

ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT is made and entered into by and between the Fort Bend County Toll Road Authority, a Local Government corporation organized and operating under the laws of the State of Texas, hereinafter called the “FBCTRA” and Cobb Fendley & Associates, Inc, hereinafter called “Engineer.”

WITNESSETH

WHEREAS, the FBCTRA proposes to engage a Professional Services firm for design engineering and other services of the extension of the Fort Bend Parkway Toll Road, Segment D, from STA 1500+00 to STA 2041+00 (West Of SH 36 to East of FM 762), in Fort Bend County, Texas, (the “Project”);

WHEREAS, the FBCTRA desires to enter into an agreement with Engineer for the performance of services during the Project, that are within the scope of services in Attachment A (“Scope of Services”).

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

AGREEMENT

1. **General**

The Engineer shall render professional services to FBCTRA related to the Project as defined in the Scope of Services in Attachment A.

The standard of care for all professional engineering or surveying and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of Engineer’s profession practicing under similar conditions at the same time and in the same locality.

2. **Compensation and Payment**

a. The Maximum Compensation under this Agreement is \$934,981.00 The amount paid under this Agreement may not exceed the Maximum Compensation without an approved supplemental agreement.

Compensation for the performance of services within the Scope of Services described in Attachment A will be paid as hourly time and expenses not to exceed \$934,981.00, as shown in Attachment B. Progress payments for work detailed in Attachment A will be made when the Engineer has attained a level of completion equal to or greater than agreed upon milestones of completion in the reasonable opinion of the FBCTRA.

The Engineer shall furnish satisfactory documentation of such work (e.g. timesheets, billing rates, classifications, invoices, etc.) as may be required by FBCTRA.

b. All performance of the Scope of Services and any services outside the Scope of Services (“Additional Services”), including changes in the contractual scope of work and revision of work satisfactorily performed, will be performed only when approved in advance and authorized by the FBCTRA, and Additional Services will be

reimbursed based on the billing rates in effect at that time, to the extent that such labor costs and subcontracts are reasonable and necessary for the performance of such services. Out-of-pocket expense costs may be reimbursed only when approved in advance and authorized by the FBCTRA. Payment will be made (i) on the basis of project progress to be billed monthly and, for Additional Services, (ii) on the basis of time and expense records, and in accordance with those payment procedures set forth in subsection d. below. Billing rates will be inclusive of all direct labor, fringe benefits, general overhead, and profit.

- c. Where subcontractors are employed by the Engineer to perform pre-approved and pre-authorized Additional Services, the Engineer will be reimbursed for subcontractors' actual salaries and hourly rates, including overtime rates. Reimbursement to the subcontractor for non-salary costs incurred by subcontractor will be on the same basis as if the cost was incurred by the Engineer. For subcontractors employed for the convenience of the FBCTRA, the Engineer will be paid a subcontract administrative fee equal to ten percent (10%) of all subcontractor invoiced amounts.
- d. It is understood and agreed that monthly payments will be made to the Engineer by the FBCTRA based on the following procedures: On or about the fifteenth day of each month during performance of services hereunder and on or about the fifteenth day of the month following completion of all services hereunder, the Engineer shall submit to the FBCTRA one copy of invoice showing the amounts due for services performed during the previous month, set forth separately for work under this Agreement, a Progress Report, and for any Additional Services (accompanied by supporting certified time and expense records of such charges in a form acceptable to the FBCTRA). It is specifically understood that any requests for travel reimbursements shall comply with those procedures for travel reimbursement to Fort Bend County (the "County") employees established by the Fort Bend County Auditor (the "Auditor"). The FBCTRA 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. The County shall pay each such invoice as approved by the FBCTRA within thirty (30) calendar days after the FBCTRA's approval of same.

3. Time of Performance

It is understood and agreed that the time for performance of the Engineer's services under this Agreement shall begin with receipt of the Notice to Proceed. The Engineer will maintain the delivery schedule to be provided by the FBCTRA.

This Agreement will terminate upon the Engineer's completion of the Scope of Services to the satisfaction of the FBCTRA.

4. The FBCTRA's Option to Terminate

- a. The FBCTRA has the right to terminate this Agreement at its sole option at any time, with or without cause, by providing 30 days written notice of such intentions to terminate and by stating in said notice the "Termination Date" which shall be less

than 30 days later than the actual receipt of such written notice by the Engineer. Upon such termination, the FBCTRA shall compensate the Engineer in accordance with Section 2, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to the FBCTRA. The Engineer's final invoice for said services will be presented to and paid by the FBCTRA in the same manner set forth in Section 2(d), above.

- b. Termination of this Agreement and payment as described in subsection (a) of this section shall extinguish all rights, duties, obligations, and liabilities of the FBCTRA and the Engineer under this Agreement, and this Agreement shall be of no further force and effect, provided, however, such termination shall not act to release the Engineer from liability for any previous default either under this Agreement or under any standard of conduct set by common law or statute. The obligations in Sections 5, 6, and 14 of this Agreement shall survive the termination of this Agreement.
- c. If the FBCTRA terminates this Agreement as provided in this section, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to the Engineer.
- d. The FBCTRA's rights and options to terminate this Agreement, as provided in any provision of this Agreement shall be in addition to, and not in lieu of, any and all rights, actions, and privileges otherwise available under law or equity to the FBCTRA by virtue of this Agreement or otherwise. Failure of the FBCTRA to exercise any of its said rights, actions, options, or privileges to terminate this Agreement as provided in any provision of this Agreement shall not be deemed a waiver of any rights, actions, or privileges otherwise available under the law or equity with respect to any continuing or subsequent breaches of this Agreement or of any other standard of conduct set by common law or statute.
- e. Copies of all completed and partially completed documents prepared under this Agreement shall be delivered to the FBCTRA within 30 days of the Termination Date or upon Engineer's receipt of fees due and payable at the Termination Date, whichever is sooner, when and if this Agreement is terminated.

5. Inspection of the Engineer's Books and Records

Upon written notice (including email), the Engineer will permit the FBCTRA, or any duly authorized agent of the FBCTRA, to inspect and examine the books and records of the Engineer for the purpose of verifying the amount of work performed on the Project at reasonable times during normal business hours. FBCTRA's right to inspect survives the termination of this Agreement for a period of four years.

6. Ownership and Reuse of Documents

Upon payment in full for undisputed amounts of Engineer's services, all documents, including original drawings, estimates, specifications, field notes, and data created, produced, developed or prepared by Engineer or its approved outside advisory or support consultants (collectively, the "Documents") shall be the property of the FBCTRA, subject to all of the following terms and conditions; provided, however, FBCTRA shall not own and

shall have no right to receive any documents not deemed “final” by the Engineer until completion or termination of this Agreement, as applicable. Engineer will deliver the Documents to FBCTRA within 30 days of the completion or termination of this Agreement and may retain a set of reproducible record copies of the Documents, provided that the Engineer has received full compensation due pursuant to the terms of this Agreement. It is mutually agreed that FBCTRA will use the Documents solely in connection with the Project and for no other purposes, except with the express written consent of the Engineer, which consent will not be unreasonably withheld. Any use of the Documents without the express written consent of the Engineer will be at FBCTRA’s sole risk and without liability or legal exposure to Engineer.

