

4. **Compensation and Payment Terms.**

- (a) Contractor's fees for the Services shall be calculated at the rate(s) set forth in Contractor's Fee/Rate Schedule attached hereto as Exhibit "A" and incorporated by reference for all intents and purposes. The Maximum Compensation to Contractor for the Services performed under this Agreement is Seven Hundred Eighty Four Thousand Nine Hundred Forty Two and 00/100 Dollars (\$784,942.00). In no event shall the amount paid by County to Contractor under this Agreement exceed said Maximum Compensation without an approved change order.
- (b) Contractor 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 Attachment "B."
- (c) County will pay Contractor based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Contractor 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. 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. County reserves the right to withhold payment pending verification of satisfactory work performed.

5. **Limit of Appropriation.** Contractor understands and agrees that the Maximum Compensation for the performance of the Services within the Scope of Services described in Section 2 above is Seven Hundred Eighty Four Thousand Nine Hundred Forty Two and 00/100 Dollars (\$784,942.00). In no event shall the amount paid by County under this Agreement exceed the Maximum Compensation without a County approved change order. Contractor clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of Seven Hundred Eighty Four Thousand Nine Hundred Forty Two and 00/100 Dollars (\$784,942.00) specifically allocated to fully discharge any and all liabilities County may incur under this Agreement. Contractor does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total Maximum Compensation that Contractor may become entitled to and the total maximum sum that County may become liable to pay to Contractor under this Agreement shall not under any conditions, circumstances, or interpretations thereof exceed Seven Hundred Eighty Four Thousand Nine Hundred Forty Two and 00/100 Dollars (\$784,942.00).

6. **Non-appropriation.** Contractor understands and agrees that in the event no funds or insufficient funds are appropriated by the County under this Agreement, County shall immediately notify Contractor 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.** County is a body corporate and politic under the laws of the state of Texas and as such, is exempt from sales and use taxes. County shall furnish evidence of its tax-exempt status upon written request by Contractor.
8. **Insurance.** Prior to commencement of the Services, Contractor 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. Contractor shall provide certified copies of insurance endorsements and/or policies if requested by County. Contractor 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. Contractor 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 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 Contractor shall contain a waiver of subrogation in favor of County.

If required coverage is written on a claims-made basis, Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of

the Contract 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 Contract is completed.

Contractor shall not commence any portion of the work under this Contract 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 Contractor.

9. **Indemnity.** TO THE FULLEST EXTENT PROVIDED BY APPLICABLE LAW, CONTRACTOR 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 CONTRACTOR OR CONTRACTOR'S AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH CONTRACTOR EXERCISES CONTROL. CONTRACTOR SHALL FURTHER PROCURE AND MAINTAIN GENERAL LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT AND SHALL FURNISH A CERTIFICATE OF INSURANCE FOR THE SAME SHOWING FORT BEND COUNTY, TEXAS AS AN ADDITIONAL INSURED.
10. **Public Information Act.** Contractor 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 Contractor 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 Contractor expressly marked as proprietary or confidential. County shall not be liable to Contractor 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. Contractor further acknowledges and agrees that the terms and conditions of this Agreement are not proprietary or confidential information.
11. **Compliance with Laws.** Contractor 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. Contractor 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, Contractor 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 Contractor. Contractor 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.** Contractor may use County's name without County's prior written consent only in Contractor's customer lists. Any other use of County's name by Contractor 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.** Contractor 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 Contractor 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 Contractor shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Contractor or agent of Contractor who, in County's opinion, is incompetent or by his conduct become 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, Contractor shall comply with, and will require that all Contractor's Personnel comply with, all applicable rules, regulations and known policies of County that are communicated to Contractor 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.** Contractor 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 Contractor 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 Contractor 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 Contractor) publicly known or is contained in a publicly available document; (b) is rightfully in Contractor'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 Contractor who can be shown to have had no access to the Confidential Information.

Contractor agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Contractor 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. Contractor 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, Contractor shall advise County immediately in the event Contractor 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 Contractor will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Contractor against any such person. Contractor agrees that, except as directed by County, Contractor 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, Contractor will promptly turn over to County all documents, papers, and other matter in Contractor's possession which embody Confidential Information.

Contractor 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. Contractor 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.

Contractor 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 documents, data, reports, research, graphic presentation materials, etc., developed by Contractor as a part of its work under this

Agreement, shall become the property of County upon completion or termination of this Agreement. Contractor shall promptly furnish all such data and material to County on request.

18. **Inspection of Books and Records.** Contractor shall permit County, or any duly authorized agent of County, to inspect and examine the books and records of Contractor for the purpose of verifying the amount of work performed under the Scope of Services. County's right to inspect such books and records shall survive the termination of this Agreement for a period of four years. Notwithstanding the foregoing, Contractor shall bear no liability or responsibility for deliverables that have been modified post-delivery or used for a purpose other than that for which they were prepared under this Agreement.
19. **Termination.** County may terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Contractor. Upon termination of this Agreement by County, Contractor shall be paid in accordance with Section 4, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to County. Contractor's final invoice for said services will be presented to and paid by County in the same manner set forth in Section 4 above. No fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Contractor by County.
20. **Force Majeure.** Notwithstanding anything to the contrary contained herein, neither Party shall be liable to the other for any delay or inability to carry out its obligations under this Agreement if such delay or inability is the result of a Force Majeure Event. Within a reasonable time after the occurrence of such event, the Party whose obligations are 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, a Force Majeure Event includes, but is not limited to: strikes or other labor disputes, severe weather disruptions, natural disasters, fire or other acts of God; riots, war, or other emergencies; failure of any governmental agency to act in a timely manner; the discovery of any hazardous substance or differing and unforeseeable site conditions; and any other incapacities 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.** Contractor may not assign this Agreement to another party without the prior written consent of County.

22. **Successors and Assigns Bound.** County and Contractor 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 Contractor release any material or information developed or received during the performance of Services hereunder unless Contractor 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,
Richmond, Texas 77469

And

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

If to Contractor: Cobb, Fendley & Associates, Inc.
13430 Northwest Fwy.
Suite 1100
Houston, Texas 77040

25. **Performance Representation.** Contractor represents to County that Contractor has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession ("Professionals") practicing in the greater Houston metropolitan area. Contractor 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. **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.

27. **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.
28. **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.
29. **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.
30. **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.
31. **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, Contractor hereby verifies that Contractor 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, 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, Contractor 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, Contractor 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, Contractor 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.
32. **Human Trafficking.** BY ACCEPTANCE OF THIS AGREEMENT, CONTRACTOR 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.
33. **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.
34. **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.
35. **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.

{Execution Page Follows}

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

FORT BEND COUNTY, TEXAS

COBB, FENDLEY & ASSOCIATES, INC.

KP George, County Judge

Authorized Agent – Signature
Charles M. Eastland, P.E.

Date

Authorized Agent- Printed Name
Executive Vice President

ATTEST:

Title
04/25/2023

Laura Richard, County Clerk

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 Drainage County within the foregoing Agreement.

Robert Ed Sturdivant, County Auditor

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EXHIBIT A



February 22, 2023

Mr. Stacy Slawinski, P.E.
Fort Bend County Engineer
C/O Gabriel Odreman, P.E.
RPS Professional Group
575 N Dairy Ashford Suite 700
Houston, Texas 77079

Re: California Street Paving, Drainage Improvements including
an 8-inch water main from Trammel Fresno to future Lake Olympia Blvd.
Mobility Bond Program Project No. 202xx

Subject: Proposal for Preliminary Engineering, Final Design & Limits CA Professional Services

Dear Mr. Slawinski:

Enclosed are Cobb, Fendley & Associates, Inc. (CobbFendley) proposed budget, manpower, and direct expense breakdown and detailed scope of services (Attachment "A") for completing preliminary engineering, final design, geotechnical, surveying, bidding, and limited construction phase services for the above referenced project.

CobbFendley proposed budget for the referenced project as follow:

Basic Services

Phase I – Preliminary Design Services (Lump-Sum).....	\$176,615.00
Phase II- Final Design Services (Lump-Sum).....	\$323,306.00

Subtotal Phases I & II Basic Services Fee.....	\$499,920.00
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Phase III – Limited Construction Phase Services (Time & Material).....	\$ 30,000.00
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Subtotal Phase III Basic Services Fee (T & M).....	\$ 30,000.00
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Subtotal Phases I & II (PER & Final Design) and limited CA.....	\$529,920.00
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Additional Services

Geotechnical Investigation (Lump-Sum).....	\$ 17,500.00
Topographical Surveying (Lump-Sum)	\$ 83,822.00
ROW Parcels M&B and sketches 19 @ \$2,468/Each (Required) (Lump-Sum)	\$ 46,892.00

Subtotal Additional Services Fee	\$148,214.00
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Optional Services for ROW Parcels & Detention site (if required)

Topographical Surveying (Budgeted as need Lump-Sum)	\$ 10,000.00
Additional 17 ROW Parcel @ \$2,468/Each (Budgeted as needed per parcel).....	\$ 41,956.00
Geotechnical Investigation (Budgeted as needed Lump-Sum).....	\$ 17,500.00
Detention & Misc. Design during Design Phases (budgeted as needed Lump-Sum).....	\$ 35,000.00

Subtotal Optional Additional Services Fee (If required)	\$ 104,456.00
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13430 Northwest Frwy., Suite 1100 | Houston, Texas 77040-6131 | Voice (713) 462-3242 | Fax (713) 462-3262 | www.cobfen.com



Reimbursables & Direct Expenses

Reimbursables & Direct Expenses\$ 2,352.00

Subtotal Reimbursables & Direct Expenses\$ 2,352.00

Total Fee for Basic, Additional & Optional Services and Reimbursables\$784,942.00

We respectfully request a total budget of \$784,942.00 for the abovementioned professional services. Detailed scope of services and the level of effort for the basic, additional, and optional services are attached. Also attached are the proposals from subconsultant for the geotechnical investigation services.

Please note that optional services fee for the surveying, engineering design and construction of a potential detention site are for budgetary purposes, if deemed necessary, as determined by the H&H analysis. The optional services will only be performed with prior written authorization by the County Engineer and/or the Fort Bend County Managing Consultant.

We will commence upon receipt of the written notice to proceed for the work. Please call at your earliest convenience should you have any questions, or require additional information,

Sincerely,

COBB, FENDLEY & ASSOCIATES, INC.

