25
34	100% Design Development	19 days	Tue 11/25/25	Fri 12/19/25
35	100% Submittal For Client Review	10 days	Mon 12/22/25	Fri 1/2/26
36	Address 100% Review Comments	10 days	Mon 1/5/26	Fri 1/16/26
37	QA/QC per County/TxDOT Check List	9 days	Mon 1/19/26	Thu 1/29/26
38	Complete 100% Design Package	1 day	Fri 1/30/26	Fri 1/30/26
39	**BID PROCESS & PERMITTING**	**20 days**	**Mon 2/2/26**	**Fri 2/27/26**
40	Prepare for Permitting Documents	20 days	Mon 2/2/26	Fri 2/27/26
41	Prepare for Bidding Document	20 days	Mon 2/2/26	Fri 2/27/26



ATTACHMENT - D

WOOLPERT

December 23, 2024

Alan Moore, M.S., E.I.T.
Senior Consulting Engineer
8204 Westglen Dr.
Houston, TX 77063

via email: AMoore@tlceng.com

Re: **HUMPREY WAY EXTENSION IN THE TOWN OF KENDLETON, FORT BEND COUNTY, TEXAS**

Dear Mr. Moore:

Please accept this as Woolpert's fee proposal to perform professional surveying services on the above captioned project. Survey service on this project includes a Topographic Survey (Cat. 6, Cond. II), ROW/Topo Maps (Cat. 1B, Cond. II), Proposed ROW Acquisition (Cat. 1B, Cond. II) and Survey Control Maps per Survey requirements specified in the Engineering Design Manual and Mobility Bond Projects 2023 of Fort Bend County. The detailed summary of the level of effort estimated is shown in Appendix A. The project area is shaded in red in Appendix B. The primary scope to be provided is shown below:

PRIMARY SCOPE OF SURVEY SERVICES

Phase-1.1 _ Pre-Engineering Studies & Conceptual Design ESTIMATED LUMP SUM FEE: $19,454

1.10 Right of Entry (ROE) Letters (25 Tracts)

1.11 Woolpert will draft a ROE for each property owner along the route survey that will need to be accessed for survey.

1.12 Woolpert will mail out the ROE and put together a ROE spreadsheet with all properties associated and the owners and status of the ROE for each.

1.13 Woolpert will scan all received ROE Letters and save them for records and will provide them with to Fort Bend County (FBC) at the end of the survey.

1.14 Establish Horizontal and Vertical Control Datum

1.15 Establish Horizontal and Vertical Control Datum, with specified coordination of Texas State Plane Coordinate System, with specified coordination of Zone, NAD, ITRF, NAVD.

1.16 GPS observe control (RTK), UEI control, NGS control, FBC Control and HGCSD control if found within the project area.

1.17 GPS observe control (Static), UEI control, NGS control, FBC Control and HGCSD control if found within project area.

1.18 Woolpert will run conventional levels through UEI control.

1.19 Woolpert will provide Project NGS control, FBC control and HGCSD control with published versus as observed comparison if found within project area.

Phase-1.2 30% Design and PER **ESTIMATED LUMP SUM FEE: $70,199**

1.20 Topographic Survey from FM 541 Northward to Emmanuel King Road, (Approx. 4,250 LF)

1.21 Standard Topographic survey within the ROW limit starts with 120' and ends with 100' cross sections along route survey.

1.22 The Topographic Survey will extend up the side streets, from 120 feet to 100 feet starts at FM 541 frontage road along proposed Humphrey Way and ends at Emmanuel King Road.

1.23 The Topographic Survey will extend 15' beyond the proposed ROW where possible.

1.24 Place 811 ONE CALL and all locates will be surveyed in.

1.25 Woolpert will hand-cut the brush and tree line to acquire 100' to 120' cross.

1.26 Woolpert will coordinate with Geotech firm to tie in up to 100' to 120' boreholes.

1.27 Topographic Survey from Proposed Humphrey Way to the Creek, (Approx. 2,200 LF)

1.28 Standard Topographic survey within the ROW limit 100' cross sections along route survey.

1.29 The Topographic Survey will extend up the side streets, from Proposed Humphrey Way Westward to the Creek within the 100 feet ROW along Emmanuel King Road.

1.30 The Topographic Survey will extend 15' beyond the proposed ROW where possible.

1.31 Place 811 ONE CALL and all locates will be surveyed in.

1.32 Woolpert will hand-cut the brush and tree line to acquire 100' cross.

1.33 Woolpert will coordinate with Geotech firm to tie in up to 10 boreholes.

Phase-2 70% Design **ESTIMATED LUMP SUM FEE: $64,477**

2. 10 CAD Services (Utility Base Plan and Profile)

2.11 Woolpert will perform private and public Utility Research.

2.12 Existing Topo/ROW Survey Maps (25 Tracts)

2.13 Provide Category 1B, Condition II (Topo/ROW Maps) along project limits.

2.14 Survey Control Maps

2.15 Provide Generate Survey Control Maps for the project area.

Phase-3 95% Design Submittal **ESTIMATED LUMP SUM FEE: $31,323**

3.10 Proposed ROW Parcel Acquisition (11 Tracts)

3.11 Provide Category 1B, Condition II, ROW Parcel Acquisition.

3.12 Woolpert will provide Limited Title Report for all current property owners at the time of survey.

3.13 Woolpert will set all parcel corners prior to signing and sealing parcel acquisition plats.

3.14 Woolpert will provide parcel plats and metes and bounds for all parcels.

FEE SUMMARY

Phase-1.1 _ Pre-Engineering Studies & Conceptual Design	**$19,454**
Right of Entry (ROE) Letters (25 Tracts)	
Establish Horizontal and Vertical Control Datum	
Phase-1.2 _ 30% Design and PER	**$70,199**
Topographic Survey from FM 541 Northward to Emmanuel King Road, (Approx. 4,250 LF)	
Topographic Survey from Proposed Humphrey Way to the Creek, (Approx. 2,200 LF)	
Phase-2 _ 70% Design	**$64,477**
CAD Services (Utility Base Plan and Profile)	
Existing Topo/ROW Survey Maps (25 Tracts)	
Phase-3 _ 95% Design Submittal (ROW Parcel Acquisition (11 Tracts)	**$31,232**
TOTAL LUMPSUM FOR BASIC SERVICES	**$185,453**
Phase-4 _ Potential Additional Services (Assumed 2 Parcels)	**$14,040**

Assumptions:

- Surveyors will be permitted to work from 7am to 6pm, 5 days a week, with vehicular access to the entire project.
- Individual trees will **not** be located.
- No more than one round of client comments on parcel exhibits is expected.
- Services that are not mentioned as part of the scope of services are not included.
- The schedule is based on working 5 days a week. If the weather prevents the fieldwork from being completed, additional time may be necessary. If weather delays occur, they will be communicated on a weekly basis.
- No permitting or traffic control is included or expected as part of this project.

Deliverables:

- Autocad Civil 3D 2020 or newer dwg will be provided containing 3D linework, 2D planimetrics, and surface TIN
- ASCII file of all survey points
- Legend, linetypes, and scale will be displayed.
- 8-1/2" x 11" Parcel Exhibits (signed & sealed)

Schedule:

Field work will begin one (1) week after notice to proceed is received. Draft deliverables will be completed twelve (12) weeks from notice to proceed. Client comments will be addressed one (1) week from receipt.

The total lump sum fee for this scope of services is $185,453. Phases of the scope shall be billed as they are completed. Should you have any questions, please feel free to contact me at 737-308-8181. We look forward to working with you and your staff.

Sincerely,
WOOLPERT, INC.

