

## ENGINEERING SERVICES AGREEMENT

THE STATE OF TEXAS   §  
                                     §  
COUNTY OF HARRIS   §

**THIS AGREEMENT** is between **Harris County**, a body corporate and politic under the laws of the State of Texas, hereinafter called "County", acting herein for the **Harris County Toll Road Authority (HCTRA)**, a division of the County, and **Quiddity Engineering, LLC**, hereinafter called the "Engineer" or "Company".

### W I T N E S S E T H:

**WHEREAS**, the County proposes to hire the Engineer for construction engineering inspection services for Heavy Highway, Bridge and Drainage maintenance projects, hereinafter called the "Project";

**WHEREAS**, the Engineer has represented to the County that it is qualified and prepared to perform all of the services described in the Scope of Services, Appendix A, attached hereto and incorporated herein by reference as if copied herein verbatim (Scope of Services), and has submitted a proposal to provide professional engineering services for the Project;

**WHEREAS**, the County is satisfied that the Engineer is capable of performing the necessary services required for the Project and desires to contract with the Engineer to perform the services described in the Scope of Services;

**WHEREAS**, the provisions of Chapter 262, Texas Local Government Code, Competitive Bidding Law do not apply to the proposed agreement because the contract is for professional engineering services;

**WHEREAS**, the County has determined and found that it would be in the best interest of the County to delegate to the Executive Director of HCTRA supervisory and management authority over the Engineer; and

**WHEREAS**, the Engineer will control the methods and means in performing the work set out in the Scope of Services.

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

#### 1. General

- a. In performing professional engineering services under this Agreement, the Engineer will function solely and exclusively for the benefit of the County and not for the benefit of the contractors for the Project or any other party. All services rendered by the Engineer under this Agreement shall be performed under the supervision of HCTRA. The Engineer shall render services in

accordance with generally accepted professional standards and use the degree of care and skill reasonably necessary to ensure compliance with all applicable laws and regulations.

- b. The Engineer shall be responsible for the professional quality, technical accuracy and the coordination of all deliverable documents and services furnished by the Engineer under this Agreement. The Engineer shall, without additional compensation, correct or revise all errors and deficiencies in its documents.
- c. The Engineer will collaborate with the County's personnel to facilitate the implementation of a Project Database within the County's Electronic Document Management System known as "MANAGE-IT". The Electronic Document Management System will provide electronic management that shall govern the distribution and file copies of all Project related correspondence, request for information (RFIs), change orders, pay estimates, reports, plans and technical data. The County and the Engineer will use "MANAGE-IT" to facilitate the effective electronic exchange of Project information and documents with members of the design team and other interested stakeholders.
- d. The Engineer will collaborate with the County's personnel to facilitate the maintenance of the Project Database. Project files shall be entered into the database by the Engineer on a timely basis and made available by the County on "MANAGE-IT" at all times for performance of daily Project activities. Other documents, including those used for legal review, audit requests/requirements, and open records request purposes, shall be entered by the County staff assisting the Engineer team. The Engineer shall also ensure that all Project files are appropriately entered into the database:
  1. At all critical milestones;
  2. At established periodic intervals; and
  3. Following completion of the work as a final Project record, including applicable record drawings.

## 2. Scope of Services

The services to be provided herein in regard to the Project are defined in Appendix A ("Scope of Services").

## 3. Compensation and Payment

- a. The Engineer shall be entitled to payment based on hourly rates and reimbursement as set forth in this section, and the Engineer agrees that such payment will constitute full compensation for the performance of services under this Agreement. The County shall not be obligated to pay in excess of **\$1,300,000.00** and the Engineer shall not be obligated to perform further

services hereunder once such sum has been earned, except to the extent that HCTRA has given prior written authorization to perform additional services and receive compensation therefore from funds in excess of such figure and within the maximum sum available under 3.c.