A handwritten signature in blue ink, appearing to read "Mahmoud Salehi".

Mahmoud Salehi, P.E.
Vice President | Senior Project Manager

Attachments:

Attachment "A"

California Street Paving & Drainage Improvements including installation of 8-inch Water Main from ~200-ft north of Trammel Fresno to future Lake Olympia Parkway apparent ROW Scope of Services

Existing Conditions

The existing California Street is a 2-lane asphalt road with roadside ditches from Trammel Fresno north to Evergreen Street for approximately 3,900 linear feet and continues north as an unpaved access road to large lot residential dwellings for approximately 2,600 LF for a total of 6,500 LF or (1.23 miles) in length. The existing right-of-way (ROW) for the majority of the California Street appears to be 60-ft wide south of the Evergreen intersection and variable from 40-ft to 50-ft in width north of the Evergreen which is also platted as Live Oak Street. There is no roadway ROW platted for the Live Oak/California Street for approximately 800-ft south of the future Lake Olympia Blvd apparent centerline alignment. There are three (4) non-signalized intersections with "T" configuration within the project limits.

The posted speed limit is 30 MPH and there are 45 driveways accessing the roadway comprised of residential homesteads and light commercial businesses.

There are several existing dry and wet utilities within the ROW for the entirety of the project limits. The following represent the buried and aerial utilities that are designated by markers:

1. FBCFWD#1 has a 12" & 8" Water main service line along the west ROW line from Trammel Fresno to Evergreen Street.
2. AT&T Fiber Optic buried lines along the West ROW line
3. CenterPoint Electric Power Poles staggered along east and west ROW lines up to approximately 800-ft south of the future Lake Olympia Blvd. apparent alignment.

California Street drains via open ditches on either side of the roadway but the west ditch is the main conveyance channel which ultimately outfalls into the existing trunk Storm system along Trammel Fresno.

Proposed Scope

The proposed scope is comprised of 3 phases: Study (PER)/preliminary engineering, final design & bidding phase services in addition to phase III, limited construction administration services. The scope of services will include professional engineering, surveying ROW mapping, and geotechnical investigation services. The project will involve installation of an 8-inch water main, constructing 6-ft sidewalks along the east & west ROW lines and reconstruction of approximately 6,500 LF of 2-12' lanes undivided asphalt pavement with open ditch drainage system including a potential detention site for drainage mitigation to be determined upon completion of the drainage analysis during the PER phase.

Additionally, the scope includes design of an 8-inch water main within the length of the project to be coordinated with the City of Houston drinking water operations for design approval and construction permitting. The scope of the project extends from approximately 200-ft north of Trammel-Fresno to future Lake Olympia Blvd. eastbound lanes. Dedicated left turn lanes will be provided at the Lake Olympia intersection. The proposed roadway section(s) will be evaluated along the existing California Street during the study phase. Final Posted speed will be determined after the completion of the project.

by conducting speed study analysis followed by issuance of a certified letter indicating the safe posted speed limit.

The following constitute the primary goals of the study phase:

1. Prepare and evaluate proposed typical section alternatives.
2. Determine the impact on existing properties and identify number of right-of-way (ROW) parcel required for the recommended roadway and drainage improvements.
3. Coordination with FWD#1 & RPS for evaluation and design of a new 8-in Water Main in addition to potential adjustment and/or relocation of existing water main and fire hydrants along the corridor (funded & constructed by FBCFWD#1).
4. Coordination with the City of Houston, Fort Bend County Drainage District, Homeowners Associations as needed in addition to consultants designing Evergreen and other side Roads.
5. Determine potential conflicts with existing private utilities including pipelines and associated coordination for any/all conflict resolution.
6. Early identification of critical path items such as number of ROW parcels and major utility conflicts including determination of any/all permitting & regulatory requirements if needed.
7. Prepare preliminary drainage mitigation & Identify drainage problem areas associated with the California Street & provide mitigation alternatives with resolution(s),
8. Review contents & recommendations of a drainage report recently prepared by GRADIENT for the Evergreen Street widening segment 1 project and develop a potential mitigation plan that would benefit both Evergreen Street & California Street projects,
9. Prepare preliminary schematics of the proposed typical section and alignment alternatives as part of the PER to be used towards final PS&E efforts, and
10. Develop preliminary construction cost estimate for the recommended alignment & typical section alternative.

The Preliminary Engineering Report (PER)

The purpose of the PER is to clearly depict refined horizontal and vertical alignments and to document the goals stated above. CobbFendley will prepare a PowerPoint presentation depicting the project visually for the meeting attendees to better understand the project findings & recommendations as the report will remain internal to Fort Bend County Engineering staff and the County's project management consultant. The PER/Technical Memorandum will include an executive summary, preliminary schematics of the proposed typical section alternatives, a drainage report, water line alignment, and construction cost estimates for the proposed roadway alternative in addition to an 8" water main, and the geotechnical report as applicable. CobbFendley will deliver an electronic copy of the report in PDF format to the County. Upon completion of the PER document and subsequent presentation to the Fort Bend County Engineering, a 30% completed plans review will be held to include any/all additional scope needed to complete the project. CobbFendley will draft a separate proposal with associated compensation for any further requirements or additional scope of work requested by Fort Bend County.

Surveying and ROW Mapping

1. Topographic survey

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

- a. Horizontal and vertical project control shall be established relative to the North American Datum of 1983 (NAD 83, 2001 adjustment) and the North American Vertical Datum of 1988 (NAVD 88, 2001 adjustment/TSARP datum).
- b. Temporary benchmarks and baseline controls will be set, both with 1,000-foot maximum spacing between points.
- c. During topographic survey, found property corners will be documented to determine the approximate location and width of the right-of-way. Visible property delineators such as fence corners and other existing monumentations will also be tied in order to evaluate alignment alternatives within project limits.
- d. The Topographical survey shall be along California Street from Trammel Fresno to future Lake Olympia projected right-of-way for approximately 6,200 feet. The topographical survey will also extend along all major & minor intersecting streets for 200-ft in E-W directions.
- e. Roadway cross sections will be obtained at 100 ft. intervals. Cross-sections shall extend 25 feet beyond the existing rights-of-way lines as applicable but not behind the platted subdivision fence.
- f. Topographic survey will identify locations and elevations of physical features to include buildings, fences, walls, trees, sidewalks, driveways and driveway curbs, power poles, light poles, water meters, water wells, ponds, sprinklers, off-site drainpipes as applicable.
- g. Topographic survey of any/all existing structures in clear view and within 50 feet of the existing right-of-way.
- h. The survey data collection and survey base map will include horizontal and vertical location of existing utilities within, crossing and adjoining project limits. Utilities will be located and tied based on visual evidence and utilities based on maps and plans provided by the utility owners and marked by "One Call" within the project's limits, Flow line elevations, sizes, material types and directions of pipes will be obtained on storm sewer lines, sanitary sewer lines and culverts. The rim (top) and flow line elevations will be obtained on inlets, manholes, and drainage structures as applicable.
- i. A 3D topographical survey base map including a digital terrain model (DTM) and triangular irregular network (TIN) will be created for the existing roadway surface features.
- j. The survey line work and surface TIN shall be provided to the Client in Microstation/Geopak CADD platform.

2. Right of Way Mapping

Existing ROW envelope Determination

The existing ROW envelope will be performed upon completion and acceptance of the study phase findings and will include the following tasks:

- a. Perform abstract survey; obtain deeds of records, and plats for California Street right-of way, streets intersecting California Street and tracts of land adjoining California Street.
- b. Establish the existing right-of-way of California Street and intersecting streets.
- c. Prepare existing Right-of Way Map of the project.
- d. Prepare Survey Control Sheet(s) for the project.
- e. Establish a recoverable existing and proposed iron rods and/or monumentation set for cutback corners along California Street and at intersecting streets.

Proposed ROW Maps/ Meets & Bounds and Parcel Sketches

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

Drainage Study & Report

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

The following tasks will be performed and will be included in the drainage study report:

1. We will request, obtain, review and evaluate available data for the study area including Fort Bend County and FBCDD Drainage Study(s), as-built plans, the latest version of the reference standards and criteria and other information.
 - a. Obtain, review, and evaluate available existing public and private utility information relevant to the characteristic of the existing storm sewer systems and outfall drainage channels/systems for the study area.
2. We will perform field visits to the study area and vicinity to photograph and adequately document existing conditions and special concerns as necessary.
 - a. Research and review the reported findings of all available, previous studies related to the study area and vicinity.
 - b. Gather existing roadside ditch, culvert, and overland flow information using LiDAR and collected survey data. The survey shall include the location of all drainage appurtenances (i.e., ditches, culverts, equalizers, inlets, manholes, and detention facilities) to be adequately identified to display their respective geometric positions within the right-of-way. In addition, the identification of high points in roadways and ditches shall be determined from the best management practices during the site visits.
3. Perform Existing Condition Analysis:
 - a. Analyze LiDAR Data to determine existing condition overland sheet flow patterns

- b. Identify and locate existing condition outfall locations and drainage systems
 - c. Analyze existing terrain for overland flowpaths
 - d. Determine Existing Condition drainage areas, create drainage area maps and compare to Fort Bend County Masterplan Drainage areas - modify where necessary
 - e. Perform existing condition hydrologic calculations using the Rational Method based upon Fort Bend County Drainage District ("FBCDD") drainage criteria for the 2-, 10-, and 100-year storm events.
 - f. Analyze conveyance capacity of existing condition roadside ditches, culverts and contributing storm sewer systems (where applicable) by creating a dynamic hydraulic model in XP-SWMM to evaluate the functionality of the existing system to provide a baseline for comparison purposes for the 2-, 10-, and 100-year storm events.
4. Perform Proposed Condition Analysis and coordinate with the Fort Bend County Drainage District in order to obtain their approval and acceptance of the project:
- a. Determine proposed condition drainage areas and create drainage area map
 - b. Perform proposed condition hydrologic calculations per FBCDD drainage criteria for the 2-, 10-, and 100-year storm events.
 - c. Estimate the preliminary detention volume required to offset increased impervious cover and reduced roadside ditch ("RSD") storage volume
 - d. Determine necessary sizes and geometries for the roadside ditches, driveway culverts, and limited storm sewer within the corridor (where applicable) required to convey flow within the ROW utilizing static hydraulic calculations
 - e. Increase estimated ditch sizes to provide additional conveyance capacity and volume to offset impervious cover and reduced RSD storage volume (where possible)
 - f. Create dynamic models in XP-SWMM to calculate proposed condition flows and resultant water surface elevations for the 2-, 10-, and 100-year storm events.
 - g. Develop alternative measures to mitigate increases in HGL and flow to receiving systems associated with the proposed roadway improvement project within the County ROW or on adjacent undeveloped tracts (up to 3 alternatives)
5. Prepare a report with maps, exhibits and an estimated construction cost for drainage related items (including acquisition of additional ROW). Drainage meeting will determine which option the county would like to move forward with, and report will be updated/finalized to reflect comments from meeting. The study/report will conform to FCBDD standards and approval.