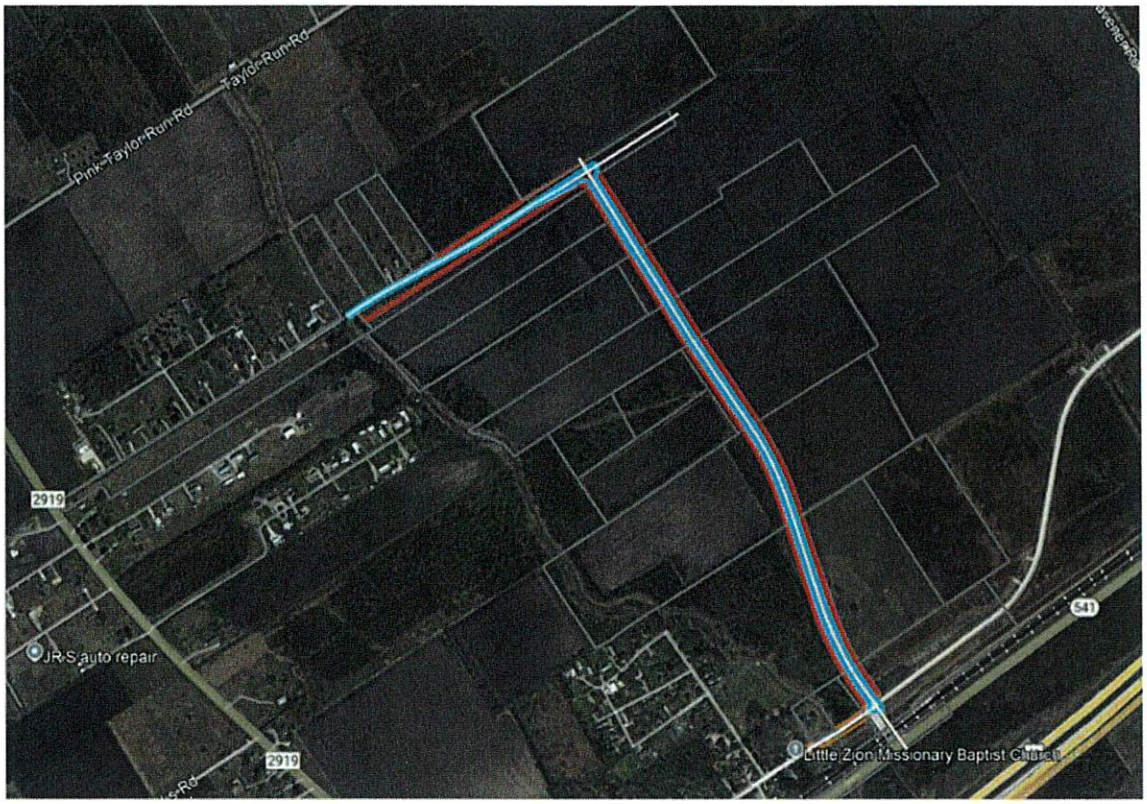
Thomas Cargill, RPLS
Survey Team Lead

Woolpert -Seurvey Services

Tuesday, February 11, 2025

ITEM NO.	Project: Humphrey Way Roadway Design, Fort Bend County_ Project No. 23411 Prepared By: Wanzhi Li, Ph.D., PE, General Manager, TLC	No. Sheets	Project Manager Manager	Surveyor RPLS Senior	Surveyor RPLS	Survey Tech./ SIT	1-Person Crew	2-Person Crew	Admin/ Clerical	Survey Equipment Per Hour	Survey Vehicles Per Day				Working Hours	Tasks and Fees Average Rate	Work Category 1 2 3 4 5
	TLC - Civil, Roadway, Hydraulic, Drainage, Grading, Pavement																
	Woolpert - Survey		$ 300.00	$ 248.00	$ 235.00	$ 120.00	$ 132.00	$ 230.00	$ 100.00	$ 11.00	$ 140.00					$ 137.58	
	Woolpert - Survey																
	Wilson Engineering - Traffic																
	KCI - Susurface Utility														TOTAL	TOTAL	Percentage
BREAKDOWN	TASK AND FEE ALLOCATIONS		HOURS														
	TLC _ Civil, Roadway, Drainage, Traffic and Subsurface Utilities																
	Woolpert _ Survey and TOPO																
	HVJ Associates _ Geotechnical Investigation																
	Wilson Engineering - Traffic																
	KCI - Susurface Utility																
	Total Hours and Fees on Engineering Consulting Services		18	51	113	320		392	24	390	40				1348	$ 185,453.00	
Phase-1.1	Phase-1.1 Pre-Engineering Studies & Conceptual Design																
1.10	Subtotal of Pre-Engineering Studies and Conceptual Design		2	8	16	38		30	9	30	3				136	$ 19,454.00	
	Right of Entry (ROE) Letters (25 Parcels)														15	$ 2,278.00	
1.11	Woolpert will draft ROE letter for each parcel to be mapped		1	1	2	8			3						8	$ 1,298.00	
1.12	Woolpert will mail out the ROE and put together a ROE spreadsheet showing status			1	2	4			1						8	$ 1,298.00	
1.13	Woolpert will scan all received ROE letters and save them for records and provide to FBC at the end			1	2	4			1						14	$ 2,248.00	
	Establish Horizontal and Vertical Control Datum														8	$ 1,298.00	
1.14	Establish Horizontal and Vertical Control Datum, with specified coordination of Zone, NAD, ITRF, NAVD.			1	4	8			1						25	$ 3,253.00	
1.15	GPS observe control (RTK), UEI control, NGS control, FBC Control and HGCSD control if found within the project area.			1	2	4			1						54	$ 6,878.00	
1.16	GPS observe control (Static), UEI control, NGS control, FBC Control and HGCSD control if found within project area.			1	1	1		10	1	10	1				4	$ 903.00	
1.17	Woolpert will run conventional levels through UEI control.			1	2	8		20	1	20	2				537	$ 70,199.00	
1.18	Woolpert will provide Project NGS control, FBC control and HGCSD control with published versus as observed comparison if found within project area.		1	1	1	1										$ -	
Phase -1.2	Phase-1.2 30% Design and PER																
	Subtotal of 30% Design Submittal		8	13	19	91		190	6	190	20						
	Topographic Survey from FM 541 Northward to Emmanuel King Road, (Approx. 4,250 LF)														144	$ 18,326.00	
1.19	Standard Topographic survey within the ROW limit starts with 120' and ends with 100' cross sections along route survey.		1	2	4	30		50	1	50	6				78	$ 10,008.00	
1.20	The Topographic Survey will extend up the side streets, from 120 feet to 100 feet starts at FM 541 frontage road along proposed Humphrey Way and ends at Emmanuel King Road.		1	1	2	10		30		30	4				29	$ 3,733.00	
1.21	The Topographic Survey will extend 15' beyond the proposed ROW where possible.			1	1	5		10	1	10	1				29	$ 4,048.00	
1.22	Place 811 ONE CALL and all locates will be surveyed in.		1	1	2	4		10		10	1				50	$ 6,398.00	
1.23	Woolpert will hand-cut the brush and tree line to acquire 100' to 120' cross.			1	2	4		20	1	20	2				25	$ 3,453.00	
1.24	Woolpert will coordinate with Geotech firm to tie in up to 20 boreholes.		1	1	1	1		10		10	1					$ -	
	Topographic Survey from Proposed Humphrey Way to the Creek, (Approx. 2,200 LF)														67	$ 8,523.00	
1.25	Standard Topographic survey within the ROW limit 100' cross sections along route survey.		1	1	1	20		20	1	20	3				40	$ 5,278.00	
1.26	The Topographic Survey will extend up the side streets, from Proposed Humphrey Way Westward to the Creek within the 100 feet ROW along Emmanuel King Road.		1	1	1	5		15		15	2				18	$ 2,388.00	
1.27	The Topographic Survey will extend 15' beyond the proposed ROW where possible.			1	1	5		5	1	5					15	$ 2,228.00	
1.28	Place 811 ONE CALL and all locates will be surveyed in.		1	1	1	2		5		5					28	$ 3,708.00	
1.29	Woolpert will hand-cut the brush and tree line to acquire 100' cross.			1	2	4		10	1	10					14	$ 2,108.00	
1.30	Woolpert will coordinate with Geotech firm to tie in up to 10 boreholes.		1	1	1	1		5		5							
Phase -2	Phase-Two _70% Design														478	$ 64,477.00	
	Subtotal of 70% Design Submittal		4	14	37	103		150	5	150	15					$ -	
	CAD Services (Utility Base Plan and Profile)														19	$ 3,176.00	
2.10	Woolpert will perform private and public Utility Research.		1	2	4	12										$ -	
	Existing Topo/ROW Survey Maps (25 Tracts)														432	$ 56,705.00	
2.11	Provide Category 1B, Condition II (Topo/ROW Maps) along project limits.		2	10	25	75		150	5	150	15					$ -	
	Survey Control Maps														27	$ 4,596.00	
2.12	Provide Generate Survey Control Maps for the project area		1	2	8	16											
Phase -3	Phase-3 _95% Design Submittal														197	$ 31,323.00	
3.10	Subtotal of 95% Design Submittal		4	16	41	88		22	4	20	2					$ -	
3.11	Proposed ROW Parcel Acquisition (11 Tracts)														29	$ 5,545.00	
3.12	Provide Category 1B, Condition II, ROW Parcel Acquisition.		1	5	11	11			1								
3.13	Woolpert will provide Limited Title Report for all current property owners at the time of survey.		1	5		22		1	1						30	$ 4,510.00	
3.14	Woolpert will set all parcel corners prior to signing and sealing parcel acquisition plats.		1	1	8	11		20	1	20	2				64	$ 8,948.00	
3.15	Woolpert will provide parcel plats and metes and bounds for all parcels.		1	5	22	44		1	1						74	$ 12,320.00	
#REF!																$ -	
Phase -4	Phase-4 Potential Additional Services														90	$ 14,040.00	
4.10	Subtotal of Potential Additional Services														$ 30.00	$ 4,680.00	
4.11	One Parcel														$ 20.00	$ 3,120.00	
4.12	Detention Pond Survey														$ 40.00	$ 6,240.00	
4.13	SUE LVL "A" POTHOLE(1 HOLE)																
																$ 14,040.00	
	TOTAL FOR POTENTIAL ADDITIONAL SERVICES																