- (1) All hourly billing for defined services and any additional services not included in the Scope of Services under this Agreement, 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 County, and will be reimbursed at the raw salary rates in effect at that time, times a multiplier as set forth below, to the extent that such direct salary costs and subcontracts are reasonable and necessary for the performance of such services. The reimbursable hourly raw salary rates cannot exceed those set forth in Appendix B unless agreed to and signed by HCTRA. Payment will be made on the basis of certified time and expense records and in accordance with those payment procedures set forth in subparagraph b., below. Billing rates for less than or equal to 40 hours in a pay cycle, will have a multiplier on raw salary rates of 3.0 for Home Office Personnel and 2.70 for Field Personnel. Overtime for Field Personnel is applicable for any hours worked over 40 hours per week performed on a HCTRA Project by any one individual. Hours exceeding 40 hours in a pay cycle shall be billed at the raw hourly rate(s) for each employee using the following multipliers in lieu of the 3.0 and 2.7 multipliers outlined above: 1.2 times for any Engineer/exempt classified position and 1.7 times for any Inspector/non-exempt classified position. The Engineer must seek written HCTRA approval prior to scheduling a worker for overtime. If the Contractor works a regular second night shift, then the Inspector assigned to work the second shift (between the hours of 8:00 pm and 5:00 am) will do so as normal working hours and will not receive overtime until they work over more than 40 hours per week. If the Engineer consistently requires overtime to support Project work, the Engineer may be required to add an additional Project member(s) at the contract rate(s) indicated in Appendix B attached. The Engineer also shall be entitled to expense reimbursement as set forth in Appendix B. Other expenses, if any, may be reimbursed hereunder only when HCTRA determines that incurring such expenses is not required as part of the original Scope of Services and provides written approval of such expense in advance of it being incurred.
- (2) Where subcontractors are employed by the Engineer to perform services specified in this Agreement, the Engineer will be reimbursed for subcontractors' salaries and hourly rates, on the same basis as described for the Engineer's own personnel in subparagraph a. (1), of this Paragraph. Reimbursement to the Engineer for non-salary costs incurred by subcontractors will be on the same basis as if the costs were incurred by the Engineer. The Engineer will be paid a subcontract administrative

fee equal to ten percent (10%) of all subcontractor invoiced amounts. Total contract amounts shall include subcontractor fees.

- b. It is understood and agreed that monthly payments will be made to the Engineer by the County based on the following procedures: On or about the fifteenth day of each month during the 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 County two (2) copies of invoices showing the amounts due for services performed during the previous month, set forth separately for work under this Agreement and for additional services (accompanied by supporting certified time and expense records of such charges in a form acceptable to the County Auditor). It is specifically understood that any requests for travel reimbursements shall comply with those procedures for travel reimbursement to County employees established by the Harris County Auditor. HCTRA shall review such invoices and approve them within ten (10) calendar days with such modifications as are consistent with this Agreement and forward same to the County Auditor. The County shall pay each such invoice as approved by the County Auditor within twenty (20) calendar days after the County Auditor's approval of same. Invoices are due and payable 30 days from receipt.
- c. It is expressly understood and agreed that the County has available the total maximum sum of **\$1,430,000.00** as hereinafter certified available for the purpose of satisfying the County's obligations under the terms and provisions of this Agreement. The County shall not be liable under any circumstances or any interpretations hereof for any costs under the Agreement except for those certified available for this Agreement by the Harris County Auditor, as evidenced by the issuance of a purchase order by the Harris County Purchasing Agent for the certified amount. Once the funds are expended for the purpose of satisfying the County's obligations under the terms and provisions of this Agreement, the County shall have no further obligations nor shall the Engineer be required to perform further services hereunder.

4. 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 and end **550** calendar days from that date and remain in full force and effect until Project completion.

The contract period in which work authorizations may be issued may not be longer than two years after the date of contract execution or contract amendment. The Engineer is responsible for notifying HCTRA thirty days prior to the end of the contract.

5. The County's Option to Terminate

- a. The County has the right to terminate this Agreement at its sole option at any time, with or without cause, by providing written notice of such intention to terminate and by stating in said notice the "Termination Date." Upon such termination, the County shall compensate the Engineer in accordance with Paragraph 3., above, for those services that were provided under this Agreement prior to its termination and that have not been previously invoiced to the County. The Engineer's final invoice for said services will be presented to and paid by the County in the same manner set forth in Paragraph 3. b., above.
- b. Termination of this Agreement and payment in settlement as described in subparagraph a. of this Paragraph shall extinguish all rights, duties, obligations, and liabilities of the County 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 law. No termination of this Agreement shall have the effect of terminating the Engineer's obligations under Sections 7 (Delays and Damages), 8 (Inspection of the Engineer's Books and Records), 13 (Appearance as Witness), or 16 (Indemnification).
- c. If the County shall terminate this Agreement as provided in this Paragraph, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to the Engineer.
- d. The County'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 County by virtue of this Agreement or otherwise. Failure of the County to exercise any of its 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 law.
- e. Copies of all completed and partially completed documents prepared under this Agreement shall be delivered to the County upon the Engineer's receipt of termination payment when and if this Agreement is terminated.