Utilities

Research to determine the existence and location of underground utilities (pipelines, duct banks, etc.) is the design consultant's responsibility. A reasonable amount of research should be conducted, including but not limited to contact with companies identified on above-ground markers, Railroad Commission website research, and map requests from prominent companies (CenterPoint, AT&T, etc.). CenterPoint Energy and AT&T I.D. numbers should be obtained. An appropriate attempt must be made to depict underground utilities accurately in the plan and profile drawings, and potential conflicts between existing utilities and proposed features should be identified. Any subsurface utility investigation (SUI)

should be at the expense of the utility company. Contact with utility companies (both overhead and underground) to coordinate the adjustment of existing utilities will be made by the County and/or its project management consultant.

Geotechnical Report

1. Field Investigation

Thirteen (13) 15-foot soil borings will be drilled according to the Fort Bend County design criteria manual along the project alignment (California Street). The boring locations will be determined in consultation with CobbFendley and soil borings will be conducted after the invert depths have been established. The borings will be sampled continuously to a depth of 15 feet, and at maximum five-foot intervals thereafter. Samples of cohesive soils will be obtained using three-inch diameter pushed tubes. Cohesionless soils (sands and gravels) will be sampled and evaluated in-situ by use of the Standard Penetration Test (SPT). The borings will be grouted at the completion of field operations. In addition, one 15-foot piezometer will be installed to monitor the groundwater conditions along the project alignment. It is important to note that additional soil borings may be required for design and construction of a detention site upon results and recommendation of H&H engineering analysis.

2. Laboratory Testing

The project engineer will review field data and assign laboratory tests to understand the engineering properties of various soil strata. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods may be applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed. The anticipated laboratory testing may include the following:

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D1140 Standard Test Methods for Amount of Materials in Soils Finer than the No. 200 Sieve
- ASTM D2166/D2166M Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
- ASTM D7263 Standard Test Methods for Laboratory Determination of Density and Unit Weight of Soil Specimens

The laboratory testing program includes examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we will describe and classify soil samples in accordance with the Unified Soil Classification System (USCS)

3. Engineering & Project Delivery

Results of our field and laboratory programs will be evaluated by a professional engineer. The engineer will develop a geotechnical site characterization, perform the engineering calculations necessary to evaluate foundation alternatives, and develop appropriate geotechnical engineering design criteria for earth-related phases of the project.

The project will be delivered using our GeoReport® system. Upon initiation, the design team will be provided with the necessary link and password to access the website (if not previously

registered). Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal.

The typical delivery process includes the following:

- Project Planning – Cost estimate information, schedule, and anticipated exploration plan will be posted for review and verification
- Site Characterization – Findings of the site exploration
- Geotechnical Engineering – Recommendations and geotechnical engineering report

When utilized, our collaboration portal documents communication, eliminating the need for long email threads. This collaborative effort allows prompt evaluation and discussion of options related to the design and associated benefits and risks of each option. With the ability to inform all parties as the work progresses, decisions and consensus can be reached faster. In some cases, only minimal uploads and collaboration will be required, because options for design and construction are limited or unnecessary. This is typically the case for uncomplicated projects with no anomalies found at the site.

When services are complete, we upload a printable version of our completed geotechnical engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

The geotechnical engineering report will provide the following:

- Boring logs with field and laboratory data
- Stratification based on visual soil classification
- Groundwater levels observed during drilling and sampling
- Groundwater levels observed in the piezometers
- Site and boring location plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Subgrade preparation/earthwork recommendations
- Recommendations for excavations and temporary groundwater control
- Open-cut construction recommendation
- Utility bedding and backfill
- Pavement design guidelines

If the detention pond is included in our scope, the geotechnical engineering report will also include the following:

- Detention pond construction considerations
- Global stability analyses of the detention pond side slopes for a maximum of two cross-sections
- Slope protection and erosion control

Environmental Site Assessment (ESA)

The consultant that reports directly to the county will be responsible for the identification and assessment of any environmental problems associated with the project. The design consultant will be required to coordinate with the environmental consultants.

Design Reviews/Permitting/Coordination

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

following agencies:

- City of Houston Public Works & Engineering Drinking Water Operations design & installation approval of the proposed 8" water main
- FBCFWD#1 for Design & approval of proposed 8" WM
- Fort Bend County Engineering for approval of the design plans and construction administration
- Fort Bend County Drainage District for approval of the drainage study report & drainage design plans
- Potential private utility impacts as identified with utility owners
- HOA Management for surrounding neighborhoods
- AIG/Gradient (Design Consultants for Evergreen St Improvements project)
- HR Green, BBI, and other potential consultants that might be related to this project.

Traffic Engineering

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

SWPPP

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

Schedule

CobbFendley anticipates concluding the phase I, PER, in 180 days and phase II, final design, of construction documents in 180 days from the notice to proceed dates respectively. It must be noted that abovementioned durations for document delivery do not include the project management consultant (PMC), City of Houston, and Fort Bend County's intermediate reviews in addition to an acceptance of the PER by the Fort Bend County Commissioner's Court.

Compensations

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

Design Criteria

Applicable design criteria include, in order of priority, (1) Fort Bend County Design Guidelines and construction standards (2) *Fort Bend County Drainage Criteria Manual* (Fort Bend County Drainage District, November 1987, revised April 1999), (3) Municipal design criteria if the project is located within the limits of a municipality and/or ETJ that has design criteria, (4) The City of Houston *Infrastructure Design Manual* (IDM). Current version of IDM used for infrastructure for which design criteria do not

exist in the preceding documents/guidelines, (5) Fort Bend County Fresh Water District #1, (6) *Guidelines for Engineers Having Contracts with Harris County, Texas*, (7) applicable Texas Department of Transportation design criteria.

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

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

The **70%** submittal will include the following deliverables:

1. 30% Comments addressed.
2. Cover Sheet.
3. Index of Drawings.
4. General notes.
5. Existing and proposed typical sections with station limits for each section; show pavement/subgrade material and thickness, ROW & roadway width, applicable dimensions, profile grade line, and general location of existing and proposed utilities)
6. Overall project layout sheet
7. Survey control map
8. Right-Of-Way (ROW) existing & proposed.
9. Horizontal Alignment Data.
10. Plan and profile sheets (1" = 20' plan scale (full size) but printed half-size at a 1" = 40' scale; all existing and proposed facilities correctly shown in plan and profile; separate drawings for water and sanitary to be produced if needed; Check for potential design issues.
11. Drainage area map & Hydraulic calculations.
12. Traffic control plan (phasing and traffic control; avoid detours unless approved by the County; use of construction zone standards is encouraged).
13. Signage and pavement marking plans (use of pavement marking standards is encouraged)
14. Storm Water Pollution Prevention Plan (drawings and text including details)
15. Cross Sections (100-foot intervals with earthwork calculations).
16. Specification table of contents.
17. Construction Cost Estimate in PDF & Excel format.
18. Bid form in PDF & Excel format.
19. 70% plans in PDF format and a KMZ file depicting the current design with proposed ROW.
20. Regulatory permitting if applicable for TxDOT access (Driveway).
21. Private and public utility submitted separately for review with the following:
 - a. Updated utility table identifying utilities in ROW and conflict
 - b. City of Houston Public Works & Engineering for design of the proposed 8" WM
 - c. FBCFWD#1 for design of the proposed 8" WM
 - d. Private utilities including CenterPoint, AT&T & pipelines
 - e. Public utilities including MUD and privately owned utilities

The **95%** submittal deliverables will encompass the following:

2. 70% Comments addressed.
3. 95% Bid Ready Plans (Not Sealed) in PDF format in addition to a KMZ file of the current design with proposed ROW.
4. Verify earthwork quantities with cross sections at 100-ft intervals which will be incorporated into the final plans for contractor's information.
5. Standard construction details for the following:
 - a. Roadway, Pavement, Curb
 - b. Driveway, sidewalk & Ramps
 - c. Drainage, Manholes, inlets & outfalls
 - d. Signing & striping
 - e. Retaining wall, slope paving
 - f. Storm Water Pollution Prevention
 - g. Project Sign
6. Construction Cost Estimate in PDF & Excel format.
7. Project manual:
 - a. bid form in PDF & Excel format
 - b. Specification table of contents
 - c. Special specifications, or conditions
 - d. Contract documents excluded)
8. CobbFendley will address the 70% comments and submit an electronic copy of the 95% completed plans in PDF format to the PMC for review & comments.

The final **100%** deliverable will encompass the following:

1. 95% Comments addressed.
2. Bid Ready Plans (Sealed) in PDF format & a KMZ file of current design with proposed ROW
3. Construction Cost Estimate in PDF & Excel format.
4. Project manual:
 - a. bid form in PDF & Excel format
 - b. Specification table of contents
 - c. Special specifications, or conditions
 - d. Contract documents excluded)

Bidding and Limited Construction Administration Phase Services

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

A single project manual file in Adobe Acrobat format will be prepared which will include the following:

- (1) Administrative documents,
- (2) The bid form to be prepared by CobbFendley in Microsoft Excel format with requirement set forth by Fort Bend County,

(3) A sealed specification table of contents, and

(4) Applicable specifications and documents.

CobbFendley will prepare and provide to the County with a single file in Adobe Acrobat format for the entire drawing set excluding the cover sheet, which contains approval signature(s), all drawings will be printed directly to Adobe Acrobat format with electronic seal and signature.