FBCTRA shall also be the owner of all intellectual property rights of the services rendered hereunder, including all rights of copyright therein. It is the intention of Engineer and FBCTRA that the services provided are a “work for hire” as the term is used in the federal Copyright Act. Moreover, Engineer hereby agrees to assign, and by these presents, does assign to FBCTRA, all of Engineer’s worldwide right, title, and interest in and to such work product and all rights of copyright therein.

Engineer agrees that all trademarks, trade names, service marks, logos, or copyrighted materials of FBCTRA that Engineer is permitted to use in connection with the services will not be used without FBCTRA’s consent and shall remain the sole and exclusive properties of FBCTRA, and this Agreement does not confer upon Engineer any right or interest therein or in the use thereof.

7. Personnel, Equipment, and Material

- a. The Engineer represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Services required under this Agreement and that the Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel and equipment, in the opinion of the FBCTRA, to perform the Scope of Services when and as required and without delays. It is understood that the FBCTRA will approve assignment and release of all key Engineer personnel and that the Engineer shall submit written notification of all key Engineer personnel changes for the FBCTRA’s approval prior to the implementation of such changes. For the purpose of this Agreement, key Engineer personnel are defined as: Project Manager. Services described in this Agreement shall be performed under the direction of an engineer and a surveyor licensed to practice professional engineering and surveying in the State of Texas.
- b. All employees of the Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of the Engineer who, in the opinion of the FBCTRA, is incompetent, or, by his conduct, becomes detrimental to the Project, shall, upon request of the FBCTRA, immediately be removed from association with the Project.
- c. Except as otherwise specified, the Engineer shall furnish all equipment, transportation, supplies, and materials required for its operation under this Agreement.

8. Items to be furnished to Engineer by the FBCTRA

As applicable, the following items will be supplied to the Engineer:

- a. Copies of preliminary studies by others.
- b. Assistance in coordination with all utility companies.
- c. Assistance in coordination with all public and governmental entities.

9. Subletting

The Engineer shall not sublet, assign, or transfer any part of its rights or obligations in this Agreement without the prior written approval of the FBCTRA. Responsibility to the FBCTRA for sublet work shall remain with the Engineer.

10. Conference

At the request of the FBCTRA, the Engineer shall provide appropriate personnel for conferences at its offices, or attend conferences at the various offices of the FBCTRA, or at the site of the Project, and shall permit inspections of its offices by the FBCTRA, or others when requested by the FBCTRA.

11. Appearance as Witness

If requested by the FBCTRA, or on its behalf, the Engineer shall prepare such engineering and/or surveying exhibits and plans as may be requested for all hearings and trials related to the Project and, further, it shall prepare for and appear at conferences at the office of the FBCTRA and shall furnish competent expert engineering and/or surveying witnesses to provide such oral testimony and to introduce such demonstrative evidence as may be needed throughout all trials and hearings with reference to any litigation relating to the Project. Trial preparation and appearance by the Engineer in courts regarding litigation matters are Additional Services and compensation will be paid in accordance with Section 2(b).

12. Compliance with Laws

The Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, the Engineer shall furnish the FBCTRA with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

13. Insurance

The Engineer shall obtain and maintain, throughout the term of the Agreement, insurance of the types and in the minimum amounts set forth in Attachment C.

14. Indemnification

With respect to claims brought by third parties against either Engineer or the FBCTRA relating to the property or facilities with respect to which this Agreement pertains, Engineer and the FBCTRA agree as follows:

- a. **ENGINEER WILL INDEMNIFY AND HOLD HARMLESS THE FBCTRA, ITS DIRECTORS, OFFICERS, AND EMPLOYEES AGAINST ANY CLAIMS, DEMANDS OR CAUSES OF ACTION; AND COSTS, LOSSES, LIABILITIES, EXPENSES AND JUDGMENTS INCURRED IN CONNECTION THEREWITH, INCLUDING REASONABLE ATTORNEY'S FEES AND COURT COSTS, BROUGHT BY ANY OF ENGINEER'S EMPLOYEES OR REPRESENTATIVES, OR BY ANY OTHER THIRD PARTY, BASED UPON, IN CONNECTION WITH, RESULTING FROM OR ARISING OUT OF THE NEGLIGENT ACTS, ERRORS OR OMISSIONS OF ENGINEER; HOWEVER, ENGINEER'S CONTRACTUAL OBLIGATION OF INDEMNIFICATION SHALL NOT EXTEND TO THE NEGLIGENCE OR OTHER FAULT OF THE FBCTRA OR STRICT LIABILITY IMPOSED UPON THE FBCTRA AS A MATTER OF LAW (INCLUDING STRICT LIABILITY IMPOSED UPON THE FBCTRA AS A RESULT OF THE CONDITION OF THE PROPERTY OR FACILITIES WITH RESPECT TO WHICH THIS AGREEMENT PERTAINS).**
- b. In the event that both the FBCTRA and Engineer are adjudicated negligent or otherwise at fault or strictly liable without fault with respect to damage or injuries sustained by the claimant, each shall be responsible for its own costs of litigation and pro rata share of damages as determined by the proceedings. It is a condition precedent to the indemnitor's contractual obligation of indemnification under this Agreement that the party seeking indemnity shall provide written notice of a third party claim, demand, or cause of action within 30 days after such third party claim, demand, or cause of action is received by the party seeking indemnity. It is a further condition precedent to the indemnitor's contractual obligation of indemnification under this Agreement that the indemnitor shall thereafter have the right to participate in the investigation, defense, and resolution of such third party claim.

15. Dispute Resolution

Except as expressly provided in Section 4. Option to Terminate, if a dispute arises out of, or relates to, the breach thereof, and if the dispute cannot be settled through negotiation, then the FBCTRA and the Engineer agree to submit the dispute to mediation. In the event the FBCTRA or the Engineer desires to mediate any dispute, that party shall notify the other party in writing of the dispute desired to be mediated. If the parties are unable to resolve their differences within 10 days of the receipt of such notice, such dispute shall be submitted for mediation in accordance with the procedures and rules of the American Arbitration Association (or any successor organization) then in effect. The deadline for submitting the dispute to mediation can be changed if the parties mutually agree in writing to extend the time between receipt of notice and submission to mediation. The expenses of the mediator shall be shared 50 percent by the FBCTRA and 50 percent by the Engineer. This requirement to seek mediation shall be a condition required before filing an action at law or in equity.

16. Delivery of Notices, Etc.

- a. All written notices, demands, and other papers or documents to be delivered to the FBCTRA under this Agreement, shall be delivered to the Fort Bend County Toll Road Authority, 245 Commerce Green Blvd., Suite 165, Sugar Land, Texas, 77478, Attention: Executive Director, or at such other place or places as it may from time to time designate by written notice delivered to the Engineer. For purposes of notice under this Agreement, a copy of any notice or communication hereunder shall also be forwarded to the following address: Fort Bend County Clerk, 301 Jackson Street, Richmond, Texas 77469, Attention: County Judge.
- b. All written notices, demands, and other papers or documents to be delivered to the Engineer under this Agreement shall be delivered to Cobb Fendley & Associates, Inc., 4424 W. Sam Houston Parkway N, Suite 600, Houston, TX 77041, Attention: Lisa Garner, PE, or such other place or places as the Engineer may designate by written notice delivered to the FBCTRA.