Appendix B


Pink Taylor Run Rd
Taylor Run Rd
2919
JR-S auto repair
2919
541
Little Zion Missionary Baptist Church

HTS, Inc. Consultants
416 Pickering Street, Houston, TX 77091
www.htshouston.com

Phone: 713-692-8373
Fax: 713-692-8502
Toll Free: 1-800-692-TEST

ATTACHMENT -E

December 20, 2024

TLC Engineering, Inc.
8204 Westglen Drive
Houston, TX 77063

Attn: Mr. Wanzhi Li, Ph.D., PE.
General Manager

Re: Proposal
Geotechnical Investigation
Proposed Emmanuel King and Humphrey Way Road
Fort Bend County Mobility Bond Program
Fort Bend County, Texas

HTS Proposal No.: 24-00335 Revision 2

Dear Mr. Li:

1.0 INTRODUCTION

In response to your request, HTS Inc. Consultants (HTS) is pleased to submit this proposal to TLC Engineering, Inc. on behalf of the Fort Bend County Engineering Department to provide a geotechnical investigation for the proposed development of Emmanuel King and Humphrey Way Road, as part of the Fort Bend County Mobility Bond Program in Fort Bend County, Texas. HTS thanks you for the opportunity to propose these geotechnical services and looks forward to being part of the design team.

Project information was provided to HTS by Mr. Wanzhi Li with TLC Engineering Inc. through an email dated December 11, 2024. Based on HTS's review of the information provided, a summary of our understanding of the proposed project is provided in Table below.

TABLE: PROJECT DESCRIPTION AND DOCUMENT BASIS

Site Location	This project, located north of existing Humphrey Way Road and east of existing Emmanuel King Road in Fort Bend County, Texas.
Project Items	HTS understands that the project includes the construction of a rigid pavement roadway. The proposed Humphrey Way Road will extend from the existing Humphrey Way Road to the proposed Emmanuel King Road. The proposed Emmanuel King Road will be extended eastward to intersect with the proposed Humphrey Way Road.

Underground Utilities	The depths of the proposed underground utilities are not known at this time. For this proposal, we have assumed that the maximum underground utility depth will be no more than 20 feet below the existing ground surface. If the utility depths are planned to exceed 20 feet, HTS should be contacted for a revised boring depth.
Detention Pond	TLC Engineering, Inc. informed us that a detention pond may be constructed as part of the project; however, its location, depth as well as area has not yet been determined. HTS has assumed a maximum depth of 10 feet and maximum area of 5 acres for the detention pond.
Site History	Based on historical Google Earth imagery, the site is currently agricultural land.
Site Access	Stiff ground conditions are anticipated and should be accessible by a track mounted drill rig when dry, but ground surface could become inaccessible after rainfall.

The purpose of this geotechnical investigation is to provide:

- recommendations for roadway construction.
- Roadway subgrade preparation recommendations.
- characterize the site subsoil at the location of future detention pond.
- subgrade preparation and construction requirements for the proposed detention pond.

The remaining portions of this proposal present the proposed work scope, estimated costs, and an estimated schedule to provide geotechnical engineering services.

2.0 SCOPE OF WORK

HTS proposes that the scope of work for the geotechnical investigation be as follows:

- Drill and sample a total of 22 geotechnicalborings: 17 borings to a depth of 30 feet within the area of the proposed roadway and 5 borings (1 boring per acre) at a depth of 20 feet within the area of the proposed detention pond. The depth and number of borings are selected based on Fort Bend County Geotechnical Investigation guidelines. The location of the proposed boring for the detention pond will be determined after the location of the detention pond is selected.
- Obtain both disturbed and undisturbed samples continuously to a depth of 15 feet and at 5 feet interval thereafter.
- Convert 1 detention pond boring into piezometer to record long term water level readings in accordance with Fort Bend County Engineering Department "Engineering Design Manual" dated March 2022. The location of the proposed piezometer will be determined after the location of the detention pond is selected.

- Obtain utilities clearance for all the boring locations by calling TX 811.

- Measure groundwater levels in the borings during drilling and within approximately 24 hours after the completion of drilling.

- Backfill the borings with soil cutting after drilling. Mark the borings with spray marking/ stakes that extend at least 3 feet above the ground surface, tie survey flagging near the top of the stakes, and label the stakes with the boring number. After the completion of our field activities, the client will be notified for surveying of the boring locations.

- Perform laboratory tests to classify and determine the engineering properties of the subsurface Soil classifications will be performed in strict accordance with ASTM D 2487. The laboratory program may include the tests described in the Table below.

TABLE: LABORATORY TESTING GENERAL PROCEDURES

Laboratory Test	Applicable ASTM/Standard Procedures
Moisture Content	ASTM D2216
Atterberg Limits	ASTM D4318
Material Finer than No. 200 Sieve	ASTM D1140
Unconfined Compression Strength	ASTM D2166
Particle Size Analysis with Sieve and Hydrometer	ASTM D 6913 and ASTM D 7928
Triaxial UU compression Test	ASTM D-2850
Triaxial CU compression Test	ASTM D-4767
Specific Gravity of Soils	ASTM D-854
Crumb Test	ASTM D 6572
Double Hydrometer Test	ASTM D 4221
California Bearing Ratio	ASTM D1883

- Characterize the site subsoil and groundwater conditions and provide the results on the "gINT" boring logs.

- Perform engineering analyses to develop geotechnical recommendations including final concrete pavement recommendations (which will include pavement layer thickness) including subgrade stabilization requirements.

- Perform slope stability analyses in order to determine the stability of the side slopes of the proposed detention pond in the short-term, rapid drawdown, and long-term conditions using subsoil parameters derived from field and laboratory tests.

- Provide recommended subgrade preparation and construction requirements for the detention pond.

- Provide erosion control recommendations for the outfall locations and the side slopes of the detention pond, as needed.

- Conduct a desktop geological fault study, which may include reviewing existing fault maps along the project alignment or at the specific project site that could impact the project design.

- Submit a pdf file of a report which presents the results of the geotechnical investigation.

Note: Hard copies of the report will be provided upon request at an additional cost of $30.00 per report.

3.0 COST AND SCHEDULE

HTS' proposed cost to complete the scope of work as designed in Section 2.0 above is $79,607.00. This cost includes site clearing for 1 day. The estimated costs are provided in the attached Cost Estimate.

We estimate that about 6 weeks after receipt of the notice to proceed will be required to complete the geotechnical investigation if no delays are encountered with respect to weather conditions and/or site access. The table below summarizes the proposed project schedule.

TABLE: APPROXIMATE SCHEDULE FOR THIS PROJECT

Description of Work	Schedule
Beginning of field exploration	Anticipated to be within a week after the authorization to perform the work is received
Duration of field exploration	Anticipated to be completed within 6 working days.
Laboratory testing	Anticipated to be completed within 3 weeks after the completion of the field exploration
Final Report	Anticipated to be 1 week from the completion date of the laboratory testing
Project Duration	Anticipated to be 6 weeks from the notice to proceed to the submittal of the final geotechnical report.