6. Source of Fee Payments

The County intends to pay for design and construction with the proceeds from the sale and issuance of bonds and a yearly revenue fund account. It is expressly acknowledged that all payments owing for Engineering services

performed under this Agreement shall be made solely from these sources of funds for financing design and construction of the Project. The County shall be under no liability under this Agreement to make payment to the Engineer from any other source. In addition, the County reserves the right, at its sole discretion, at any time prior to issuance by the County of the written notice to proceed as provided in Paragraph 4., above, to cancel this Agreement and in the event of such cancellation, the Engineer shall not be entitled to any payment, nor have any claim for compensation or damages resulting from such cancellation. In no event shall the liability of the County under this Agreement exceed the amount hereunder certified as available by the County Auditor.

7. Delays and Damages

Except as otherwise provided herein, the Engineer agrees that no other charges or claims for damage shall be made by it against the County for any delays or hindrances occurring during the progress of the Engineer in providing to the County the services specified in this Agreement.

8. Inspection of the Engineer's Books and Records

The Engineer will permit the County, or any duly authorized agent of HCTRA, to inspect and examine the pertinent books and records of the Engineer, but only for the purpose of verifying the direct salary costs, overtime work, and out-of-pocket expenses for additional services charged to the Project described in and contemplated by Paragraph 3. a., above.

9. Personnel, Equipment, and Material

- a. The Engineer represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for performance of the 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 HCTRA, to perform the services when and as required and without delays. It is understood that HCTRA will approve assignment and release of all key engineering personnel and that the Engineer shall submit written notification of all key engineering personnel changes monthly for HCTRA's approval prior to the implementation of such changes. Services described in this Agreement shall be performed under the direction of an engineer licensed to practice professional engineering in the State of Texas.
- b. All employees of the Engineer or subcontractors hired by the Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of the Engineer or subcontractor of the Engineer who, in the opinion of HCTRA, is incompetent or by his conduct becomes detrimental to the Project shall, upon request of HCTRA, immediately be removed from association with the Project.

- c. Except as otherwise specified in paragraph 10. below, the Engineer shall furnish all equipment, transportation, supplies, and materials required for its operations under this Agreement.

10. Items to be Furnished to the Engineer by HCTRA

The following items will be supplied to the Engineer by HCTRA:

- a. Digital copies of construction contract plans and specifications for the Project area.

11. Subletting

The Engineer shall not sublet, assign, or transfer all or any part of the services in this Agreement without the prior written approval of HCTRA. Responsibility to HCTRA for sublet work shall remain with the Engineer.

12. Conferences

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

13. Appearance as Witness

If requested by the County, or on its behalf, the Engineer shall prepare such engineering exhibits and plats as may be requested for all hearings and trials related to the Project and, further, it shall prepare for and appear at conferences and shall furnish competent expert engineering 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. Compensation for trial preparation and appearance by the Engineer in courts regarding litigation matters will be made in accordance with the provisions of Paragraph 3. a. (1), above.

14. Compliance with Laws

The Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and, to the extent that the Engineer has actual knowledge, the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, it is understood that the Engineer shall be responsible for complying with Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, the Engineer shall furnish the County with certification of compliance with said

laws, statutes, ordinances, rules, regulations, orders, and decrees specified above.

The Engineer shall strictly comply with Section 2251.022 Texas Government Code, and shall require that its subcontractors fully comply with Section 2251.023 Texas Government Code.

15. Insurance

The Engineer shall obtain, keep and maintain any and all insurance that may be required by law or that may be required by any agreement the County has with any other party concerning the Project. The Engineer's insurance policies shall be the primary policies. Under no circumstances will the County be liable for any policy premiums or deductibles. The Minimum Insurance Requirements are attached hereto as Appendix C. During the Term of this Agreement and any extensions thereto, the Engineer at its sole cost and expense shall provide insurance of such type and with such terms and limits as may be reasonably associated with this Agreement as stated in attached Exhibit C.