17. Reports of Accidents, Etc.

Within 24 hours after the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of the Engineer), whether or not it results from or involves any action or failure to act by the Engineer or any employee or agent of the Engineer and which arises in any manner from the performance of this Agreement, the Engineer shall send a written report of such accident or other event to the FBCTRA, setting forth a full and concise statement of the facts pertaining thereto. The Engineer shall also immediately send the FBCTRA a copy of any summons, subpoena, notice, other documents served upon the Engineer, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from the Engineer's performance of work under this Agreement.

18. The FBCTRA's Acts

Anything to be done under this Agreement by the FBCTRA may be done by such persons, corporations, or firms as the FBCTRA may designate.

19. Limitations

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

20. Captions Not a Part Hereof

The captions of subtitle of the several sections and divisions of this Agreement constitute no part of the content hereof but are only labels to assist in locating and reading the provisions hereof.

21. Controlling Law, Venue

This Agreement shall be governed and construed in accordance with the laws of the State of Texas. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all disputes arising hereunder and waive the right to sue or be sued elsewhere.

22. Successors and Assigns

The FBCTRA and the Engineer bind themselves and their successors, executors, administrators, and assigns to the other party of this Agreement and to the successors, executors, administrators, and assigns of the other party, in respect to all covenants of this Agreement.

23. Statutory Terms Applicable To State Political Subdivisions

a. Contractor certifies and agrees that it (i) does not, nor will not, so long as the Agreement remains in effect, boycott Israel, as such term is defined in Chapter 808, Texas Government Code, (ii) does not engage in business with Iran, Sudan, or any foreign terrorist organization pursuant to Subchapter F of Chapter 2252 of the Texas Government Code; (iii) is not identified on a list prepared and maintained under Sections 806.051, 807.051, or 2252.153, Texas Government Code; (iv) does not, nor will not, so long as the Agreement remains in effect, boycott energy companies, as such term is defined in Chapter 809, Texas Government Code; (v) does not, nor will not, so long as the Agreement remains in effect, have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association, as such term is defined in 2274.001(3), Texas Government Code; and (vi) is not (a) owned or controlled by (1) individuals who are citizens of China, Iran, North Korea, Russia or any designated country (as such term is defined in 117.003, Texas Business & Commerce Code); or (2) a company or other entity, including a governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of China, Iran, North Korea, Russia, of any designated country; or (b) headquartered in China, Iran, North Korea, Russia or a designated country.

b. Engineer certifies and agrees that it is not identified on a list prepared and maintained under Sections 806.051, 807.051 or 2252.153, Texas Government Code.

In accordance with Section 176.0065, Texas Local Government Code, a list of local government officers of FBCTRA may be obtained by contacting the FBCTRA's records administrator at (713) 374-3540.

24. Appendices

The Appendices attached to this Agreement, which consists of:

- | | |
|--------------|------------------------------------|
| Attachment A | Scope of Services |
| Attachment B | Compensation for Scope of Services |
| Attachment C | Insurance Requirements |

IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts

FORT BEND COUNTY TOLL ROAD
AUTHORITY, a local government
corporation

By: James D. Rice

Name: James D. Rice

Title: Chairman

ENGINEER

Cobb Fendley & Associates, Inc.

By: _____

Name: Floyd Scurry, PE

Title: Executive Vice President

EFFECTIVE DATE

THIS AGREEMENT IS EFFECTIOVE ON THE DATE IT IS APPROVED BY THE FORT BEND COUNTY COMMISSIONERS COURT, AND IF NOT SO APPROVED SHALL BE NULL AND VOID

DATE OF COMMISSIONERS COURT APPROVAL: _____

AGENDA ITEM NO.: _____

ATTACHMENT A
SCOPE OF SERVICES
(PLANS, SPECIFICATIONS AND ESTIMATE)
SERVICES TO BE PROVIDED BY THE ENGINEER

The Engineer shall provide engineering services required for the preparation of plans, specifications, and estimates (PS&E) and related documents, for constructing the Fort Bend Parkway Toll Road Segment D, from STA 1500+00 to STA 2041+00 (West Of SH 36 to East of FM 762). These engineering services include, but are not limited to, project management and coordination with all team member consultants to provide a complete PS&E. The Engineer will assist in Utility Coordination.

GENERAL REQUIREMENTS

1.2 Right-of-Entry and Coordination. The Engineer shall notify the FBCTRA and secure permission to enter private property for any team member needing to perform any surveying, environmental, engineering or geotechnical activities needed off TxDOT right-of-way. The Engineer shall not commit acts which would result in damages to private property, and the Engineer shall make every effort to comply with the wishes and address the concerns of affected private property owners. The Engineer or representative team member shall contact each property owner prior to any entry onto the owner's property and shall request concurrence from the FBCTRA prior to each entry.

The Engineer shall notify the FBCTRA and coordinate with adjacent engineers on all controls at project interfaces. The Engineer shall document the coordination effort, and each engineer shall provide written concurrence regarding the agreed project controls and interfaces. In the event the Engineer and the other adjacent engineers are unable to agree, the Engineer and each adjacent engineer shall meet jointly with the FBCTRA for resolution. The FBCTRA will have authority over the Engineer's disagreements and the FBCTRA's decision will be final.

The Engineer or team member firm shall prepare each exhibit necessary for approval by each railroad, utility, and other governmental or regulatory agency in compliance with the applicable format and guidelines required by each entity and as approved by the FBCTRA. The Engineer shall notify the FBCTRA in writing prior to beginning any work on any outside agency's exhibit.

1.3 Progress Reporting and Invoicing. The Engineer shall invoice according to Function Code breakdowns shown in the Contract for Engineering Services. The Engineer shall submit each invoice in a format acceptable to the FBCTRA.

The Engineer shall submit a monthly written progress report to the FBCTRA's Project Manager regardless of whether the Engineer is invoicing for that month. The Engineer's written progress report shall describe activities during the reporting period; activities planned for the following period; problems encountered and actions taken to remedy them; list of meetings attended; and overall status, including a per cent complete by task.

The Engineer shall prepare a design time schedule and an estimated construction contract time schedule, using any FBCTRA approved programs. The schedules shall indicate tasks, subtasks, critical dates, milestones, deliverables and review requirements in a format that depicts the interdependence of the various items. The Engineer shall provide assistance to FBCTRA personnel in interpreting the schedules. The

Engineer shall schedule milestone submittals at 30%, 60%, 90% and final project completion phases. The Engineer shall advise the FBCTRA in writing if the Engineer is not able to meet the scheduled milestone review date.

Once the project goes to letting, all electronic files shall be delivered within 30 days of written request.

Final payment is contingent upon the FBCTRA's receipt and confirmation by the FBCTRA's Project Manager that the electronic files run and are formatted in accordance with FBCTRA requirements and all review comments are addressed.

The Engineer shall prepare a letter of transmittal to accompany each document submittal to the FBCTRA. At a minimum, the letter of transmittal must include the FBCTRA project number, the highway number, County, and project limits.

1.4 Traffic Control. The Engineer shall provide all planning, labor, and equipment to develop and to execute each Traffic Control Plan (TCP) needed by the Engineer to perform required services under each Work Authorization. The Engineer shall comply with the requirements of the most recent edition of the TMUTCD. The Engineer shall submit a copy of each TCP to the FBCTRA for approval prior commencing any work on any FBCTRA, TxDOT or County roadway. The Engineer shall provide all signs, flags, and safety equipment needed to execute the approved TCP. The Engineer shall notify the FBCTRA in writing twenty-four (24) hours in advance of executing each TCP requiring a lane closure and shall have received written concurrence from the FBCTRA or appropriate agency prior to beginning the lane closure. The Engineer's field crew shall always possess a copy of the approved TCP on the job site and shall make the TCP available to the FBCTRA or other agency personnel for inspection upon request. The Engineer shall assign charges for any required traffic control to the applicable function code.