4.0 CLOSING REMARKS

We appreciate the opportunity to present this proposal to you and would be pleased to discuss the contents of this proposal with you at your convenience. Your approval of this proposal may be indicated by your signing/dating this proposal as provided below.

We request that a copy of the signed/dated proposal be provided to HTS. We look forward to being of service to you.

Respectfully submitted,
HTS, Inc. Consultants

Imran Hossain, P.E.
Geotechnical Services Manager

Jubair Hossain, Ph.D., P.E.
President

Attachment: Cost Estimate
Proposed Boring Locations

AGREED TO THIS _____DAY OF _____2024_____

PRINTED NAME: _____TITLE: _____

SIGNATUERE: _____

FIRM: _____

IH/JH:rg

H:\Proposals AlllProposals-24aTLCE-24-00335 Revision 2.docx

HTS CONSULTANTS
416 Pickering Street
Houston, Texas 77091

COST ESTIMATE

Proposal No.: 24-00335 Rev. 2

Prepared By:	Date:	Checked By:	Date:	Page No.:
MM	12/20/24	IH	12/20/24	OF

GEOTECHNICAL INVESTIGATION

	ITEM	EST. QUANTITY		UNIT PRICE	EST. COST
A)	**Drill/Sample 22 Borings**				
	Site Clearing	1	day	$ 2,000.00	$ 2,000.00
	Mobe/demobe drill rig	Lump Sum		$ 1,000.00	$ 1,000.00
	3" diameter (0' to 30')	610	feet	$ 27.00	$ 16,470.00
	Logging	64	hours	$ 96.00	$ 6,144.00
	Locate/identify borings	24	hours	$ 59.00	$ 1,416.00
				SUBTOTAL =	$ 27,030.00
B)	**Piezometer Installation/Plugging and Monitoring**				
	Install 1 piezometers to 20'	20	feet	$ 26.00	$ 520.00
	Field supervision of installation by field technician/logger	8	hours	$ 96.00	$ 768.00
	Obtain piezometer water level readings by field technician/logger	16	hours	$ 96.00	$ 1,536.00
	Plugging/abandoning of piezomter	20	feet	$ 21.00	$ 420.00
				SUBTOTAL =	$ 3,244.00
C)	**Laboratory Analyses**				
	Atterberg limits(ASTM D 4318)	88	tests	$ 76.00	$ 6,688.00
	Unconfined compression test (ASTM D 2166)	49	tests	$ 54.00	$ 2,646.00
	Moisture content (ASTM D 2216)	88	tests	$ 12.00	$ 1,056.00
	Percent material passing No. 200 sieve (ASTM D 1140)	88	tests	$ 59.00	$ 5,192.00
	California Bearing Ratio (ASTM D-1883) with Standward Proctor	2	tests	$ 1,023.00	$ 2,046.00
	Triaxial UU compression (ASTM D-2850)	17	tests	$ 77.00	$ 1,309.00
	Triaxial CU compression (ASTM D-4767)	2	tests	$ 1,600.00	$ 3,200.00
	Specific Gravity(ASTM D-854)	2	tests	$ 77.00	$ 154.00
	Crumb tests (ASTM D-6572)	9	tests	$ 46.00	$ 414.00
	Particle size analysis with hydrometer (ASTM D-7928)	9	tests	$ 164.00	$ 1,476.00
	Double Hydrometer Test (ASTM D-4221)	6	tests	$ 266.00	$ 1,596.00
				SUBTOTAL =	$ 25,777.00
D)	**Engineering Analysis and Report Preparation**				
	Principal engineer, P.E.	12	hours	$ 266.00	$ 3,192.00
	Project engineer, P.E.	24	hours	$ 176.00	$ 4,224.00
	Stafft engineer, E.I.T.	120	hours	$ 122.00	$ 14,640.00
	Support personnel (CAD/clerical)	20	hours	$ 75.00	$ 1,500.00
				SUBTOTAL =	$ 23,556.00
				TOTAL COST =	$ 79,607.00
E)	**Cost with Detention Testing Separated**				$63,844.00
	5 x 3" Diameter Borings (0-20') with additional lab testing		LS	$	$15,763.00

Attachment B
Manhour and Fee Estimate
Humphrey Way ,Fort Bend County, Project # 23411

HTS Geotechnical Services

ITEM NO.	Monday, February 17, 2025	No. Sheets	Principal Director	Project Manager	Design Engineer	Clerical Admin	Mobe/Demob Drill Rig	Sampling 3" diameter	Logging Lab	Clearing Access Trail	e/Identify bo Technician	Piezometer Installation	Piezometer ndoning/Plug	Laboratory g limits(ASTM	Laboratory pression tes	Laboratory content (AST	Laboratory sing No. 200	Laboratory ompression (	Laboratory ompression (	Laboratory tests (ASTM	Laboratory s with hydro	Laboratory ometer Test (	Laboratory aring Ratio (	Working Hours	Tasks and Fees	Work Category
ITEM NO.	Project: Humphrey Way Roadway Design, Fort Bend County_ Project No. 23411																									
	Prepared By: Wenzhi Li, Ph.D., PE, General Manager, TLC																									
	TLC - Civil, Roadway, Hydraulic, Drainage, Grading, Pavement																							Average Rate	$ 70.75	1
	Woolpert - Survey																									2
	HTS Houston - Geotechnical Investigation		$ 266.00	$ 178.00	$ 122.00	$ 75.00	$ 1,361.00	$ 27.00	$ 96.00	$ 2,000.00	$ 59.00	$ 28.00	$ 21.00	$ 78.00	$ 54.00	$ 12.00	$ 59.00	$ 77.00	$ 1,800.00	$ 46.00	$ 164.00	$ 266.00	$ 1,023.00			3
	Wilson Engineering - Traffic																									4
	KCI - Susurface Utility																									5
BREAKDOWN	TASK AND FEE ALLOCATIONS		HOURS																					TOTAL	TOTAL	Percentage
	TLC Civil, Roadway, Drainage, Traffic and Subsurface Utilities																									
	Woolpert Survey																									
	HTS Houston - Geotechnical Investigation		6	12	80	20	1	510	82	1	24	20	20	80	42	35	35	19	2	8	9	6	2	907	$ 73,944.00	3
	Wilson Engineering - Traffic																									
	KCI - Susurface Utility																									
	Total Hours and Fees on Engineering Consulting Services		6	12	80	20	1	510	82	1	24	20	20	80	42	35	35	19	2	8	9	6	2	907	$ 73,944.00	
Phase -1	Phase-1 30% Design and PER																									
1.00	Subtotal of 30% Design Submittal		1	2	16	4		190	12		8	4	6	28	4	15	15	2		3	3	6		298	$ 15,843.00	
1.01	HTS Houston - Geotechnical Investigation		1	2	16	4		190	12		8	4	6	28	4	15	15	2		3	3	6		298	$ 15,843.00	3
Phase -2	Phase-Two 70% Design																									
2.10	Subtotal of 70% Design Submittal		2	4	28	8	1	200	32		8	8	6	24	38	12	12	7	2	3	3			358	$ 34,878.00	
2.11	HTS Houston - Geotechnical Investigation		2	4	28	8	1	200	32		8	8	6	24	38	12	12	7	2	3	3			358	$ 34,878.00	3
Phase -3	Phase-3 95% Design Submittal																									
3.10	Subtotal of 95% Design Submittal		2	4	24	6		60	30	1	4	4	4	18		4	4	8		3				144	$ 14,368.00	
3.11	HTS Houston - Geotechnical Investigation		2	4	24	6		60	30	1	4	4	4	18		4	4	8		3				144	$ 14,368.00	3
Phase -4	Phase-4 100% Design Submittal																									
4.10	Subtotal of 100% Design Submittal		1	2	12	2		60	8		4	4	4	12		4	4	1			3		2	106	$ 8,855.00	
4.11	HTS Houston - Geotechnical Investigation		1	2	12	2		60	8		4	4	4	12		4	4	1			3		2	106	$ 8,855.00	3
Estimate	TOTAL FOR CONSULTING FOR BASIC SERVICES		6	12	80	20																		907	$ 73,944.00	
Phase -8	OPTIONAL ADDITIONAL SERVICES																									
Phase -8.1	Phase-8.1 Optional Additional Geotechnical Services																									
8.10	Subtotal of Additional Drainage Services																							222	$ 15,783.00	
8.11	HTS Houston - Geotechnical Investigation																							222	$ 15,783.00	3
	TOTAL FOR OPTIONAL ADDITIONAL SERVICES																								$ 15,783.00	

ATTACHMENT-F

WECS

Proposal for Traffic Engineering Design Services

Construction of Humphrey Way #23411 – Fort Bend County Precinct #4

Submitted by:
Wilson Engineering & Construction Services, PLLC
4434 Bluebonnet Drive, Suite 144
Stafford, Texas 77477

---

1. Traffic Warrant Analysis

The purpose of this task is to determine if a traffic signal is warranted at the proposed intersection(s) based on applicable standards and guidelines.