16. Indemnification

**TO THE EXTENT ALLOWED BY LAW, THE ENGINEER AGREES TO INDEMNIFY AND HOLD HARMLESS THE COUNTY, ITS OFFICERS, EMPLOYEES, AND AGENTS FROM LIABILITY, LOSSES, EXPENSES, DEMANDS, REASONABLE ATTORNEYS' FEES, AND CLAIMS FOR BODILY INJURY (INCLUDING DEATH) AND PROPERTY DAMAGE TO THE EXTENT CAUSED BY THE NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT OF THE ENGINEER (INCLUDING THE ENGINEER'S AGENTS, EMPLOYEES, VOLUNTEERS, AND SUBCONTRACTORS/CONSULTANTS UNDER CONTRACT, OR ANY OTHER ENTITY OVER WHICH THE ENGINEER EXERCISES CONTROL) IN THE PERFORMANCE OF THE SERVICES DEFINED IN THIS AGREEMENT. THE ENGINEER SHALL ALSO SAVE THE COUNTY HARMLESS FROM AND AGAINST ANY AND ALL EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, IN PROPORTION TO THE ENGINEER'S LIABILITY, THAT MIGHT BE INCURRED BY THE COUNTY, IN LITIGATION OR OTHERWISE RESISTING SUCH CLAIMS OR LIABILITIES.**

17. Delivery of Notices, Etc.

- a. All routine written notices, invoices, change orders, etc. are to be delivered to the Deputy Director, Engineering/Construction at the Harris County Toll Road Authority, 7701 Wilshire Place Drive, Houston, Texas 77040, or at such other place or places as the County may designate by written notice delivered to the Engineer.



All formal notices and demands under this Agreement shall be delivered to the Harris County Toll Road Authority, 7701 Wilshire Place Drive, Houston, Texas 77040, Attention: Executive Director.

- b. All written notices, demands, and other papers or documents to be delivered to the Engineer under this Agreement shall be delivered to Quiddity Engineering, LLC, 6330 West Loop South, Suite 150, Bellaire, Texas 77401, Attention: Steve Berckenhoff, or at such other place or places as the Engineer may designate by written notice delivered to the County.

18. 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 County, setting forth a full and concise statement of the facts pertaining thereto. The Engineer shall also immediately send the County a copy of any summons, subpoena, notice, or 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.

19. The County's Acts

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

20. Limitations

Notwithstanding anything herein to the contrary, all covenants and obligations of the County under this Agreement shall be deemed to be valid covenants and obligations only to the extent authorized by the Act creating the County and permitted by the laws and the Constitution of the State of Texas.

21. Captions Not a Part Hereof

The captions or subtitles 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.

22. Controlling Law, Venue

This Agreement shall be governed and construed in accordance with the laws of the State of Texas. This Agreement shall be performed entirely in Harris County,

Texas and the parties hereto acknowledge that venue is proper in Harris County, Texas, for all disputes arising hereunder and waive the right to sue or be sued elsewhere.

23. Successors and Assigns

The County 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.

24. Independent Contractor

Notwithstanding any provision of this Agreement, the Engineer shall at all times act as an independent contractor, not as an employee of the County, and the Engineer shall be responsible for the means and methods employed in performing services hereunder.

- a. The Services performed by the Engineer under this Agreement are performed by the Engineer as an independent contractor. This Agreement is not intended to create and shall not constitute a partnership or joint venture between the parties. The Engineer shall have and retain the exclusive right of control over employment, firing, discipline, compensation, insurance, and benefits in accordance with the applicable laws of the State of Texas. The Engineer has no authority to bind or otherwise obligate the County orally, in writing or by any act or omission. Nothing contained herein shall establish an agency, employee-employer relationship, partnership, joint enterprise, joint employer, or joint venture relationship by or between the County and the Engineer.
- b. The Engineer warrants that it will comply with all applicable federal and state laws including, but not limited, to the Prompt Pay Act, in the payment of its employees or subcontract employees.
- c. The Engineer is solely responsible for the payment of wages and any applicable benefits to workers for Services performed for the County. The Engineer shall be responsible for withholding federal and state income taxes, paying Federal Social Security taxes, maintaining unemployment insurance and maintaining workers' compensation insurance in an amount and under such terms as required by the applicable laws of the State of Texas.
- d. The Engineer's workers are not entitled to any contributions by or benefits from the County for any pension plan, bonus plan or any other benefit plan. The Engineer and the workers furnished by the Engineer shall not be entitled to any fringe benefits or similar benefits afforded to employees of the County. The County is not liable for payment of any federal or state taxes and charges including, but not limited to, income withholding taxes, social security,

unemployment, workers' compensation, and similar taxes and charges. This Article shall survive the expiration or termination of this Agreement.