1.7. Level of Effort. For each work authorization, the Engineer shall base the level of effort for the agreed project scope based on the level of effort spreadsheet. at each phase on the prior work developed in earlier phases without unnecessary repetition or re-study. As directed by the FBCTRA, the Engineer shall provide written justification regarding whether or not additional or repeated level of effort of earlier completed work is warranted, or if additional detail will be better addressed at a later stage in the project development.

1.8. Quality Assurance (QA) and Quality Control (QC). The Engineer shall provide peer review at all levels. For each deliverable, the Engineer shall have some evidence of their internal review and mark-up of that deliverable as preparation for submittal. A milestone submittal is not considered complete unless the required milestone documents and associated internal red-line mark-ups are submitted. The FBCTRA's Project Manager may require the Engineer to submit the Engineer's internal mark-up (red lines) or comments developed as part the Engineer's quality control step. When internal mark-ups are requested by the FBCTRA in advance, the FBCTRA, at its sole discretion, may reject the actual deliverable should the Engineer fail to provide the evidence of quality control. The Engineer shall clearly label each document submitted for quality assurance as an internal mark-up document.

The Engineer shall perform QA and QC on all survey procedures, field surveys, data, and products prior to delivery to the FBCTRA. If, at any time, during the course of reviewing a survey submittal it becomes apparent to the FBCTRA that the submittal contains errors, omissions, or inconsistencies, the FBCTRA may cease its review and immediately return the submittal to the Engineer for appropriate action by the Engineer.

A submittal returned to the Engineer for this reason is not a submittal for purposes of the submission schedule.

1.11. Organization of Design Project Folder and Files (Electronic Project Files). The Engineer shall organize the electronic project files in accordance with the FBCTRA's format requirements.

1.12. Personal Protective Equipment (PPE). The Engineer shall, and shall require its subcontractors to, (1) provide personal protective equipment (PPE) to their personnel, (2) provide business vehicles for their personnel, and (3) require their personnel to use PPE and drive only business vehicles while performing work on or near roadways. The PPE must meet all (1) current standards set by the Occupational Safety and Health Administration (OSHA) and (2) TxDOT requirements (e.g., safety glasses, Type 3 (TY 3) pants for night work). Each business vehicle must be clearly marked with the Engineer's business name, or the name of the appropriate subcontractor, such that the name can be identified from a distance.

1.13 Training Requirements OMITTED

1.14. Data Classification. Unless otherwise clearly labeled or otherwise specifically excepted through a provision of this contract or its attachments, all data provided to or generated by the Engineer under this contract is considered public data.

TASK DESCRIPTIONS AND FUNCTION CODES

The Engineer shall categorize each task performed to correspond with the Function Codes (FC) and Task Descriptions.

FUNCTION CODE 145(145, 164) – MANAGING CONTRACTED/DONATED PE

PROJECT MANAGEMENT AND ADMINISTRATION

The Engineer, in association with the FBCTRA's Project Manager shall be responsible for directing and coordinating all activities associated with the project to comply with FBCTRA policies and procedures, and to deliver that work on time.

Project Management and Coordination. The Engineer shall coordinate all subconsultant activity to include quality of and consistency of plans and administration of the invoices and monthly progress reports. The Engineer shall coordinate with necessary local entities.

The Engineer shall:

- Prepare monthly written progress report.
- Develop and maintain a detailed project schedule to track project conformance.
- Meet on a scheduled basis with the FBCTRA to review project progress.
- Prepare, distribute, and file both written and electronic correspondence.
- Prepare and distribute meeting minutes.
- Document phone calls and conference calls as required during the project to coordinate the work for various team members.

FUNCTION CODE 160(163) - ROADWAY DESIGN

MISCELLANEOUS (ROADWAY)

The Engineer shall provide the following services:

163.14. Constructability Review. The Engineer shall provide Independent Quality Review of the constructability PS&E sets.

The Engineer shall perform constructability reviews at major project design milestones (e.g. 60%, 90%, and final plan) to identify potential constructability issues and options that would provide substantial time savings during construction. The constructability review must be performed for all roadway and structural elements such as Sequence of Work/Traffic Control, Drainage (Temporary and Permanent), Storm Water Pollution Prevention Plan (SWP3), Environmental Permits, Issues and Commitments (EPIC) addressed, identify Utility conflicts; ensuring accuracy and appropriate use of Items, Quantities, General Notes, Standard and Special Specifications, Special Provisions, Contract Time/Schedule, Standards; and providing detailed comments in an approved format. Reviews must be captured in a Constructability Log identifying areas of concern and potential conflict. The Engineer shall provide the results of all Constructability reviews and recommendations at major project design milestone submittals.

163.15. Utility Adjustment Coordination. Utility Adjustment Coordination must include utility coordination meetings with individual utility companies, communication and coordination with utilities.

The Engineer shall provide Utility Adjustment Coordination as described below:

- Coordination with FBCTRA, PS&E design team, anticipated utility owners, and project stakeholders as required to develop a Utility Conflict Matrix (UCM)

1. UTILITY COORDINATION

The Engineer shall perform utility coordination and liaison activities with involved utility owners, their consultants, and FBCTRA to achieve project notifications, concurrence letters (Letter of No Objection (LONO)), formal coordination meetings, conflict analysis, and resolution.

- a. The Engineer shall coordinate all activities with FBCTRA or their designee, to facilitate the orderly progress and completion of design phase. The Engineer shall be responsible for the following:
 - i. **Work Plan.** Coordinate a work plan including a list of the proposed meetings and coordination activities, and related tasks to be performed, a schedule, and an estimate. The work plan must satisfy the requirements of the project and must be approved by FBCTRA prior to commencing work.
 - ii. **External Communications.** The Engineer shall coordinate all activities with FBCTRA and its consultants, or other contractors or representatives as authorized by FBCTRA. Also, The Engineer shall provide FBCTRA copies of diaries, correspondence, and other documentation of work related communications between The Engineer, utility owners, and other outside entities upon request of FBCTRA.

- iii. **Permits and rights of entry.** Obtain all necessary permits from city, county, municipality, railroad, or other jurisdiction to allow the Engineer to work within existing streets, roads, or private property for additional designating and subsurface utility locating
- iv. The Engineer shall use the **Notice of Required Accommodation (NORA)** forms if the utility is found to be in conflict with the project. The Engineer shall ensure all appropriate documentation is sent with these forms.
- b. As required, The Engineer shall coordinate with the local utility committees to present a footprint of FBCTRA's project with represented utility companies and owners for their markups of their locations. The Engineer shall also coordinate with any other utility committees which may include county, city, or other officials, if needed.
- c. **Initial Project Meeting.** Attend an initial meeting and an on-site inspection (when appropriate) to ensure familiarity with existing conditions and project requirements and prepare a written report of the meeting. The Engineer shall prepare the **Notice of Proposed Construction (NOPC)**. If requested by FBCTRA, the Engineer shall send the NOPC to the Utility Companies 14 to 30 days prior to the initial project meeting. The Engineer shall send NOPC form to stakeholders in the project limits to give notice of the upcoming construction project.
- d. The Engineer shall provide FBCTRA a **Utility Contact List** for each project with all information such as: (a) Owner's Name; (b) Contact Person; (c) Telephone Numbers; (d) Emergency Contact Number; (e) E-mail addresses; (f) as well as pertinent information concerning their respective affected utilities and facilities, including but not limited to: size, number of poles, material, and other information which readily identifies the utilities companies' facilities.
- e. The Engineer is responsible for updating the Utility Conflict Matrix (UCM) and utility conflict layout throughout the project and at each milestone and will provide updated UCM and utility conflict layout to FBCTRA at each milestone submittal (4).
- f. The Engineer must advise utility companies and owners of the general characteristics of the Project and provide an illustration of the project footprint for mark-up of the utility facility locations that occupy the project area by distributing the Subsurface Utility Engineering (SUE) plan sheets or project layout sheets.