- **Tasks:**
  - Collect and analyze traffic volume, crash history, and pedestrian/bicycle activity data.
  - Evaluate the intersection(s) against the criteria outlined in the **Manual on Uniform Traffic Control Devices (MUTCD)**.
  - Prepare a detailed report summarizing findings, including:
    - Existing conditions.
    - Warrant evaluations.
    - Recommendations for traffic signal installation.
  - Provide supporting documentation, including charts, tables, and diagrams.
  - Attend meetings to present findings to stakeholders and address questions.

2. Traffic Signal Design (Additional Services)

Develop a comprehensive traffic signal design that meets operational and safety requirements for the intersection(s).

- **Tasks:**
  - Perform field reviews and collect relevant site data (e.g., utilities, existing infrastructure).
  - Design signal phasing and timing plans based on traffic volumes and operational needs.
  - Determine the optimal placement of signal poles, mast arms, and controller cabinets.
  - Develop plans for signal heads, pedestrian signals, push buttons, and other appurtenances.
  - Prepare electrical and conduit layout plans, including power supply and grounding.
  - Ensure compliance with applicable standards, including MUTCD, local agency standards, and ADA guidelines.
  - Coordinate with utility companies and other agencies for potential conflicts and relocations.

3. Traffic Control Plan Design

Design a detailed temporary traffic control plan to ensure safe and efficient movement of vehicles, pedestrians, and bicyclists during construction activities.

- **Tasks:**
  - Evaluate construction phasing and identify potential impacts on traffic flow.
  - Develop temporary traffic control layouts, including detours, lane closures, and work zone signage.
  - Specify locations and types of temporary traffic control devices, such as barricades, cones, and warning signs.
  - Ensure compliance with MUTCD Part 6 and local work zone safety standards.
  - Provide clear and concise construction staging plans.

4. Permanent Traffic Signing and Pavement Marking Design

Design permanent traffic signing and pavement marking plans to support safe and efficient traffic operations.

- **Tasks:**
  - Develop layout plans for all permanent traffic signs, including regulatory, warning, and guide signs.
  - Design pavement markings, including lane delineations, crosswalks, stop bars, and turn arrows.
  - Ensure compliance with MUTCD, local standards, and ADA guidelines.
  - Specify materials, dimensions, and installation details for signage and pavement markings.
  - Coordinate with stakeholders to finalize locations and types of signs and markings.

Deliverables

- **Traffic Warrant Analysis Report**:
  - Summary of findings and recommendations.
  - Supporting data and documentation.
- **Traffic Signal Design Plans (Additional Services)**:
  - Signal layout, phasing, and timing plans.
  - Pole and equipment placement diagrams.
  - Electrical and conduit layout plans.
- **Traffic Control Plans**:
  - Temporary traffic control layouts and staging diagrams.
  - Detailed detour plans and safety device specifications.
- **Permanent Traffic Signing and Marking Plans**:
  - Final layout of signage and pavement markings.
  - Material and installation specifications.

Assumptions

- All designs will comply with MUTCD, TxDOT, and local standards.
- Necessary traffic data will be provided or collected as part of the scope.
- Stakeholder feedback will be incorporated into final designs.

Exclusions

- Traffic Data Collection
- Right-of-way acquisition services.
- Environmental permitting or assessments.
- Construction administration and inspection services.

Respectfully Submitted,

Gerald P. Wilson P.E., PMP (Consultant) Managing Director
Wilson Engineering & Construction Services, PLLC (WECS)
4434 Bluebonnet Dr, Ste.: 144
Stafford, TX 77477
Direct: 832.443.4150
Firm# 19379

Wilson Engineering -Traffic Services

Tuesday, February 11, 2025

ITEM NO.	Project: Humphrey Way Roadway Design, Fort Bend County_ Project No. 23411 Prepared By: Wanzhi Li, Ph.D., PE, General Manager, TLC	No. Sheets	Principal Director	Sr. Project Manager	Project Manager	TRAFFIC Engineer	Senior Engineer	Design Engineer	QA/QC Manager	Quantity Estimator	Senior CADD Designer	Junior Designer	Clerical Admin	Parcel Acquisition	Working Hours	Tasks and Fees	Work Category
	TLC - Civil, Roadway, Hydraulic, Drainage, Grading, Pavement															Average Rate	2
	Woolpert - Survey																3
	HTS Houston - Geotechnical Investigation																4
	Wilson Engineering - Traffic		$ 334.00	$ 314.00	$ 250.00	$ 206.00	$ 206.00	$ 206.00	$ 250.00	$ -	$ 170.00	$ 135.00	$ 85.00	$ -		$ 210.99	5
	KCI - Susurface Utility																
BREAKDOWN	TASK AND FEE ALLOCATIONS		HOURS												TOTAL	TOTAL	Percentage
	TLC _ Civil, Roadway, Drainage, Traffic and Subsurface Utilities																
	Woolpert __ Survey																
	HTS Houston - Geotechnical Investigation																
	Wilson Engineering - Traffic																
	KCI - Susurface Utility																
	Total Hours and Fees on Engineering Consulting Services	22	5	48	54	40		70			106		8		331	$ 69,838.00	
Phase-1.1	Phase-1.1 _ Pre-Engineering Studies & Conceptual Design																
1.10	Subtotal of Pre-Engineering Studies and Conceptual Design		3		32			58			12		8		113	$ 23,670.00	
1.11	PRE-DESIGN MEETING		1		2										3	$ 834.00	
1.12	PRE-WALK THROUGH VISITS				4			4							8	$ 1,824.00	
1.13	PROJECT MANAGEMENT & MEETINGS (3 MONTHS TYPICAL)		1		8			8							17	$ 3,982.00	
1.14	IDENTIFY PROBLEM AREAS AND POTENTIAL RESOLUTIONS				4										4	$ 1,000.00	
1.15	TRAFFIC SIGNAL WARRANTS ANLAYSIS #1 FM 2919 AT EMMANUEL KING				4			8							12	$ 2,648.00	
1.16	TRAFFIC SIGNAL WARRANTS ANLAYSIS #2 BRAXTON RD AT HUMPHREY WAY				4			8							12	$ 2,648.00	
1.17	REPORT DEVELOPMENT		1		6			30			12		8		57	$ 10,734.00	
1.18																$ -	
1.19																$ -	
Phase -1.2	Phase-1.2 _ 30% Design and PER																
1.20	Subtotal of 30% Design Submittal	1	1		8			12							21	$ 4,806.00	
1.21	OVERALL TCP	1	1		4			8							13	$ 2,982.00	
1.22	PROJECT MANAGEMENT & MEETINGS (3 MONTHS TYPICAL)				4			4							8	$ 1,824.00	
1.23																$ -	
1.24																$ -	
1.25																$ -	
1.26																$ -	
1.27																$ -	
1.28																$ -	
1.29																$ -	
1.30																$ -	
Phase -2	Phase-Two _ 70% Design																
2.10	Subtotal of 70% Design Submittal	21	1		14	32					78				125	$ 25,690.00	
2.11	General Notes	1			2	4					4				10	$ 2,004.00	
2.12	Quantities (Summary Sheets - Optional)	1			2	4					4				10	$ 2,004.00	
2.13	TCP Advance Warning Signs	1			2	4					8				14	$ 2,684.00	
2.14	TCP Overview & Narrative	1			2	4					6				12	$ 2,344.00	
2.15	Traffic Control Plan	1			2	4					8				14	$ 2,684.00	
2.16	Signing & Pavement Markings	14	1		2	8					40				51	$ 9,282.00	
2.17	Standard Details	3			2	2					4				8	$ 1,592.00	
2.18	Responses to Comments				2	6					8				16	$ 3,096.00	
Phase -3	Phase-3 _ 95% Design Submittal																
3.10	Subtotal of 95% Design Submittal			20		8					16				44	$ 10,648.00	
3.11	Technical Specifications			12											12	$ 3,768.00	
3.12	Responses to Comments			4		8					16				28	$ 5,624.00	
3.13	Project Management & Meetings (3 Months Typical)			4											4	$ 1,256.00	
3.14																$ -	
3.15																$ -	
3.16																$ -	
3.17																$ -	
3.18																$ -	
3.19																$ -	
3.20																$ -	
Phase -4	Phase-4 _ 100% Design Submittal																
4.10	Subtotal of 100% Design Submittal			12											12	$ 3,768.00	
4.11	Construction Cost Estimate			8											8	$ 2,512.00	
4.12	Project Manual & Plans (PDF Format on Compact Disc * 28)			4											4	$ 1,256.00	
4.13																$ -	
4.14																$ -	
4.15																$ -	
4.16																$ -	
4.17																$ -	
4.18																$ -	
4.19																	
Phase -5	Phase-5 _ Permitting and Bidding Phase																
5.10	Subtotal of Permitting and Bidding Phase			16											16	$ 5,024.00	
5.11	Attend Pre-Bid Meeting			4											4	$ 1,256.00	
5.12	Answer Bidder Questions & Addendum			8											8	$ 2,512.00	
5.13	Attend Pre-Construction Meeting			4											4	$ 1,256.00	