CobbFendley will provide the following services during the Bid phase services:

1. Prepare an electronic PDF document containing the project manual file and the entire plan set to be uploaded onto the FBC engineering purchasing and the County's project management consultant. Additionally, 2 USB memory sticks will be delivered to the County Engineer's office and Purchasing Agent for advertising.
2. Attend a pre-bid meeting at the County Purchasing Office.
3. Briefly describe the project and will not prepare meeting minutes.
4. Receive bidder questions and clarifications from the County's Purchasing Agent.
5. Answers to questions and clarifications as well as any other required changes and prepare an addendum to include the responses and changes. The addendum will be distributed by the County's Purchasing Agent.

After the bid, the County's project management consultant will prepare a bid tabulation and provide a copy to the design consultant for filing.

Prior to the meeting, the project management consultant will inform CobbFendley of how many drawing and project manual sets are required, and the design consultant will provide these documents at the pre-construction meeting.

The following services will be performed by CobbFendley during the construction phase services:

1. Attend a pre-construction meeting with the County, project management consultant, general contractor, and construction materials testing contractor. Review Shop Drawings (including detailed structural components)
2. Review contractor submittals and responding to Requests for Information (RFI)
3. Respond to contractors RFI's (justifiable number of RFI's)
4. Participate in a substantial completion walkthrough
5. Prepare record drawings after project completion based on contractor as-built markups, the record drawings will be printed on paper and delivered to the County
6. Field visits and progress meetings will not be required unless requested by the County as an additional service.

The construction duration for this project is estimated to take 15 months. It is our mutual understanding that the construction phase services will be paid on a time-and-materials basis. The not-to-exceed fee for these services will be determined by the County and/or its project management consultant and CobbFendley. The construction phase services will be performed and continued with prior Fort Bend County authorization. Monthly billing will include a breakdown of hours spent by personnel in the various employee categories, at billing rates agreed to by the County and the design consultant. Reimbursable expenses, such as scanning and reproduction, will be billed at actual cost (no markup).

Fee Summary
2020 Fort Bend County Mobility Program
California Street from Trammel Fresno to future Lake Olympia Blvd.
Fort Bend County Project No. 202XX

Sponsor: Fort Bend County

Description: Reconstruction of existing 2-lane roadway with sidewalks including an 8-inch water main

Date: 2/22/2023

Basic Services

Phase I PER	\$	176,615
Phase II Final Design (including Bidding)	\$	323,306
Subtotal Phases I & II (PER, Final Design & Bidding)	\$	499,920
Phases III limited CA Services* (Time & Material)*	\$	30,000
Subtotal Phases III limited CA	\$	30,000
* As instructed by the County \$30K (Budgeted T&M)		
Subtotal Phases I & II (PER & Final Design) and limited CA	\$	529,920

Additional Services

Topo Survey including abstracting & ROW mapping (Lump-Sum)	\$	83,822
Prop. Parcels M&B and sketches 19 @ \$2,468/Each (Required)	\$	46,892
Geotechnical Investigation (Terracon Engineering)(Lump-Sum)	\$	17,500
Subtotal Additional Services	\$	148,214

Optional Additional & Basic Services

Additional Geotechnical Investigation for Detention Pond (Budgeted)	\$	17,500
Additional Topographical Surveying for Detention Pond (Budgeted)	\$	10,000
Detention & Misc. Design during Construction Phase Services (Budgeted)	\$	35,000
Additional 17 Parcel @ \$2,468/Each (Budgeted as needed)	\$	41,956
Subtotal Optional Additional & Basic Services	\$	104,456

Reimbursables

Reimbursable Expenses	\$	2,352
Subtotal Reimbursable Expenses	\$	2,352

PROJECT GRAND TOTAL	\$	784,942
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Cobb Fendley Fee Summary
2020 Fort Bend County Mobility Program
California Street from Trammel Fresno to future Lake Olympia Blvd.
Sponsor: Fort Bend County
Date: 1/18/2023

OVERALL BASIC SERVICES				
Classification	Hours	Rate	Labor Cost	
Principal	44	\$104.67	\$4,605.33	
Project Manager	379	\$97.33	\$36,908.80	
Senior Hydrologist Engineer	118	\$84.67	\$9,990.67	
Project Engineer III	388	\$61.33	\$23,797.33	
Project Engineer I	824	\$45.00	\$37,080.00	
Senior Technician III	500	\$45.00	\$22,500.00	
CAD Operator	461	\$36.00	\$16,596.00	
RPLS	0	\$61.33	\$0.00	
3-Man Crew	0	\$61.33	\$0.00	
Survey Tech I	0	\$36.00	\$0.00	
Utility Specialist	48	\$52.00	\$2,496.00	
Clerical	34	\$37.67	\$1,280.67	
Total Labor	2,796		\$155,254.80	
OVERHEAD	180.00%		\$279,458.64	
OPERATING MARGIN	15%		\$65,207.02	
SUBTOTAL CFA BASIC SERVICES PHASES I&II			\$499,920.46	

PER (PHASE I)				
Classification	Hours	Rate	Labor Cost	
Principal	4	\$104.67	\$418.67	
Project Manager	109	\$97.33	\$10,609.33	
Senior Hydrologist Engineer	68	\$84.67	\$5,723.47	
Project Engineer III	129	\$61.33	\$7,924.27	
Project Engineer I	398	\$45.00	\$17,892.00	
Senior Technician	144	\$45.00	\$6,480.00	
CAD Operator	128	\$36.00	\$4,608.00	
RPLS	0	\$61.33	\$0.00	
3-Man Crew	0	\$61.33	\$0.00	
Survey Tech I	0	\$36.00	\$0.00	
Utility Specialist	16	\$52.00	\$832.00	
Clerical	10	\$37.67	\$361.60	
Total Labor	1,005		\$54,849.33	
OVERHEAD	180.00%		\$98,728.80	
OPERATING MARGIN	15%		\$23,036.72	
SUBTOTAL CFA PHASE I PER			\$176,614.85	

FINAL DESIGN SERVICES (PHASE II) INCLUDING BIDDING				
Classification	Hours	Rate	Labor Cost	
Principal	40	\$104.67	\$4,186.67	
Project Manager	270	\$97.33	\$26,299.47	
Senior Hydrologist Engineer	50	\$84.67	\$4,267.20	
Project Engineer III	259	\$61.33	\$15,873.07	
Project Engineer I	426	\$45.00	\$19,188.00	
Senior Technician	356	\$45.00	\$16,020.00	
CAD Operator	333	\$36.00	\$11,988.00	
RPLS	0	\$61.33	\$0.00	
3-Man Crew	0	\$61.33	\$0.00	
Survey Tech I	0	\$36.00	\$0.00	
Utility Specialist	32	\$52.00	\$1,664.00	
Clerical	24	\$37.67	\$919.07	
Total Labor	1,791		\$100,405.47	
OVERHEAD	180.00%		\$180,729.84	
OPERATING MARGIN 15%			\$42,170.30	
SUBTOTAL CFA PHASE II DESIGN SERVICES			\$323,305.60	

2020 Fort Bend County Mobility Program

Fort Bend County Project No. 202XX

Sponsor: Fort Bend County

California Street from Trammel Fresno to future Lake Olympia Blvd.

Consultant: Cobb, Fendley & Associates, Inc.

Manhour Estimate														
Task		Principal	Project Manager	Senior Hydrologist Engineer	Project Engineer III	Project Engineer I	Senior Technician III	CAD Operator	RPLS	3-Man Crew	Survey Tech I	Utility Specialist	Clerical	Total Hours
Project Management														
Project kick-off meeting (1)		0	4	2	4	0	0	0	0	0	0	0	0	10
Attend status meetings (6)		0	6	6	0	8	0	0	0	0	0	0	0	20
Prepare invoice (monthly) (9)		0	4	0	0	0	0	0	0	0	0	0	8	12
Update project status (9)		0	6	0	0	8	0	0	0	0	0	0	0	14
Project coordination (project staff & subs)		0	80	0	32	32	0	0	0	0	0	0	0	144
Total Project Management*		0	100	8	36	48	0	0	0	0	0	0	8	200
* THE PROJECT MANAGEMENT HOURS ARE DISTRIBUTED AT 20% TOWARDS EACH SUBMITTAL/PHASES														
PRELIMINARY ENGINEERING REPORT - PER (30%)														
Data collection		0	4	0	4	8	0	0	0	0	0	0	0	16
Conduct field visits		0	6	6	6	6	0	0	0	0	0	0	0	24
Drainage/Existing Condition Analysis														
Meetings/Coordination with FBC Drainage District and affiliated managing consultants		0	4	4	4	4	4	0	0	0	0	0	0	16
Analyze LIDAR Data to determine existing condition overland sheet flow patterns		0	0	0	0	4	0	0	0	0	0	0	0	4
Identify and locate existing condition outfall locations and drainage systems		0	0	0	0	2	0	0	0	0	0	0	0	2
Analyze existing terrain for overland flowpaths		0	0	0	0	2	0	0	0	0	0	0	0	2
Determine Existing Condition drainage areas and create drainage area map		0	1	2	0	8	0	0	0	0	0	0	0	11
Perform existing condition hydrologic calculations		0	8	8	0	24	0	0	0	0	0	0	0	40
Analyze conveyance capacity of existing condition roadside ditches and culverts to determine existing condition		0	4	8	16	40	0	0	0	0	0	0	0	68
Proposed Condition Analysis														
Determine Proposed Condition drainage areas and create drainage area map - include 150' underdrains		0	0	4	4	8	0	0	0	0	0	0	0	12
Perform proposed condition hydrologic calculations		0	2	4	4	16	0	0	0	0	0	0	0	26
Perform comparison between existing and proposed condition hydrology to determine mitigation strategies		0	2	4	0	16	0	0	0	0	0	0	0	22
Create alternatives for proposed condition drainage systems to convey design storm using RBCDD		0	2	4	0	16	0	0	0	0	0	0	0	22
Create dynamic models to verify flows and computed water surface elevations for complex drainage		0	1	4	0	24	0	0	0	0	0	0	0	29
Determine/locate potential areas for detention to mitigate impacts (up to 3 alternatives)		0	2	4	4	32	0	0	0	0	0	0	0	42
Create and compile documents for the Report/Exhibits/Charts														
Typical sections														
Horiz/Vert alignments		0	2	0	4	4	32	0	0	4	0	0	0	42
Public & Private Utility coordination		0	8	0	8	16	16	16	0	0	0	0	0	64
Water Line Preliminary Design		0	4	0	8	8	4	0	0	0	0	0	0	24
RMD#1 Comments on Water Line		0	4	0	4	8	16	16	0	0	0	0	0	48
Plan & profiles (Water Line) (16)		0	4	0	4	8	8	16	0	0	0	0	0	40
Schematic Layout/ 30% Plan production		0	4	0	4	8	8	32	0	0	0	0	0	80
Cross sections		0	1	0	0	16	16	0	0	0	0	0	0	33
Limited Traffic Engineering (TCP phasing)		0	2	0	8	16	16	8	0	0	0	0	0	50
Utility research, adjustment, relocation		0	4	0	16	16	0	0	0	0	0	8	0	44
Public & Private Utility coordination		0	4	0	8	8	0	0	0	0	0	8	0	28
Water and Wastewater analysis for conflicts, relocation		0	2	0	8	8	8	8	0	0	0	0	0	34

2020 Fort Bend County Mobility Program

Fort Bend County Project No. 2022XX

Sponsor: Fort Bend County

California Street from Trammel Fresno to future Lake Olympia Blvd

Consultant: Cobb, Fendley & Associates, Inc.