2. UTILITY AGREEMENTS FOR UTILITY ADJUSTMENTS

The Engineer The Engineer must coordinate with utility owners on the identified conflicts with highway construction and ensure the Utility Accommodations Rules (UAR) are addressed. The Engineer must assist the utility companies in the preparation of required agreements associated with: cost estimates, plans, disposition of existing facilities, schedule, betterment, eligibility ratio, property interest, roadway designation, funding of adjustments, and the occupation of FBCTRA right of way.

- a. **Utility Agreement Assemblies:** A packaged agreement consisting of a Utility Joint Use Acknowledgement, Standard Utility Agreements, plans on 11x17 sheets, Statement of contract work form, Affidavit form and copy of recorded easement, schedule of work, Buy America compliance

Mill Test Reports (MTR's) or Certifications, and various attachments as detailed in the UAR and the TxDOT ROW Utilities Manual.

- i. **Utility Agreements:** If a utility is located within an easement, the utility company might have a compensable interest. The utility company must furnish a copy of their easement to The Engineer. The Engineer must determine whether or not a compensable interest exists and the owner's degree of eligibility. The Utility Coordinator must assist the utility company with adjustment plans and cost estimate for these adjustments. The Engineer and Utility Engineer must review plans to ensure compliance with UAR and ensure the proposal will not conflict with highway construction. The Engineer must submit a copy of the easement(s), plans, and estimate to FBCTRA via letter recommending approval. In preparing the estimate, The Engineer must include the reimbursing of all costs the utility incurs for in kind replacements within the utility's easement limit. If betterment is identified, two estimates (one for in kind replacement and one for betterment), created by the utility company, are required for The Engineer to calculate the betterment ratio according to the *TxDOT ROW Utilities Manual*.
 - ii. **Utility Acknowledgement:** For this project, all non-reimbursable utility adjustments must be submitted with the Form 1082 Utility Installation Request (UIR) or must be submitted using the current program used by the FBCTRA. The term "permit" refers to "Form 1082". The Engineer must furnish the appropriate form to the utility company. The utility company should submit Form 1082 and adjustment plans to The Engineer and Utility Engineer for review. The Engineer and Utility Engineer must review plans with the FBCTRA Project Manager (FBCTRA PM) to ensure compliance with UAR and ensure the proposal will not conflict with highway construction. The Engineer must submit Form 1082 to the FBCTRA by letter recommending approval.
 - iii. **Escrow Agreements:** If it is determined that the utility will be adjusted as part of the highway contract, the FBCTRA's project manager must be notified immediately. The Engineer must determine what funding amount is required based upon the applicable betterment or eligibility ratio. The Engineer must immediately notify FBCTRA of the need for an AFA and the amounts required for the AFA by The Engineer. The Engineer shall coordinate the development of the required AFA with the utility owner and the FBCTRA in accordance with the established procedures of the FBCTRA's Contracts Services Division. The Engineer shall procure or verify all AFA payments have been submitted to the FBCTRA.
- b. The Engineer must electronically submit the executed Utility Agreement assemblies, which include the appropriate forms as detailed in the UAR and supplied by the FBCTRA, a copy of the recorded easement deed, plans, and estimate to the FBCTRA along with a cover letter recommending approval. The utility must be reimbursed eligible costs incurred within their easement limits for replacement in kind. The transmittal letter must also include a description of the work being done as well as the estimated cost and schedule of work.
 - c. The Engineer must determine which utilities will be installed by agreement between the utility and FBCTRA. The Engineer must process all Joint Use Agreement Acknowledgement (ROW-U-JUA)

and utility agreements, determine necessity of any escrow agreements, and forward these documents to the FBCTRA for final approval.

- d. The Engineer is responsible for the timely coordination, review, and submittal of all documentation to be included in all the utility agreements with such documents conforming to the requirements of 23 C.F.R. Section 645A. The Engineer shall assist in the preparation, compilation, gathering, and collection of all required and supporting documents to be included with the utility agreements.
- e. For each utility, the records for all utility owners' costs must be in accordance with the requirements of 23 C.F.R. Section 645A, in a format that is compatible with the estimate attached to the utility agreement and with sufficient detail for analysis. The totals for labor, overhead, construction costs, travel, transportation, equipment, materials, supplies, and other services must be shown in such a manner as to permit comparison with the approved estimate.
- f. The Engineer shall maintain a complete set of records for all utility adjustment costs for each utility for a period of time sufficient to complete all final payments to the utility companies or owners.

DELIVERABLES:

The Engineer shall provide the following:

- Work Plan
- NOPC Letters
- NORA Letters
- Utility Contact List
- Meeting Minutes (PDF electronic format)
- Eligibility ratios and betterment ratios calculated.
- Utility Agreement Assemblies completed (reviewed).
- AFA completed (Escrow – Reviewed) with payments verified.
- Letters recommending approval of Reviewed Utility Installation Requests (UIR) (Form 1082).
- Ensure compliance with UAR and Buy America.

163.16. Utility Engineering.

Utility Engineering includes the identification of utility conflicts, coordination, compliance with the UAR, and resolution of utility conflicts. The Engineer shall coordinate all activities with FBCTRA, or FBCTRA's designee, to facilitate the orderly progress and completion of FBCTRA's design phase.

The Engineer shall provide Utility Engineering as described below:

- Engineering/Coordination with FBCTRA, PS&E design team, anticipated utility owners, and project stakeholders as required to develop a Utility Conflict Matrix (UCM)
- Up to 4 iterations of the UCM based on 30%, 60%, 90%, and 100% design

1. COORDINATION OF ENGINEERING ACTIVITIES

- a. Utility Layout: The Engineer shall maintain a utility layout in the latest version of MicroStation used by FBCTRA. This layout must include all existing utilities which are to remain in place or be abandoned, and all adjusted utilities. This layout must be utilized to monitor the necessity and

evaluate alternatives. The Utility Engineer shall utilize the layout of existing utilities as prepared, if available, and make a determination of the following:

- i. Facilities in conflict with the proposed project that are to be relocated.
- ii. Facilities to be abandoned in place.
- iii. Facilities to remain in service and in place as a result of roadway design adjustments.
- iv. The Utility Engineer shall be responsible for determining if there are additional facilities not shown in the Subsurface Utility Engineering (SUE) documents, which require relocation. The Engineer shall coordinate this information with FBCTRA immediately upon discovery.