Attachment B
Manhour and Fee Estimate
Humphrey Way ,Fort Bend County, Project # 23411

5.14																$ -	
5.15																$ -	
5.16																$ -	
5.17																$ -	
5.18																$ -	
5.19																$ -	
5.20																	
Phase -6	Phase-6_Close Out Phase																
6.10	Subtotal of Project Closeout			8							12				20	$ 4,552.00	
6.11	Substantial Completion Walkthrough			6											6	$ 1,884.00	
6.12	Record Drawings			2							12				14	$ 2,668.00	
6.13																$ -	
Estimate	TOTAL FOR CONSULTING SERVICES	22	5	48	54	40	0	70	0	0	106	0	8	0	331	$ 69,838.00	

Phase -7.5	OPTIONAL ADDITIONAL SERVICES																
Phase -7.5	Phase-8.5 Optional Additional Traffic Signal Services																
7.10	Subtotal of Additional Drainage Services	21	2	39		114					218				373	$ 73,458.00	
7.11	TRAFFIC SIGNAL DESIGN - FM 2919 AT EMMANUEL KING	5	1	8		40					76				125	$ 24,006.00	
7.12	TRAFFIC SIGNAL DESIGN - BRAXTON RD AT HUMPHREY WAY	5	1	8		40					76				125	$ 24,006.00	
7.13	General Notes	1				2					4				6	$ 1,092.00	
7.14	Quantities (Summary Sheets - Optional)	1				2					4				6	$ 1,092.00	
	SITE VISIT AND DATA COLLECTION			2		8									10	$ 2,276.00	
7.15	TCP Advance Warning Signs	1		2		1					6				9	$ 1,854.00	
7.16	TCP Overview & Narrative	1		2		1					6				9	$ 1,854.00	
8.17	Traffic Control Plan	2				4					12				16	$ 2,864.00	
	Signing & Pavement Markings	2		2		8					12				20	$ 3,904.00	
	Standard Details	3				2					6				8	$ 1,432.00	
	Responses to Comments					8									8	$ 1,648.00	
	Record Drawings			1							16				17	$ 3,034.00	
	Review Contractor Submittals			6											6	$ 1,884.00	
	Answering Requests for Information			8											8	$ 2,512.00	
																$ -	
	TOTAL FOR OPTIONAL ADDITIONAL SERVICES															$ 73,458.00	

KCI
ISO 9001:2015 CERTIFIED
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
3 Riverway Drive, Suite 1500 • Houston, Texas 77056 • Phone 713-237-9800 • Fax 713-237-9801

EXHIBIT A SCOPE OF SERVICES
TO BE PROVIDED BY THE ENGINEER

SUE Proposal Request
Fort Bend County Humphrey Way (Project No. 23411)
Precinct 4

The work to be performed by the Engineer shall consist of Level A, B & D SUE with an optional for Level A & B SUE for the Humphrey Way within Fort Bend County Precinct 4. This road improvement consists of a new construction of 12" standard, 2-lane each bound, or four lanes divided by a median of 33' (depending on Fort Bend County Design Manual) along Humphrey Way from the intersection of Braxton Road and Humphrey Way extending northward to Emmanuel King Road and Humphrey Way then extending west to with 2-lanes at the start point at Humphrey Way and narrows to one lane towards the Creek along Emmanuel King Road (Exhibit 1).

The scope of work to be performed will include the following tasks.

BASIC SERVICES

I. **SUE Quality Level D Subsurface Utility Engineering**
Research to determine the existence and location of underground utilities (pipelines, duct banks, etc.). This includes:

A. Gather utility information from a variety of sources which may include, but are not limited to:
   1. Utility Coordinating Committees
   2. One Call Center
   3. Landowners
   4. Internet or computer database search
   5. Visual site inspection
   6. Municipality GIS database
   7. Utility owners

B. Collect applicable utility owner records which may include, but are not limited to:
   1. Previous construction plans in the area
   2. Conduit maps
   3. Direct-buried cable records
   4. Distribution maps
   5. Transmission maps

6. "As-built" and record drawings
7. Field notes
8. Regional, Municipal, utility owner, or other geographic information systems databases
9. Circuit diagrams
10. Oral histories

C. Thoroughly review records for:
   1. Indications of additional available records
   2. Duplicate information and credibility of such duplicate information
   3. Need for clarifications by utility owners

D. Prepare a conflict table during the Preliminary Design phase to highlight conflicts between existing utilities and proposed improvements

II. **SUE Quality Level B Subsurface Utility Engineering**

Provide Level B Subsurface Utility Engineering designation of all underground utilities within the project limits – at the existing intersections of Braxton Road and Humphrey Way; Emmanuel King Road and proposed Humphrey Way; then extending west along Emmanuel King Road towards the Creek. Provide Plan sheets of the Level B & D information as necessary to evaluate and determine conflicts and resolution of conflicts against the detailed design of Humphrey Way. The cost is based on approximately 2350 feet utility location within the 6300 feet length of the project. Project costs also include Traffic control & safety, mobilization, and demobilization.

III. **SUE Quality Level A Subsurface Utility Engineering**

Perform a Level A Subsurface Utility Engineering at specific locations of the underground utility lines identified during the topographic survey specified by the Project Engineer and Fort Bend County as being necessary to determine the accurate location and depth required for final design of Humphrey Way. The cost will be based on 2 potholes for the existing gas pipeline at this time to include testing to a maximum depth of 8-feet, traffic safety, mobilization, and demobilization.

OPTIONAL SERVICES

IV. **SUE Quality Level A Subsurface Utility Engineering**

Perform a Level A Subsurface Utility Engineering at specific locations of the underground utility lines identified during the topographic survey specified by the Project Engineer and Fort Bend County as being necessary to determine the accurate location and depth required for final design of Humphrey Way. The cost will be based on 4 potholes at this time to include testing to a maximum depth of 8-feet, traffic safety, mobilization, and demobilization.