Bid-Ready 100% - Final Submittal

Cover sheet/Index Sheet (2 Sheets)	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
General notes/Special Specifications & Special Provisions (3 Sheets)	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Typical sections (1 Sheet)	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Layout sheet (2 Sheets)	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Drainage Comments	0	2	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	10
Plan & profiles (Roadway) (16)	0	4	2	2	2	8	16	16	16	0	0	0	0	0	0	0	0	48
Plan & profiles and intersection detail sheets (2)	0	2	2	2	4	8	16	16	0	0	0	0	0	0	0	0	0	48
Utility adjustment, relocation Design	0	2	0	0	8	8	8	8	8	0	0	0	0	0	8	0	0	42
FWDH I Comments on Water Line	0	2	0	0	2	4	0	8	8	0	0	0	0	0	0	0	0	16
Plan & profiles (Water line) (16)	0	2	0	0	2	8	8	8	8	0	0	0	0	0	0	0	0	28
Utility adjustment, relocation Design	0	2	0	0	2	2	4	8	8	0	0	0	0	0	0	0	0	18
Traffic control plan	0	2	0	0	4	8	8	8	8	0	0	0	0	0	0	0	0	30
Cross sections	0	2	0	0	0	16	24	0	0	0	0	0	0	0	0	0	0	42
Stormwater pollution prevention plans	0	2	0	0	0	2	8	8	8	0	0	0	0	0	0	0	0	20
Signing & pavement markings (8 sheets)	0	1	0	0	1	2	8	8	8	0	0	0	0	0	0	0	0	20
Details/Misc	0	4	0	0	4	8	8	16	0	0	0	0	0	0	0	0	0	40
Complete standard Details	0	0	0	0	0	4	4	2	0	0	0	0	0	0	0	0	0	10
Agency approvals (FWDH I, FBC Drainage District)	0	4	2	2	4	8	0	0	0	0	0	0	0	0	0	0	0	18
Quantities	0	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	17
Cost Estimates	0	1	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	9
Prepare complete project manual (specs, bid forms)	0	8	0	0	16	16	0	0	0	0	0	0	0	0	0	8	0	48
100% Sgn & Sealed Bid ready Package	0	1	1	1	1	1	1	4	4	0	0	0	0	0	0	0	0	8
QA/QC	16	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Subtotal 100% Bid Ready Plans - Final Submittal	16	62	29	57	134	121	114	0	0	0	0	0	0	0	8	10	550	
Contract/Bidding																		
Attend Pre-Bid & Pre-Con Meeting	0	8	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	24
Questions & Addenda	0	8	0	16	8	8	0	0	0	0	0	0	0	0	0	0	0	40
Tabulation & Recommendation of Bid	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	8	24	
Subtotal Contract/Bid	0	44	2	31	34	8	0	0	0	0	0	0	0	0	0	10	128	
Subtotal Phase II Design, Phase & Contract/Bidding																		
	40	270	50	259	426	356	333	0	0	0	0	0	0	0	32	24	1791	
TOTAL HOURS PER, FINAL DESIGN & BIDDING																		
	44	379	118	388	824	500	461	0	0	0	0	0	0	0	48	34	2796	

2020 Fort Bend County Mobility Program

Fort Bend County Project No. 202XX

Sponsor: Fort Bend County

California Street from Trammel Fresno to future Lake Olympia Blvd.

Consultant: Cobb, Fendley & Associates, Inc.

Expense Estimate						
Task	Deliveries	Miles	Mileage (\$0.58 per mile)	Reproduction	Review Fees (TDLR)	Total Cost
Project Management						
Project kick-off meeting (1)	\$0	200	\$116	\$0	\$0	\$116
Attend status meetings (6)	\$0	300	\$174	\$0	\$0	\$174
Prepare invoice (monthly) (12)	\$0		\$0	\$0	\$0	\$0
Update project status (12)	\$0		\$0	\$0	\$0	\$0
Project coordination (project staff & subs)	\$0		\$0	\$0	\$0	\$0
Preliminary Engineering Report						
Data collection	\$0		\$0	\$0	\$0	\$0
Conduct field visits	\$0	500	\$290	\$0	\$0	\$290
Typical sections	\$0		\$0	\$0	\$0	\$0
Horz/Vert alignments	\$0		\$0	\$0	\$0	\$0
Alternatives analysis	\$0		\$0	\$0	\$0	\$0
Traffic studies	\$0		\$0	\$0	\$0	\$0
Drainage studies	\$0		\$0	\$0	\$0	\$0
Construction sequencing/TCP	\$0		\$0	\$0	\$0	\$0
Utility coordination	\$0		\$0	\$0	\$0	\$0
Right-of-Way requirements	\$0		\$0	\$0	\$0	\$0
Construction cost estimate	\$0		\$0	\$0	\$0	\$0
Interagency coordination	\$0		\$0	\$0	\$0	\$0
Prepare draft PER	\$0		\$0	\$0	\$0	\$0
Prepare final PER	\$0		\$0	\$750	\$0	\$750
QA/QC	\$0		\$0	\$0	\$0	\$0
Final Design						
Revise horz/vert alignments	\$0		\$0	\$0	\$0	\$0
Drainage design	\$0	400	\$232	\$0	\$0	\$232
Utility coordination	\$0	300	\$174	\$0	\$0	\$174
Agency approvals (TxDOT, Drainage District, TDLR)	\$0		\$0	\$0	\$0	\$0
Prepare 50% submittal						
Cover sheet	\$0		\$0	\$0	\$0	\$0
Typical sections	\$0		\$0	\$0	\$0	\$0
Layout sheet	\$0		\$0	\$0	\$0	\$0
Drainage area map	\$0		\$0	\$0	\$0	\$0
Plan & profiles	\$0		\$0	\$0	\$0	\$0
Traffic control plan	\$0		\$0	\$0	\$0	\$0
Stormwater pollution prevention plans	\$0		\$0	\$0	\$0	\$0
Traffic signals	\$0		\$0	\$0	\$0	\$0
Illumination	\$0		\$0	\$0	\$0	\$0
Bridges	\$0		\$0	\$0	\$0	\$0
Details	\$0		\$0	\$0	\$0	\$0
Quantities	\$0		\$0	\$0	\$0	\$0
Cost Estimates	\$0		\$0	\$0	\$0	\$0
Technical specifications	\$0		\$0	\$0	\$0	\$0
QA/QC	\$0		\$0	\$0	\$0	\$0
Prepare 100% submittal						
Cover sheet	\$0		\$0	\$0	\$0	\$0
General notes	\$0		\$0	\$0	\$0	\$0
Typical sections	\$0		\$0	\$0	\$0	\$0
Layout sheet	\$0		\$0	\$0	\$0	\$0
Drainage area map	\$0		\$0	\$0	\$0	\$0
Plan & profiles	\$0		\$0	\$0	\$0	\$0
Traffic control plan	\$0		\$0	\$0	\$0	\$0
Cross sections	\$0		\$0	\$0	\$0	\$0
Stormwater pollution prevention plans	\$0		\$0	\$0	\$0	\$0
Traffic signals	\$0		\$0	\$0	\$0	\$0
Signing & pavement markings	\$0		\$0	\$0	\$0	\$0
Illumination	\$0		\$0	\$0	\$0	\$0
Bridges	\$0		\$0	\$0	\$0	\$0
Details	\$0		\$0	\$0	\$0	\$0
Quantities	\$0		\$0	\$0	\$0	\$0
Cost Estimates	\$0		\$0	\$0	\$0	\$0
Prepare project manual (specifications, bid forms)	\$0		\$0	\$0	\$0	\$0
QA/QC	\$0		\$0	\$0	\$0	\$0
Prepare final submittal						
Cover sheet	\$0		\$0	\$0	\$0	\$0
General notes	\$0		\$0	\$0	\$0	\$0
Typical sections	\$0		\$0	\$0	\$0	\$0
Layout sheet	\$0		\$0	\$0	\$0	\$0
Drainage area map	\$0		\$0	\$0	\$0	\$0
Plan & profiles	\$0		\$0	\$0	\$0	\$0
Traffic control plan	\$0		\$0	\$0	\$0	\$0
Cross sections	\$0		\$0	\$0	\$0	\$0
Stormwater pollution prevention plans	\$0		\$0	\$0	\$0	\$0
Traffic signals	\$0		\$0	\$0	\$0	\$0
Signing & pavement markings	\$0		\$0	\$0	\$0	\$0
Illumination	\$0		\$0	\$0	\$0	\$0
Bridges	\$0		\$0	\$0	\$0	\$0
Details	\$0		\$0	\$0	\$0	\$0
Quantities	\$0		\$0	\$0	\$0	\$0
Cost Estimates	\$0		\$0	\$0	\$0	\$0
Prepare complete project manual (specs, bid forms and front end docs)	\$0		\$0	\$500	\$0	\$500
QA/QC	\$0		\$0	\$0	\$0	\$0
Bid Phase						
Attend Pre-Bid Meeting	\$0	200	\$116	\$0	\$0	\$116
Questions & Addenda	\$0		\$0	\$0	\$0	\$0
Tabulation & Recommendation of Bid	\$0		\$0	\$0	\$0	\$0
Total Cost=	\$0		\$1,102	\$1,250	\$0	\$2,352