2. PUBLIC & INDIVIDUAL MEETINGS WITH UTILITY COMPANIES

As required, to facilitate utility conflict identification and resolution, the Engineer shall:

- a. Establish contact with all existing utilities within and adjacent to the project limits and set up monthly utility coordination meetings to discuss concepts and options for construction.
- b. Schedule all utility coordination meetings and ensure compatibility with the schedule of FBCTRA.
- c. Set agenda for all coordination meetings as directed by FBCTRA.
- d. Establish and promote the desired agenda and methodologies for utility construction within the project limits. The agenda and methodologies will consist primarily of promoting the construction of utilities as a part of the Highway Contract.
- e. Work Plan: Develop a work plan including a list of the tasks to be performed, a schedule, and an estimate. The work plan must satisfy the requirements of the project and must be approved by FBCTRA prior to commencing work.
- f. Progress Meetings. The Engineer shall implement a schedule of milestone (4) meetings and monthly meetings (up to 24 meetings) with all utility companies (17) and owner or owner's representatives for coordination purposes. Such meetings must commence as early as possible in the design process and shall continue until completion of the project. The Engineer shall notify FBCTRA at least two business days in advance of each meeting to allow FBCTRA the opportunity to participate in the meeting. The Engineer shall provide and produce meeting minutes of all meetings with said utility companies, owners, or owners' representatives within seven business days.

3. REVIEW OF UTILITY'S PROPOSED ADJUSTMENTS FOR PROJECT CONFLICTS

- a. Evaluate Alternatives: The Utility Engineer shall evaluate alternatives in the adjustment of utilities balancing the needs of both FBCTRA and the Utility.
- b. Review Estimates and Schedules: The Utility Engineer shall review the Utility Adjustment Estimates for reasonableness of cost and the timely scheduling of the adjustment.
- c. Review Plans for compliance with Utility Accommodation Rules and proposed location data. The responsibility for quality and accuracy of Utility Adjustment Plans will remain with the Utility Company.

4. PERMIT REVIEW FOR NEW INSTALLATIONS

- a. The Utility Engineer shall review all UIR Permits received for new installations (not relocations caused by this project) during this project. UIR Permits must be reviewed for compliance with the Utility Accommodation Rules and ensure the proposal will not conflict with the proposed highway improvements and construction.

5. The Engineer shall not provide services for the sole benefit of third parties.

6. The Engineer shall prepare a Proposed Utility Layout in the latest version of Micro Station used by FBCTRA that can be overlaid on the base file with drainage. The Engineer shall:

- a. Ensure all facilities conflicts have been resolved.
- b. Ensure all stakeholders have concurred with the various alignments.
- c. Establish the sequence of construction for all utility relocation work whether it is included as a part of the Highway Construction or not.
- d. Determine which utilities will be built as part of the contract.
- e. Determine which facilities will be relocated prior to construction.

7. UTILITY VERIFICATION AND INSPECTION

- a. Not included in this work authorization. If requested, a supplemental will be executed.

8. PROPOSED UTILITY ADJUSTMENTS LAYOUTS

- a. Not included in this work authorization. If requested, a supplemental will be executed.

DELIVERABLES:

The Engineer shall provide the following:

- Utility Conflict Matrix – One updated file for each milestone submittal (4)
- Utility Conflict Layouts - One updated file for each milestone submittal (4) for each of the 17 utility owners
- Meeting Minutes (PDF electronic format)

163.17. Utility Engineering Investigation (currently Subsurface Utility Engineering)

Utility Engineering Investigation (currently Subsurface Utility Engineering) includes utility investigations subsurface and above ground prepared in accordance with AASHTO standards [ASCE C-1 38-22 (<http://www.fhwa.dot.gov/programadmin/asce.cfm>)] and Utility Quality Levels.

The Engineer shall provide additional SUE Quality Levels as described below and incorporate with prior SUE data collected:

- SUE Quality Level B investigation for all utilities
- SUE Quality Level A investigation up to thirteen 13 test holes

1. UTILITY QUALITY LEVELS

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

- Quality Level D - Existing Records: Utilities are plotted from review of available existing records.
- Quality Level C - Surface Visible Feature Survey: Quality level "D" information from existing records is correlated with surveyed surface-visible features. Includes Quality Level D information. If there are variances in the designated work area of Level D, a new schematic or plan layout will be necessary to identify the limits of the proposed project and the limits of the work area required for this work authorization; including highway stations, limits within existing or proposed right of way, additional areas outside the proposed right of way, and distances or areas to be included along existing intersecting roadways.
- Quality Level B - Designate: Two-dimensional horizontal mapping. This information is obtained through the application and interpretation of appropriate non-destructive surface geophysical methods. Utility indications are referenced to established survey control. Incorporates quality levels C and D information to produce Quality Level B. If there are variances in the designated work area of Level D, a new schematic or plan layout will be necessary to identify the limits of the proposed project and the limits of the work area required for this work authorization; including highway stations, limits within existing or proposed right of way, additional areas outside the proposed right of way, and distances or areas to be included along existing intersecting roadways.
- Quality Level A - Locate (Test Hole): Three-dimensional mapping and other characterization data. This information is obtained through exposing utility facilities through test holes and measuring and recording (to appropriate survey control) utility and environment data. Incorporates quality levels B, C and D information to produce Quality Level A.

2. UTILITY INVESTIGATION (QUALITY LEVEL D)

The Engineer shall:

- a. Perform records research from all available resources. Sources include, but are not limited to: Texas811, Railroad Commission of Texas (Texas RRC), verbal recollection, as-built information from plans, plats, permits and any other applicable information provided by the utility owners or other stakeholders.
- b. Document utility owners and contact information.
- c. Create a utility drawing of information gathered.

3. UTILITY INVESTIGATION (QUALITY LEVEL C)

The Engineer shall:

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

e. Create composite utility drawing of information gathered.

4. DESIGNATE (QUALITY LEVEL B)

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

The Engineer shall:

- a. As requested by FBCTRA compile "As Built" information from plans, plats and other location data as provided by the utility owners.
- b. Coordinate with utility owner when utility owner's policy is to designate their own facilities at no cost for preliminary survey purposes. The Engineer shall examine utility owner's work to ensure accuracy and completeness.
- c. Designate, record, and mark the horizontal location of the existing utility facilities and their service laterals to the apparent existing rights of-way using non-destructive surface geophysical techniques. No storm sewer facilities are to be designated unless authorized by the FBCTRA. A non-water base paint, utilizing pink paint, must be used on all surface markings of underground utilities.
- d. Correlate utility owner records with designating data and resolve discrepancies using professional judgment. A color-coded composite utility facility plan with utility owner names, quality levels, line sizes, and subsurface utility locate (test-hole) locations, must be prepared and delivered to FBCTRA. It is understood by both the Engineer and FBCTRA that the line sizes of designated utility facilities detailed on the deliverable are from the best available records and that an actual line size is normally determined from a test hole vacuum excavation. A note must be placed on the designated deliverable only that states lines sizes are from best available records". All above ground appurtenance locations must be included in the deliverable to FBCTRA. This information must be provided in the latest version of MicroStation or Geopak used by FBCTRA. The electronic file will be delivered on CD or DVD, as required, by FBCTRA. A hard copy is required and must be signed, sealed, and dated by the Engineer. When requested by FBCTRA, the designated utility information must be overlaid on FBCTRA's design plans.
- e. Determine and inform FBCTRA of the approximate utility depths at critical locations as determined by FBCTRA. This depth indication is understood by both the Engineer and FBCTRA to be approximate only and is not intended to be used preparing the right of way and construction plans.
- f. Provide a monthly summary of work completed and in process with adequate detail to verify compliance with agreed work schedule.
- g. Close-out permits as required.
- h. Clearly identify all utilities that were discovered from quality levels C and D investigation but cannot be depicted in quality level B standards. These utilities must have a unique line style and symbology in the designated (Quality Level B) deliverable.
- i. Comply with all applicable FBCTRA policy and procedural manuals.