KCI- Subsurface Utility Services

Tuesday, December 24, 2024

ITEM NO.	Project: Humphrey Way Roadway Design, Fort Bend County_ Project No. 23411 Prepared By: Wanzhi Li, Ph.D., PE, General Manager, TLC	No. Sheets	Principal Director	SUE Project Manager	Project Manager	Discipline Engineer	SUE Senior Engineer	SUE Engineer in Training	Senior SUE Technician	Quantity Estimator	Senior CADD Technician	Junior Designer	Clerical Admin	2-Person Designation Crew	Working Hours	Tasks and Fees	Work Category
	TLC - Civil, Roadway, Hydraulic, Drainage, Grading, Pavement															Average Rate	1
	Woolpert - Survey																2
	HTS Houston - Geotechnical Investigation																3
	Wilson Engineering - Traffic															$ 225.90	4
	KCI - Subsurface Utility Engineering			$ 310.00			$ 255.00	$ 135.00	$ 130.00		$ 137.00		$ 92.00	$ 235.00			5
	TASK AND FEE ALLOCATIONS		HOURS												TOTAL	TOTAL	Percentage
BREAKDOWN	TLC _ Civil, Roadway, Drainage, Traffic and Subsurface Utilities																
	Woolpert _ Survey																
	HTS Houston - Geotechnical Investigation																
	Wilson Engineering - Traffic																
	KCI - Subsurface Utility Engineering																
	Total Hours and Fees on Engineering Consulting Services			29			48	55	31		53		14	30	260	$ 58,734.00	
Phase-1.1	Phase-1.1 _ Pre-Engineering Studies & Conceptual Design																
1.10	Subtotal of SUE Quality Level D Subsurface Utility Engineering			14			20	30	14		13		6		97	$ 17,643.00	
1.11	Gather Utility Information			3			4	6	4		1		2		20	$ 3,601.00	
1.12	Research Utility Records			3			4	8	4				2		21	$ 3,734.00	
1.13	Creation of Quality Levels D SUE CADD Utility Base Map										10				10	$ 1,370.00	
1.14	QA/QC of Levels D SUE			3			4	2							9	$ 2,220.00	
1.15	Utility Conflict Matrix			3			4	8	4		2		2		23	$ 4,008.00	
1.16	Encroachment Table			2			4	6	2						14	$ 2,710.00	
1.20	Subtotal of SUE Quality Level B Subsurface Utility Engineering			15			28	25	17		40		8	30	163	$ 30,641.00	
1.21	Quality Level B SUE Field Designation & Marking of Sub-Surface Utility Features			4			10	8	8					30	60	$ 12,960.00	
1.22	Creation of Quality Levels B SUE CADD Utility Base Map			4			6	8			36		2		56	$ 8,966.00	
1.23	QA/QC of Survey & Field notes for Level B SUE CADD Utility Base Map			2			4	2	3		2		2		15	$ 2,758.00	
1.24	Utility Conflict Matrix			3			4	5	3		2		2		19	$ 3,473.00	
1.25	Encroachment Table / Owner Contact List			2			4	2	3				2		13	$ 2,484.00	
2.10	Subtotal of SUE Quality Level A Subsurface Utility Engineering		14925		6											$ 10,450.00	
2.11	Non-Destructive Test Holes (per vertical depth)		Rate	Unit	Estimated											$ 3,400.00	
2.12	Mobilization For Level A service		$ 3,400.00	LS	1											$ -	
2.13	0.00-4.99 FT.		$ 1,525.00	each												$ 3,800.00	
2.14	5.00-7.99 FT.		$ 1,900.00	each	2											$ -	
2.15	8.00-12.99 FT.		$ 2,350.00	each												$ -	
2.16	13.00-19.99 FT.		$ 2,750.00	each												$ 500.00	
2.17	Pavement Coring & Replacement Materials (Up to 12" thickness)		$ 250.00	each	2											$ 2,750.00	
2.18	Lane Closure, Traffic Control & Traffic Attenuator Truck		$ 2,750.00	day	1												
Estimate Budget	TOTAL FOR CONSULTING SERVICES	0	0	29	0	0	48	55	31	0	53	0	14	30	260	$ 58,734.00	

Phase -2	OPTIONAL ADDITIONAL SERVICES																
Phase -8.1	Phase-8.1 Optional Additional SUE Quality Level A																
8.10	Subtotal of SUE Quality Level A Subsurface Utility Engineering		11295		8											$ 7,850.00	
8.11	Non-Destructive Test Holes (per vertical depth)		Rate	Unit	Estimated											$ -	
8.12	Mobilization For Level A service		$ 2,520.00	LS												$ 3,050.00	
8.13	0.00-4.99 FT.		$ 1,525.00	each	2											$ 3,800.00	
8.14	5.00-7.99 FT.		$ 1,900.00	each	2											$ -	
8.15	8.00-12.99 FT.		$ 2,350.00	each												$ -	
8.16	13.00-19.99 FT.		$ 2,750.00	each												$ 1,000.00	
8.17	Pavement Coring & Replacement Materials (Up to 12" thickness)		$ 250.00	each	4											$ 2,750.00	
	Lane Closure, Traffic Control & Traffic Attenuator Truck		$ 2,750.00	day	1											$ 7,850.00	
	TOTAL FOR OPTIONAL ADDITIONAL SERVICES																

Fort Bend County - Humphrey Way Project #23411

12/18/2024, 3:05:23 PM

Parcels

2023

2023

Water Lines

Flood Hazard Zones

1% Annual Chance Flood Hazard

0.2% Annual Chance Flood Hazard

Flood Hazard Boundaries

SFHA / Flood Zone Boundary

County Boundary

Streets

Discussion & Scope

Include providing engineering services necessary for infrastructure improvements for and related to Humphrey Way. The improvements to Humphrey Way include the construction of a new 56-foot-wide concrete pavement with roadside ditches between Braxton Road and Emanuel King Road. Additionally, Emanuel King Road, which runs west to east, will be extended to connect with Humphrey Road. From Humphrey Road, a new 24-foot-wide concrete pavement section with roadside ditches will be built to link to the existing Emanuel King Road.