Survey Dept. Budget Proposal (2022 Rate Schedule)



Date/Prepared By	1/10/2023		
Project:	Existing (See Right)		
Location:			
Client:			
Proposal #			



CobbFendley

Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	STAFF TYPE	RPLS	TECH II	TECH I	LSLS	Drone	Hydro	3-M FC	2-M FC	RESEARCH	CLERICAL	GPS TCH	GPS	TOTALS												
								HOURLY RATE	\$184.00	\$156.00	\$135.00	\$254.00	\$254.00	\$368.00	\$184.00	\$156.00	\$147.00	\$86.00	\$0.00	\$0.00													
Topographic Survey									3	40	50	0	8	0	0	50	0	10	0	0	161												
								\$552.00	\$6,240.00	\$6,750.00	\$0.00	\$2,032.00	\$0.00	\$0.00	\$7,800.00	\$0.00	\$860.00	\$0.00	\$0.00	\$24,234.00													
Boundary (ROW Maps)									24	100	60	0	0	0	0	20	0	0	0	0	204												
								\$4,416.00	\$15,600.00	\$8,100.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$31,236.00													
Abstracting/Research (50 Parcels)									0	0	0	0	0	0	0	0	80	0	0	0	80												
								\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,760.00	\$0.00	\$0.00	\$0.00	\$11,760.00												
Parcel Acquisition (Each)									0	0	0	0	0	0	0	0	0	0	0	0	0												
								\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00												
Right of Entry									2	4	0	0	0	0	0	0	0	20	0	0	26												
								\$368.00	\$624.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,720.00	\$0.00	\$0.00	\$0.00	\$2,712.00												
Control Layout Sheet(s)									8	24	0	0	0	0	0	0	0	0	0	0	32												
								\$1,472.00	\$3,744.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,216.00												
DTM/TIN (Microstation)									2	40	0	0	0	0	0	0	0	0	0	0	42												
								\$368.00	\$6,240.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,608.00												
Boreholes									1	4	0	0	0	0	0	8	0	0	0	0	13												
								\$184.00	\$624.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,056.00												
REIMBURSABLE ESTIMATE																															\$0.00		
TOTAL HOURS PER STAFF TYPE																					40	212	110	0	8	0	0	78	80	30	0	0	558
TOTAL COST PER STAFF TYPE																					\$7,360.00	\$33,072.00	\$14,850.00	\$0.00	\$2,032.00	\$0.00	\$0.00	\$12,168.00	\$11,760.00	\$2,580.00	\$0.00	\$0.00	\$83,822.00
*Boundary survey amount shown is subject to state sales tax, and is NOT included in the totals listed hereon.																																	

Survey Dept. Budget Proposal (2022 Rate Schedule)

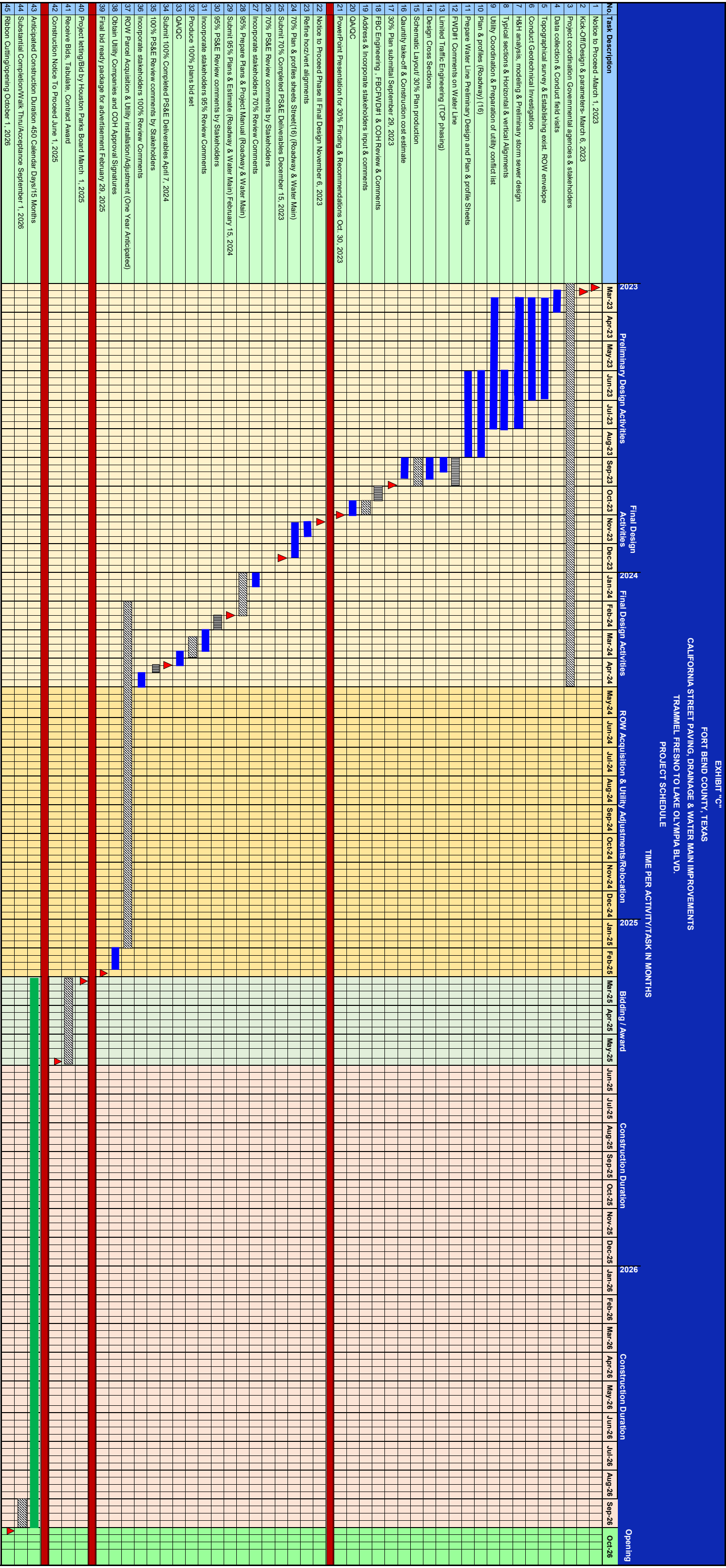


Date/Prepared By	1/10/2023		
Project:	Existing (See Right)	D/cfa	Note:
Location:			
Client:			
Proposal #			
	For Information Only		Price Per Parcel Acquisition
			10 HOUR DAYS FOR FIELD TIME
			8 HOUR DAYS FOR OFFICE TIME



CobbFendley

	STAFF TYPE	RPLS	TECH II	TECH I	LSLS	Drone	Hydro	3-M FC	2-M FC	RESEARCH	CLERICAL	GPS TCH	GPS	TOTALS
	HOURLY RATE	\$184.00	\$156.00	\$135.00	\$254.00	\$254.00	\$368.00	\$184.00	\$156.00	\$147.00	\$86.00	\$0.00	\$0.00	
Task 1	Topographic Survey	0	0	0	0	0	0	0	0	0	0	0	0	0
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 2	Boundary (ROW Maps)				0	0	0	0		0	0	0	0	0
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 3	Abstracting/Research (50 Parcels)	0	0	0	0	0	0	0	0		0	0	0	0
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 4	Parcel Acquisition (Each)	2	8	4	0	0	0	0	2	0	0	0	0	16
		\$368.00	\$1,248.00	\$540.00	\$0.00	\$0.00	\$0.00	\$0.00	\$312.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,468.00
Task 5	Right of Entry	0	0	0	0	0	0	0	0	0	0	0	0	0
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 6	Control Layout Sheet(s)	0	0	0	0	0	0	0	0	0	0	0	0	0
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 7	DTM/TIN (Microstation)	0	0	0	0	0	0	0	0	0	0	0	0	0
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 8	Boreholes	0	0	0	0	0	0	0	0	0	0	0	0	0
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
REIMBURSABLE ESTIMATE														\$0.00
TOTAL HOURS PER STAFF TYPE		2	8	4	0	0	0	0	2	0	0	0	0	16
TOTAL COST PER STAFF TYPE		\$368.00	\$1,248.00	\$540.00	\$0.00	\$0.00	\$0.00	\$0.00	\$312.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,468.00
*Boundary survey amount shown is subject to state sales tax, and is NOT included in the totals listed hereon.														



September 29, 2022



Cobb Fendley & Associates Inc
13430 Northwest Freeway, Suite 1100
Houston, Texas 77040

Attn: Mr. Mahmoud Salehi, P.E.
P: 713 504 3665
E: msalehi@cobb fendley.com

Re: Cost Estimate for Geotechnical Engineering Services
California Street Reconstruction
Fort Bend County, Texas
Terracon Document No. P92225498

Dear Mr. Salehi:

Terracon Consultants, Inc. (Terracon) understands that we have been selected based on qualifications to provide Geotechnical Engineering services for the above referenced project. The following exhibits outline our understanding of the scope of services to be performed by Terracon for this project and provides an estimate of the cost of our services.

Exhibit A	Project Understanding
Exhibit B	Scope of Services
Exhibit C	Compensation and Project Schedule
Exhibit D	Site Location
Exhibit E	Anticipated Exploration Plan

Our base fee to perform the Scope of Services described in this document is **\$17,500**. See **Exhibit C** for more details of our fees and consideration of additional services.

We understand that these services are planned to be performed under a mutually agreed upon agreement for services between Terracon Consultants, Inc. and Cobb Fendley & Associates Inc. If you have any questions regarding our planned scope of services, please do not hesitate to contact us.

Sincerely,
Terracon Consultants, Inc.
(Texas Firm Registration No.: F-3272)



Ammar Ali, Ph.D.
Staff Geotechnical Professional



Rebecca L. Cummins, P.E.
Group Manager



Brian C. Ridley, P.E.
Geotechnical Services Manager

EXHIBIT A - PROJECT UNDERSTANDING

Our Scope of Services is based on our understanding of the project as described by Cobb Fendley & Associates Inc. We have not visited the project site to confirm the information provided. Aspects of the project, undefined or assumed, are highlighted as shown below. We request the design team verify all information prior to our initiation of field exploration activities.