5. SUBSURFACE UTILITY LOCATE (TEST HOLE) SERVICE (QUALITY LEVEL A)

Locate means to obtain precise horizontal and vertical position, material type, condition, size and other data that may be obtainable about the utility facility and its surrounding environment through exposure by nondestructive excavation techniques that ensures the integrity of the utility facility. Subsurface Utility Locate (Test Hole) Services (Quality Level A) are inclusive of Quality Levels B, C, and D.

The Engineer shall:

- a. Review requested test hole locations and advise FBCTRA in the development of an appropriate locate (test hole) work plan relative to the existing utility infrastructure and proposed highway design elements.
- b. Coordinate with utility owner inspectors as may be required by law or utility owner policy.
- c. Neatly cut and remove existing pavement material, such that the cut does not to exceed 0.10 square meters (1.076 square feet), unless unusual circumstances exist.
- d. Measure and record the following data on an appropriately formatted test hole data sheet that has been sealed and dated by the Engineer:
 - i. Elevation of top and/or bottom of utility tied to the datum of the furnished plan.
 - ii. Identify a minimum of two benchmarks utilized. Elevations must be within an accuracy of 15mm (.591 inches) of utilized benchmarks.
 - iii. Elevation of existing grade over utility at test hole location.
 - iv. Horizontal location referenced to project coordinate datum.
 - v. Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.
 - vi. Utility facility material(s).
 - vii. Utility facility condition.
 - viii. Pavement thickness and type.
 - ix. Coating and Wrapping information, and condition.
 - x. Unusual circumstances or field conditions.
- e. Excavate test holes in such a manner as to prevent any damage to wrappings, coatings, cathodic protection, or other protective coverings and features.
- f. Be responsible for any damage to the utility during the locating process. In the event of damage, the Engineer shall stop work, notify the appropriate utility facility owner, FBCTRA, and appropriate regulatory agencies. The regulatory agencies include but are not limited to the Railroad Commission of Texas and the Texas Commission on Environmental Quality. The Engineer shall not resume work until the utility facility owner has determined the corrective action to be taken. The Engineer shall be liable for all costs involved in the repair or replacement of the utility facility.
- g. Back fill all excavations with appropriate material, compact backfill by mechanical means, and restore pavement and surface material. The Engineer shall be responsible for the integrity of the

backfill and surface restoration for a period of three years. Install a marker ribbon throughout the backfill.

- h. Furnish and install a permanent above ground marker directly above the center line of the utility facility.
- i. Provide complete restoration of work site and landscape to equal or better condition than before excavation. If a work site and landscape is not appropriately restored, the Engineer shall return to correct the condition at no extra charge to the FBCTRA.
- j. Plot utility location position information to scale and provide a comprehensive utility plan sign and sealed by the responsible Engineer. This information shall be provided in the latest version of Micro Station or Geopak format used by the FBCTRA. The electronic file will be delivered on CD or DVD. When requested by FBCTRA, the Locate information must be overlaid on FBCTRA's design plans.
- k. Return plans, profiles, and test hole data sheets to FBCTRA. If requested, conduct a review of the findings with FBCTRA.
- l. Close-out permits as required.

WORK TO BE PERFORMED:

Perform an estimated 3,500 Linear Feet of QL B on five identified pipelines.

Perform an estimated 13 QL A test holes at various depths to be determined in the field.

DELIVERABLES:

The Engineer shall provide the following:

- One set of Electronic Files (MicroStation and PDF) on USB and/or Dropbox service of Quality Level A and B (including QL-C and QL-D) SUE in MicroStation format as requested by FBCTRA
- Two sets of signed and sealed Subsurface Utility Locate (Quality Level A) Test Hole data sheets on 11" x 17" size sheets, (as needed upon request from FBCTRA). Provide digital PDF version as well
- A monthly summary, or at intervals as requested by FBCTRA, with updates of work completed and in process with adequate detail to verify compliance with agreed work schedule
- KMZ of the Quality Level A and B (inclusive of QL-C and QL-D) SUE

ATTACHMENT A SCHEDULE FBCTRA SEG D

Utility Schedule Draft

ID	Task Mode	Task Name	Task Description	Duration	Start	Finish	September	October	November	December	January	February	March	April	May	June	July	August	September	October
1	★	WA 1 Execution Date		0 mons	Wed 10/1/25	Wed 10/1/25														
2	★	FC 145(145) Managing Contracted/Donated PE		26.1 mons	Wed 10/1/25	Thu 9/30/27														
3	★	Project Management and Administration		26.1 mons	Wed 10/1/25	Thu 9/30/27														
4	★	FC 160(163) - Roadway Design		26.1 mons	Wed 10/1/25	Thu 9/30/27														
5	★	Constructability Review		26.1 mons	Wed 10/1/25	Thu 9/30/27														
6	★	Utility Adjustment Coordination		26.1 mons	Wed 10/1/25	Thu 9/30/27														
7	★	NOPC Letters		4.4 mons	Wed 10/1/25	Fri 11/30/26														
8	★	NORA Letters		7.55 mons	Mon 2/2/26	Mon 8/31/26														
9	★	Utility Agreements		14.15 mons	Tue 9/1/26	Thu 9/30/27														
10	★	Utility Engineering		26.1 mons	Wed 10/1/25	Thu 9/30/27														
11	★	Coordination of Engineering Activities		26.1 mons	Wed 10/1/25	Thu 9/30/27														
12	★	Utility Conflict Matrix - 30%, 60%, 90%, and 100% Submittals		17.3 mons	Mon 2/2/26	Mon 5/31/27														
13	★	Utility Conflict Layouts		17.3 mons	Mon 2/2/26	Mon 5/31/27														
14	★	Fort Bend County Permit Review for New Installations		26.1 mons	Wed 10/1/25	Thu 9/30/27														
15	★	Public & Individual Meetings with Utility Companies		26.1 mons	Wed 10/1/25	Thu 9/30/27														
16	★	Review of Utility's Proposed Adjustment for Project Conflicts		14.15 mons	Tue 9/1/26	Thu 9/30/27														
17	★	Utility Engineering Investigation		26.1 mons	Wed 10/1/25	Thu 9/30/27														
18	★	Permit & ROE		21.7 mons	Wed 10/1/25	Mon 5/31/27														
19	★	Create Utility Contact List		4.4 mons	Wed 10/1/25	Fri 11/30/26														
20	★	Identify Utility Owners along Proj. Corridor, Secure As-Built Information		4.4 mons	Wed 10/1/25	Fri 11/30/26														
21	★	Coordination with Utility Owner Field Representatives		4.4 mons	Wed 10/1/25	Fri 11/30/26														
22	★	Create Existing Utility Base Map		5.4 mons	Wed 10/1/25	Fri 12/27/26														
23	★	Existing Utility Layouts - PS&E 30%, 60%, 90%, 100% Submittals		17.3 mons	Mon 2/2/26	Mon 5/31/27														
24	★																			
25	★	Work Authorization No. 1 Termination Date = 09/30/2027		0 mons	Thu 9/30/27	Thu 9/30/27														