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

GHC911, FBC Engineering GIS, Maxar

Engineering GIS Division

GHC911, FBC Engineering GIS | FBC, Draining District | FBC GIS | Maxar |

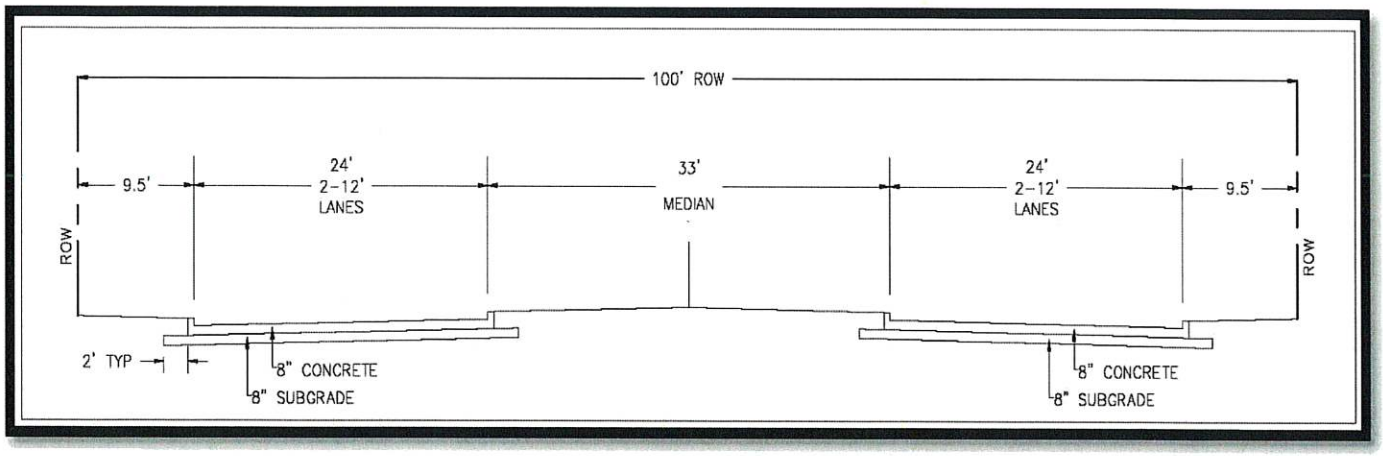
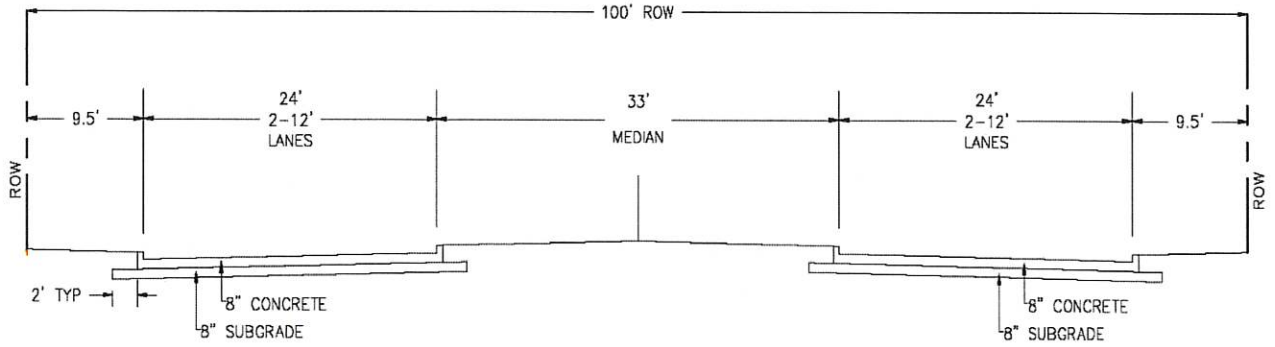
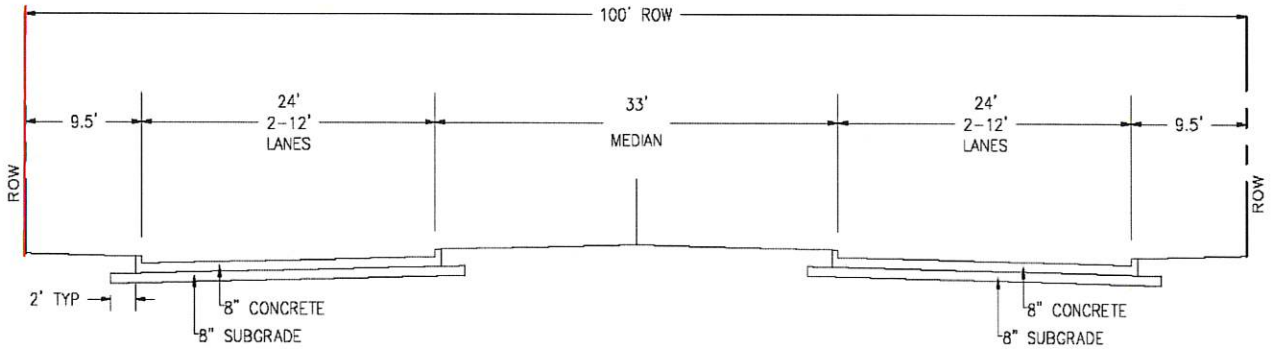
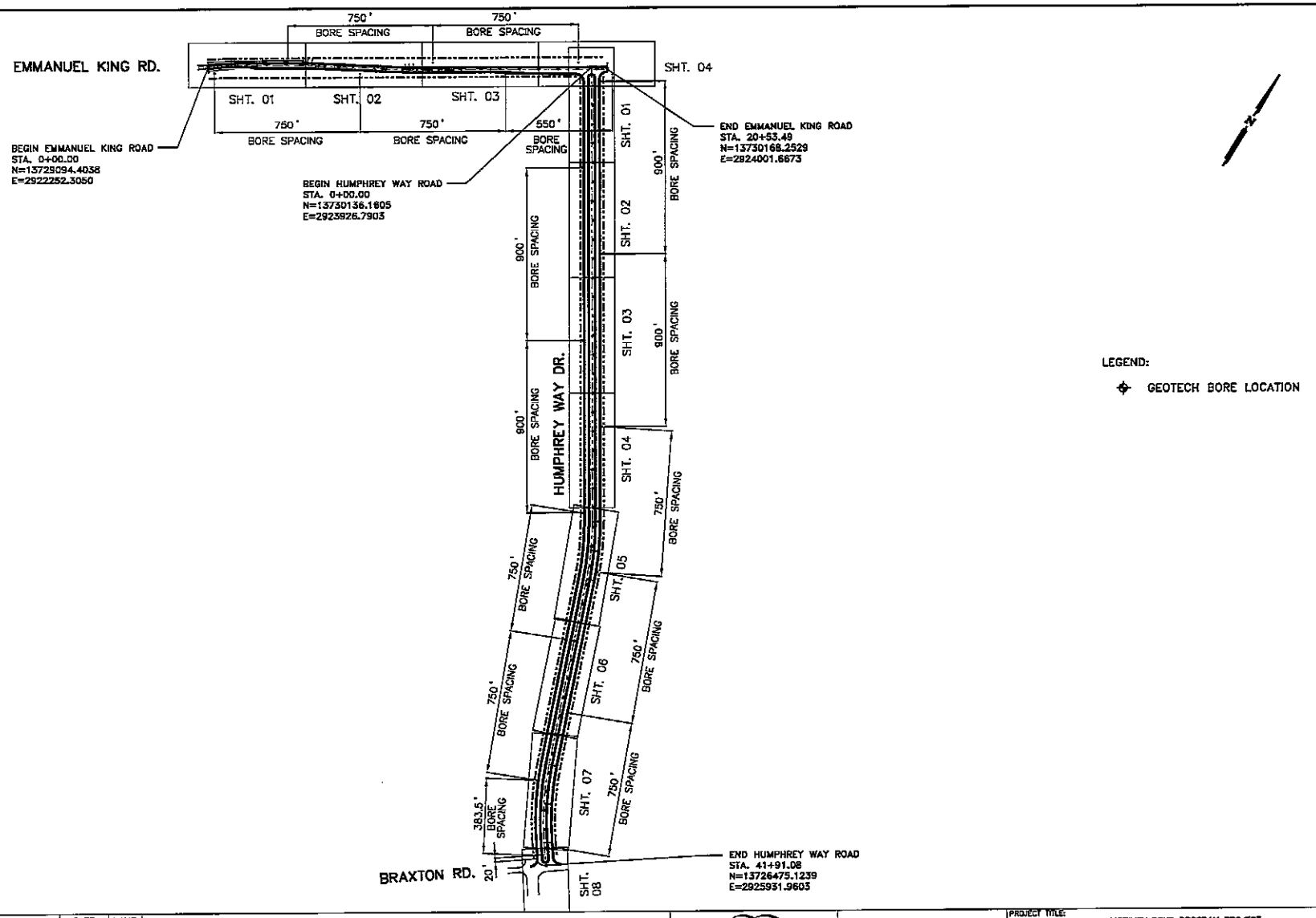


Figure 3-1 Standard Typical Section







NO.	REVISIONS	DATE	NAME
1			
2			
3			
4			
5			

FORT BEND COUNTY
ENGINEERING DEPARTMENT

TLC ENGINEERING
F-4005

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
RESPONSIBLE ENGINEER:
TLC ENGINEERING
WANZHI U, P.E.
TEXAS REGISTRATION NO. 85024

PROJECT TITLE:	MOBILITY BOND PROGRAM PROJECT
DRAWN BY:	PROPOSED EMMANUEL KING AND HUMPHREY WAY RD.
CK'D BY:	SHEET DESCRIPTION: OVERALL LAYOUT SHEET
SCALE: 1"=500'	
DATE: 12-11-24	APPROVED BY:

FBCED STANDARD: -

SHEET NO: 1

FILE:I:\2024 Open Projects\Fort Bend County_Humphrey Way (Project No. 23411)\CADD\Fort Bend_Humphrey Way_Overall-Layout_plan.dgn

NO.	REVISIONS	DATE	NAME
△			
△			
△			
△			
△			

FORT BEND COUNTY
ENGINEERING DEPARTMENT

TLC ENGINEERING
F-4066

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
RESPONSIBLE ENGINEER:
TLC ENGINEERING
WANZHI LI, P.E.
TEXAS REGISTRATION NO. 85024

PROJECT TITLE: MOBILITY BOND PROGRAM PROJECT
DRAWN BY: PROPOSED EMMANUEL KING AND HUMPHREY WAY RD.
CK'D BY: SHEET DESCRIPTION: OVERALL LAYOUT SHEET
SCALE: 1"=500'
DATE: 12-11-24
APPROVED BY:
FBCED STANDARD: –
SHEET NO: 1

FILE:Z:\2024 Open Projects\Fort Bend County_Humphrey Way (Project No. 23411)\CADD\Fort Bend_Humphrey Way_Overall-Layout_plan.dgn