Site Location

Item	Description
Project location	The project is located along California Street and Live Oak Road approximately 6,500 feet from Trammel Fresno Road to future Lake Olympia Parkway in Fort Bend County, Texas. See Exhibit D .
Existing improvements	Based on available aerial photographs, we understand that California Street and Live Oak Road are two-lane asphaltic concrete roadways with shallow bar ditches on either side. Various overhead power lines are located adjacent to the roadway.
Existing topography	Relatively level.
Site access	We expect the site and exploration locations are accessible with our truck-mounted drilling equipment during the hours of 9 am and 3 pm utilizing traffic control services.

Planned Construction

Item	Description
Project description	<p>We understand California Street and Live Oak Road between Trammel Fresno Road and future Lake Olympia Parkway are currently two-lane (12-foot lanes) with two 6-foot shoulders with bar ditches on either side of the roadway. We understand that utilities along the roadway may be relocated as part of the road reconstruction.</p> <p>In addition, we understand a detention pond is planned near the roadway alignment. The location of the pond is unknown at the time of this cost estimate and will be determined by the County. We request the location be provided to us prior to the start of our field program. The detention pond is included in our scope as an additional item.</p>

Item	Description
Proposed improvements	<p>We understand the following improvements are planned to be designed and constructed in accordance with Fort Bend County standards:</p> <ul style="list-style-type: none"> ■ Either asphaltic concrete or concrete pavements are planned along California Street and Live Oak Road. ■ We assume the proposed utilities that may be relocated as part of this project are planned to have maximum embedment depths of 10 feet and are to be constructed using open-cut construction methods. ■ We assume the detention pond footprint will be a maximum of 5 acres in size and that the depth will be no greater than 10 feet. Once the location of the pond is determined by the County, we request the location be provided to us. We request the opportunity to review and revise the number and depth of the borings based on the actual size of the detention pond, once available.
Pavements	<p>Local roadways with residential traffic consisting of passenger vehicles, delivery and garbage trucks, and school buses. We understand 2,000,000 Equivalent Single Axle Load (ESALs) will be used to design the pavement thickness.</p>

EXHIBIT B - SCOPE OF SERVICES

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. These services are described in the following sections.

Field Exploration

The field exploration program consists of the following:

Planned Location	Number of Borings	Planned Boring Depth ¹ (feet)
California Street and Live Oak Road	13	15
Total		195

1. Below grade at the time of our field program.

In addition, we understand the detention pond has been requested to be included as an additional item. The field exploration for the detention pond is planned to consist of the following:

Planned Location	Number of Borings	Planned Boring Depth ¹ (feet)
Detention pond ²	5	15
Total		75

1. Below grade at the time of our field program.

2. Location to be determined by the County prior to our field exploration. We request the opportunity to review and revise the number and depth of the borings based on the actual size of the detention pond, once available. One piezometer will be installed at the detention pond area.

Boring Layout and Elevations: We will use handheld GPS equipment to locate borings with an estimated horizontal accuracy of +/-25 feet. Field measurements from existing site features may be utilized. If available, approximate elevations will be obtained by interpolation from a site specific, surveyed topographic map.

Subsurface Exploration Procedures: We will advance the soil borings along California Street and Live Oak Road with a truck-mounted drill rig and the detention pond borings with an ATV mounted drill rig using solid stem continuous flight augers. Samples will be obtained continuously in the upper 12 feet of each boring and at intervals of 5 feet thereafter. Soil sampling is typically performed using open-tube and/or split-barrel sampling procedures. The split-barrel samplers are driven in accordance with the standard penetration test (SPT). The samples will be placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer. In addition, we will observe and record groundwater levels during drilling and sampling.

Terracon will observe and record groundwater levels during drilling and sampling. In addition, we plan to install one temporary piezometer at one of the detention pond borings to observe groundwater levels in the installed piezometer at about one day, 7 days, and 30 days after the completion of drilling. The piezometer is planned to be removed and backfilled by Terracon after all piezometer readings have been taken.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs include visual classifications of materials observed during drilling, and our interpretation of subsurface conditions between samples. Final boring logs, prepared from field logs, represent the Geotechnical Engineer's interpretation, and include modifications based on observations and laboratory tests.

Property Disturbance: We will backfill borings with auger cuttings upon completion and patch the pavements with an asphaltic concrete patch where applicable. Our services do not include repair of the site beyond backfilling our boreholes and cold patching existing pavements. Excess auger cuttings will be dispersed in the general vicinity of the borehole or in nearby grassy areas. Because backfill material often settles below the surface after a period, we recommend boreholes to be periodically checked and backfilled, if necessary. We can provide this service, or grout the boreholes for additional fees, at your request.

Site Access: Terracon must be granted access to the site by the property owner. By acceptance of this cost estimate, without information to the contrary, we consider this as authorization to access the property for conducting field exploration in accordance with the Scope of Services.

Traffic Control: Based on our observations of the area of improvements, we anticipate that traffic control services will be required for our field program along the existing roadways. Traffic control is planned to consist of cones and signs for lane closures in accordance with the Texas Manual on Uniform Traffic Control Devices (Texas MUTCD).

Safety

Terracon is not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our Scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our Scope of Services does not include environmental site assessment services, but identification of unusual or unnatural materials encountered while drilling will be noted on our logs and discussed in our report.

Exploration efforts require borings (and possibly excavations) into the subsurface, therefore Terracon will comply with Texas 811, a free utility locating service, to help locate public utilities within dedicated public easements. We will consult with the owner/client regarding potential utilities, or other unmarked underground hazards. Based upon the results of this consultation, we

will consider the need for alternative subsurface exploration methods, as the safety of our field crew is a priority.

Consultant will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any third parties, including Client's contractors, subcontractors, or other parties present at the site. In addition, Consultant retains the right to stop work without penalty at any time Consultant believes it is in the best interests of Consultant's employees or subcontractors to do so in order to reduce the risk of exposure to COVID-19. Client agrees it will respond quickly to all requests for information made by Consultant related to Consultant's pre-task planning and risk assessment processes. Client acknowledges its responsibility for notifying Consultant of any circumstances that present a risk of exposure to the coronavirus or individuals who have tested positive for COVID-19 or are self-quarantining due to exhibiting symptoms associated with COVID-19.

Laboratory Testing

The project engineer will review field data and assign laboratory tests to understand the engineering properties of various soil strata. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods may be applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed. The anticipated laboratory testing may include the following:

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D1140 Standard Test Methods for Amount of Materials in Soils Finer than the No. 200 Sieve
- ASTM D2166/D2166M Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
- ASTM D7263 Standard Test Methods for Laboratory Determination of Density and Unit Weight of Soil Specimens

Our laboratory testing program includes examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we will describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

Engineering and Project Delivery

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

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

Your project will be delivered using our **GeoReport®** system. Upon initiation, we provide you and your design team the necessary link and password to access the website (if not previously registered). Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. The typical delivery process includes the following:

- Project Planning – Cost estimate information, schedule and anticipated exploration plan will be posted for review and verification
- Site Characterization – Findings of the site exploration
- Geotechnical Engineering – Recommendations and geotechnical engineering report

When utilized, our collaboration portal documents communication, eliminating the need for long email threads. This collaborative effort allows prompt evaluation and discussion of options related to the design and associated benefits and risks of each option. With the ability to inform all parties as the work progresses, decisions and consensus can be reached faster. In some cases, only minimal uploads and collaboration will be required, because options for design and construction are limited or unnecessary. This is typically the case for uncomplicated projects with no anomalies found at the site.

When services are complete, we upload a printable version of our completed geotechnical engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

The geotechnical engineering report will provide the following:

- Boring logs with field and laboratory data
- Stratification based on visual soil classification
- Groundwater levels observed during drilling and sampling
- Groundwater levels observed in the piezometers
- Site and boring location plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Subgrade preparation/earthwork recommendations
- Recommendations for excavations and temporary groundwater control
- Open-cut construction recommendation
- Utility bedding and backfill
- Pavement design guidelines

If the detention pond is included in our scope, the geotechnical engineering report will also include the following:

- Detention pond construction considerations
- Global stability analyses of the detention pond side slopes for a maximum of two cross-sections
- Slope protection and erosion control

EXHIBIT C - COMPENSATION AND PROJECT SCHEDULE

Compensation

Based upon our understanding of the site, the project as summarized in **Exhibit A**, and our planned Scope of Services outlined in **Exhibit B**, our base fee is shown in the following table:

Task	Lump Sum Fee
Subsurface Exploration, Laboratory Testing, Geotechnical Consulting & Reporting	\$13,500
Traffic Control (\$2,000/day) ¹	4,000
Total	17,500

1. We estimate up to two days of traffic control will be required to complete the field program.

Additional services not part of the base fee include the following:

Task	Lump Sum Fee
Subsurface Exploration, Laboratory Testing, Geotechnical Consulting and Reporting for the Detention Pond ¹	\$8,500
Clearing of Pathways (1 day) ²	\$3,000 to 4,000

1. This cost assumes that our scope associated with the roadway and detention pond will be completed concurrently, and that one geotechnical engineering report will be submitted. As stated previously, we request the opportunity to review and revise our scope based on the actual size and depth of the detention pond, if needed.
2. If the detention pond site is heavily wooded at the time of our field program. The tree debris would be moved away from the cleared pathways but not removed from the site. Clearing of pathways shall not exceed one working day.

Our Scope of Services does not include services associated with survey of boring locations, special equipment for wet/soft ground conditions, tree or shrub clearing, or repair of damage to existing landscape. If such services are desired by the owner/client, we should be notified so we can adjust our Scope of Services.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this cost estimate. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental cost estimate stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization.

Project Schedule

We developed a schedule to complete the Scope of Services based upon our existing availability and understanding of your project schedule. However, this does not account for delays in field exploration beyond our control, such as weather conditions, permit delays, or lack of permission to access the boring locations. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

GeoReport® Delivery	Posting Schedule ^{1, 2}
Project Planning	5 working days from notice to proceed
Field Work Mobilization	10 to 15 working days from notice to proceed
Site Characterization	15 working days from completion of field program
Geotechnical Engineering Report	20 working days from completion of field program

1. Upon receipt of your notice to proceed we will activate the schedule component of our **GeoReport®** website with specific, anticipated calendar days for the three delivery points noted above as well as other pertinent events such as field exploration crews on-site, etc.
2. We will maintain a current calendar of activities within our **GeoReport®** website. In the event of a need to modify the schedule, the schedule will be updated to maintain a current awareness of our plans for delivery.