9/30

Project: FBCTRA SEGMENT D
Date: Thu 8/7/25

Task Split Milestone

Summary Project Summary Inactive Task

Inactive Milestone Inactive Summary Manual Task

Duration-only Manual Summary Rollup Manual Summary

Start-only Finish-only External Tasks

External Milestone Deadline Progress

Manual Progress

Page 1

UTILITY	TECH	& COSTS
24		24
12		36
24		24
12		36
12		12
84	0	132
\$326.00	\$261.00	\$117.00
\$27,384.00	\$0.00	\$0.00
63.64%	0.00%	0.00%
		\$36,984.00

TASK DESCRIPTION	PROJECT MANAGER UTILITY	SENIOR ENGINEER	PROJECT ENGINEER	SENIOR ENGINEER TECH	ENGINEER TECH	TOTAL LABOR HRS. & COSTS	NO OF DWGS
N - FC 160 (163) (ROADWAY)							
Utility Review	72					72	
Review of the constructability PS&E sets - Identify Utility conflicts							
Investment Coordination							
Meetings		9	26			35	
Meetings		17	34			51	
Meetings	10	170	425			605	
Meetings							
Meetings							
Meetings		1	1			2	
Meetings	2	80	240			322	
Meetings	5	272	544	50	36	907	
Meetings	2	75	150			227	
Meetings	5	48	96			149	
Meetings	2	51	102			155	
Meetings							
Meetings	8		20			28	
Meetings	4		8			12	
Meetings	8		40			48	
Meetings	8		12	16		36	
Meetings	20		40	80		140	
Meetings	50		100	160		310	
TOTALS	196	723	1838	306	36	3099	
PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$326.00	\$261.00	\$200.00	\$154.00	\$117.00		
OF STAFFING	\$63,896.00	\$188,703.00	\$367,600.00	\$47,124.00	\$4,212.00	\$671,535.00	
60 (163)	6.32%	23.33%	59.31%	9.87%	1.16%	\$671,535.00	

DESCRIPTION	PROJECT MANAGER UTILITY	SENIOR ENGINEER	PROJECT ENGINEER	SENIOR ENGINEER TECH	ENGINEER TECH	TOTAL LABOR HRS. & COSTS
RACED/DONATED PE - FC 145 (164)						
	84	0	48	0	0	132
N - FC 160 (163)	196	723	1838	306	36	3099
EXPENSES	280	723	1886	306	36	3231
	9%	22%	58%	9%	1%	

TOTALS	
TOTAL SPECIFIED RATE COSTS	\$708,519.00
UTILITY OPTION 1 UNIT COSTS \$	36,398.00
NON-SALARY (OTHER DIRECT EXPENSES) \$	190,064.00
GRAND TOTAL	\$934,981.00

Services To Be Provided	Unit	Quantity	Cost	Total
Mobilization/Demobilization	mile	480	\$ 6.60	\$ 3,168.00
Level B (Designation). Includes labor and equipment for records research, designating, engineering, surveying, and CADD.	LF	3500	\$ 2.10	\$ 7,350.00
Level A (Location, Test Holes). Includes labor and equipment for vacuum excavation, engineering, surveying, and CADD.				
0 to 5 ft.	each	5	\$ 1,525.00	\$ 7,625.00
> 5 to 8 ft.	each	4	\$ 1,700.00	\$ 6,800.00
> 8 to 13 ft.	each	2	\$ 2,400.00	\$ 4,800.00
> 13 to 20 ft.	each	2	\$ 3,200.00	\$ 6,400.00
> 20 ft.	per vertical foot	1	\$ 255.00	\$ 255.00
SUBTOTAL UNIT COSTS				\$ 36,398.00

ODE Description	Unit	Quantity	Cost	Total
Mileage	mile	320	\$ 0.70	\$ 224.00
Traffic Control Services, Arrow Boards and Attenuator trucks - (Includes labor, equipment and fuel)	day	1	\$ 5,150.00	\$ 5,150.00
Attenuator trucks - (Lane/Shoulder Closure) (Includes labor, equipment and fuel)	day	1	\$ 1,600.00	\$ 1,600.00
Attenuator trucks - (No Lane Closure) (Includes labor, equipment and fuel)	day	1	\$ 1,000.00	\$ 1,000.00
Flashing Arrow Board	day	1	\$ 600.00	\$ 600.00
Law Enforcement/Uniform Officer (including vehicle)	hour	10	\$ 150.00	\$ 1,500.00
Matting (assume 225 mats plus freight charges)	day	14	\$ 2,500.00	\$ 35,000.00
Matting Handling (receive delivery, place, move, load for return)	Loads	54	\$ 2,685.00	\$ 144,990.00
SUBTOTAL ODE COSTS				\$ 190,064.00

ATTACHMENT C

The Engineer shall furnish certificates of insurance to the FBCTRA evidencing compliance with the insurance requirements hereof. Certificates shall indicate name of the Engineer, name of insurance company, policy number, term of coverage and limits of coverage. The Engineer shall cause its insurance companies to provide the FBCTRA with at least 30 days prior written notice of any cancellation or non-renewal of the insurance coverage required under this Agreement. The Engineer shall obtain such insurance from such companies having a Bests rating of B+/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 insurance in accordance with the laws of the State of Texas, or state of hire/location of Services, and Employers' Liability coverage with a limit of not less than \$1,000,000 each employee for Occupational Disease, \$1,000,000 policy limit for Occupational Disease; and Employer's Liability of \$1,000,000 each accident.
- b. Commercial General Liability insurance including coverage for Products/Completed Operations, Blanket Contractual, Broad Form Property Damage, Personal Injury/Advertising Liability, and Bodily Injury and Property Damage with limits of not less than:
 - \$2,000,000 general aggregate limit
 - \$1,000,000 each occurrence, combined single limit
 - \$2,000,000 aggregate Products, combined single limit
 - \$1,000,000 aggregate Personal Injury/Advertising Liability
 - \$50,000 Fire Legal Liability
 - \$5,000 Premises Medical
- c. Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
- d. Umbrella Excess Liability insurance written as excess of Employer's Liability, with limits not less than \$2,000,000 each occurrence combined single limit.
- e. Professional Liability insurance with limits not less than \$2,000,000 each claim/annual aggregate.

The FBCTRA and the FBCTRA's Directors shall be named as additional insureds to all coverages required above, except for those requirements in paragraphs "a" and "e." All policies written on behalf of the Engineer shall contain a waiver of subrogation in favor of the FBCTRA and the FBCTRA's Directors, with the exception of insurance required under paragraph "e."

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

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

**OFFICE USE ONLY
CERTIFICATION OF FILING**

Certificate Number:
2025-1357891

Date Filed:
09/02/2025

Date Acknowledged:
10/14/2025

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Cobb, Fendley & Associates, Inc.
Houston, TX United States

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

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
Contract ID: FBCTRA Segment D
Subsurface Utility Engineering

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Silver, Monica	Houston, TX United States	X	
	Warth, Dan	Austin, TX United States	X	
	Eastland, Charles	Houston, TX United States	X	
	Scurry, Floyd	Houston, TX United States	X	
	Ram, Vineeta	Houston, TX United States	X	

5 Check only if there is NO Interested Party.

6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

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

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

Executed in _____ County, State of _____, on the _____ day of _____, 20____.
(month) (year)

Signature of authorized agent of contracting business entity
(Declarant)