EXHIBIT D – SITE LOCATION

California Street Reconstruction ■ Fort Bend County, Texas
September 29, 2022 ■ Terracon Document No. P92225498

Terracon

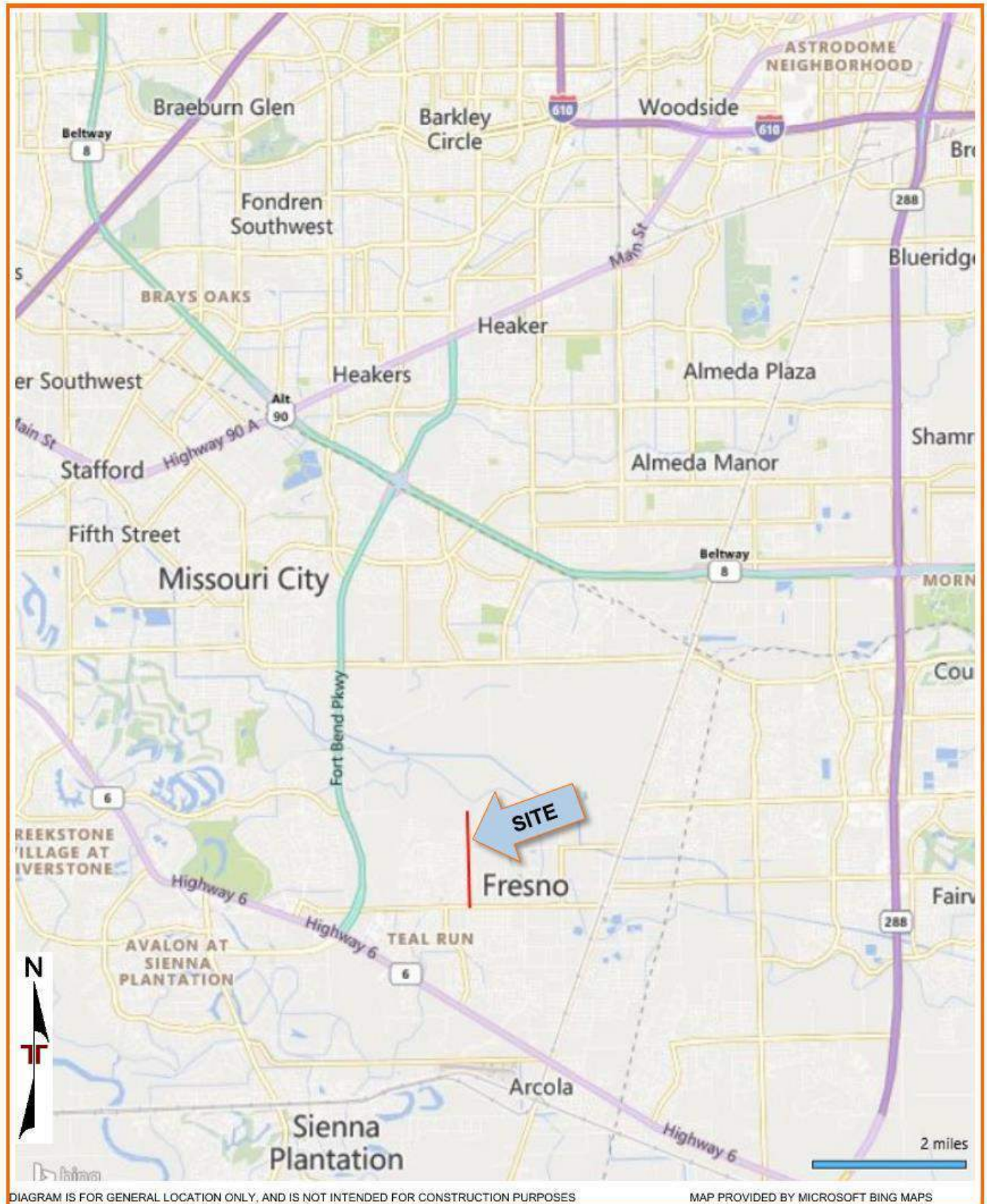


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXHIBIT E – ANTICIPATED EXPLORATION PLAN

California Street Reconstruction ■ Fort Bend County, Texas
September 29, 2022 ■ Terracon Document No. P92225498

Terracon



JANUARY 2023

2 Lane Open Ditch Configuration (FLEXIBLE PAVEMENT) and installation of 8-inch Water Main

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
SITE PREPARATION						
1	2233	Prep. ROW Clearing and Grubbing	STA	65	\$ 2,000.00	\$ 130,000.00
2	2221	Removal of existing pavement (all inclusive)	SY	8,500	\$ 15.00	\$ 127,500.00
3	2315	Roadway Excavation	CY	10,000	\$ 15.00	\$ 150,000.00
4	2221	Removal of existing storm sewer pipes (all inclusive)	LF	975	\$ 15.00	\$ 14,625.00
5	FBC	Project Identification Sign	EA	2	\$ 1,500.00	\$ 3,000.00
Subtotal Site Preparation						\$ 425,125.00
PAVEMENT						
6	2336	Lime Stabilized Subgrade (8" Thick)	SY	22,277	\$ 5.00	\$ 111,385.00
7	2336	Type A, Hydrated Lime (Estimated at 6% by Dry Weight)	TON	441	\$ 200.00	\$ 88,200.00
8	250	HMAC Base Course (Black Base) (8") for roadway	TON	7,984	\$ 170.00	\$ 1,357,280.00
9	310	Prime Coat (0.35 GAL/SY)	GAL	6,113	\$ 5.00	\$ 30,565.00
10	340	Hot-Mix Hot-Laid Asphaltic Concrete (Surface Course) (3")	TON	3,031	\$ 180.00	\$ 545,580.00
11	340	Tack Coat (0.25 GAL/SY)	GAL	4,366	\$ 6.00	\$ 26,196.00
12	2751	Reinforced Concrete Driveways (7" Thick)	SY	667	\$ 75.00	\$ 50,025.00
13	530	ADA Ramp (Type 7)	EA	10	\$ 1,500.00	\$ 15,000.00
14	2775	Concrete Sidewalk/6-ft wide Shared use path	SF	71,119	\$ 6.50	\$ 462,273.50
Subtotal Paving						\$ 2,686,504.50
STORM SEWER						
15	02260	Trench Safety System (5 to 10 feet)	LF	3,000	\$ 2.00	\$ 6,000.00
16	02631	24" diameter RCP storm sewer by open cut	LF	1,500	\$ 110.00	\$ 165,000.00
17	02631	30" diameter RCP storm sewer by open cut	LF	1,300	\$ 125.00	\$ 162,500.00
18	02631	36" diameter RCP storm sewer by open cut	LF	1,000	\$ 150.00	\$ 150,000.00
19	02082	Precast Concrete Manhole (All Depths)	EA	6	\$ 5,500.00	\$ 33,000.00
20	TxDOT467	SET (Type II) (24") (4:1) (P)	EA	6	\$ 3,000.00	\$ 18,000.00
21	DWG	Detention Pond including earthwork/inflow & outflow structure with Trash Rack & Perimeter Fencing	LS	1	\$ 500,000.00	\$ 500,000.00
Subtotal Storm Sewer						\$ 701,000.00
SIGNING & PAVEMENT MARKINGS						
22	02767	Signing and Striping	LS	1	\$ 39,000.00	\$ 39,000.00
Subtotal Signing & Pavement Markings						\$ 39,000.00
TRAFFIC CONTROL						
23		Traffic Control Plan	LS	1	\$ 390,000.00	\$ 390,000.00
Subtotal Traffic Control						\$ 390,000.00
SWPPP						
25	05170	SWPPP	LS	1	\$ 130,000.00	\$ 130,000.00
Subtotal SWPPP						\$ 130,000.00
WATER						
26	2221	Trench Safety	LF	6400	\$ 1.00	\$ 6,400.00
27	2221	Removal of existing Water Line pipes (all inclusive)	LF	3000	\$ 10.00	\$ 30,000.00
28	2511	8" WM Complete with oppurtunances (open cut)	LF	6,455	\$ 90.00	\$ 580,950.00
29	2520	Fire Hydrants (complete in place)	EA	5	\$ 8,000.00	\$ 40,000.00
30	2520	Fire Hydrant (Relocation)	EA	8	\$ 3,500.00	\$ 28,000.00
31		Contingencies @ 10%				\$ 68,535.00
32		Professional Services				\$ 50,000.00
Subtotal Water Line						\$ 803,885.00
SUBTOTAL CONSTRUCTION COST						\$ 5,056,979.50
CONTINGENCIES						
Contingencies @ 20%						\$ 1,011,395.90
Subtotal Contingencies						\$ 1,011,395.90
TOTAL ESTIMATED COST						\$ 6,068,375.40

**PROPOSED 8-INCH WATER MAIN ALONG CALIFORNIA STREET
FROM TRAMMEL FRESNO TO PROPOSED LAKE OLYMPIA PARKWAY (6,450 LF, 1.22 Miles)
PRELIMINARY CONSTRUCTION COST ESTIMATE**

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
SITE PREPARATION						
1	2221	Trench Safety	LF	6,400	\$ 1.00	\$ 6,400.00
2	2221	Removal of existing Water Line pipes (all inclusive)	LF	3,000	\$ 10.00	\$ 30,000.00
Subtotal Site Preparation						\$ 36,400.00
WATER						
3	2511	8" WM Complete with oppurtunances (all ionclusive)(open cut)	LF	6,455	\$ 90.00	\$ 580,950.00
4	2520	Fire Hydrants (complete in place)	EA	5	\$ 8,000.00	\$ 40,000.00
5	2520	Fire Hydrant (Relocation)	EA	8	\$ 3,500.00	\$ 28,000.00
Subtotal Water Line						\$ 648,950.00
SUBTOTAL CONSTRUCTION COST						\$ 685,350.00
CONTINGENCIES						
Contingencies @ 10%						\$ 68,535.00
Subtotal Contingencies						\$ 68,535.00
Professional Services (Design Only)						
Professional Services						\$ 50,000.00
Subtotal Professional Services						\$ 50,000.00
TOTAL ESTIMATED COST						\$ 803,885.00