25. Certificate of Interested Parties (Form 1295)

Texas law requires all parties who enter into any contract with the County that must be approved by Commissioners Court to disclose all Interested Parties. Texas Ethics Commission Form 1295, must be completed in its entirety. If changes to this Form are necessary during this Agreement, the Engineer will notify and send the County an updated and complete version.

26. Additional Statutory Requirements

Company represents and certifies that, at the time of execution of this Agreement, Company (including any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same) is not listed by the Texas Comptroller of Public Accounts pursuant to Chapters 2252 or 2270 of the Texas Government Code, nor will Company engage in scrutinized business operations or other business practices that would cause it to be listed during the term of this Agreement.

27. Dispute Resolution

In an effort to resolve any conflicts that arise during design or construction of the Project or following the completion of the Project, the County and the Engineer agree that all disputes between them arising out of or relating to this Agreement shall first be submitted to non-binding mediation unless the parties mutually agree otherwise. This provision does not preclude available legal remedies in the event the parties are unable to resolve said conflicts through mediation.

28. Historically Underutilized Business Requirements

The State of Texas maintains a Historically Underutilized Business Program, which identifies any business at least 51 percent owned by an Asian Pacific American, African American, Hispanic American, Native American, woman and/or Service Disabled Veteran, who reside in Texas and actively participate in the control, operations and management of the entity's affairs as a Historically Underutilized Business.

In accordance with Section 284.007 of the Texas Transportation Code, the County shall make a good faith effort to meet or exceed goals provided under Section 284.007(b) for awarding contracts and subcontracts associated with a project it operates, maintains, or constructs to historically underutilized businesses. For purposes of this section, the term "historically underutilized business" has the meaning given to such term in subsection (d) of Section 284.007, Transportation Code.

The Engineer agrees to reasonably assist the County in its efforts to meet or exceed the goals provided under Section 284.007(b) for awarding contracts or subcontracts to historically underutilized businesses.

The Engineer will take affirmative steps to assure that minority firms and specifically women's business enterprises are used when possible and will not be discriminated against on the grounds of race, color, religious creed, sex, or national origin in consideration for an award.

Affirmative steps shall include:

1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
2. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises; and
4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises.

The Engineer shall submit evidence of compliance to Appendix X when requested by County.

**[SIGNATURE PAGE FOLLOWS]**

**APPROVED AS TO FORM:**

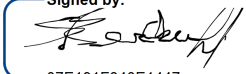
CHRISTIAN D. MENEFEE  
County Attorney

HARRIS COUNTY

DocuSigned by:  
By:   
0B97D3E185574E3  
MARCY LINEBARGER  
Senior Assistant County Attorney  
25GEN0805

By: \_\_\_\_\_  
LINA HIDALGO  
County Judge  
  
Date: \_\_\_\_\_

**QUIDDITY ENGINEERING, LLC**

Signed by:  
By:   
07E194F840F1417  
Name: Steve Berckenhoff  
Title: Senior Vice President  
Date: 4/9/2025

## **APPENDIX A**

### **SCOPE OF SERVICES**

#### **Quiddity Engineering, LLC**

#### **Construction Engineering Inspection Services in Support of Heavy Highway, Bridge, and Drainage Maintenance and Other Related Maintenance**

#### **PROJECT LOCATION / DESCRIPTION**

Heavy highway, bridge, and drainage maintenance project is a countywide project that will have active construction ongoing in each precinct. This project will also include work within HCTRA limits of Tomball Tollway.

#### **PROJECT SCOPE**

This project includes rail replacement, lift station rehabilitation, pavement repair, roadside ditch repair, digital message sign retrofit, bearing pad replacement and other miscellaneous construction. This project will also include Tomball Tollway permeable friction course surface pavement replacement and other inspection services as needed.

#### **SERVICES TO BE PROVIDED BY THE ENGINEER**

#### **GENERAL REQUIREMENTS**

The Engineer shall be responsible for the Construction Engineering and Inspection of the assigned project, to verify it is constructed in accordance with the Contract Documents. Under this Agreement, Construction Engineering and Inspection Services will include Construction Project Management, Inspection, Project Document and Cost Control, and Personnel Management. Also included are Supplemental Design Engineering Services as needed.

The Engineer shall provide all labor, materials, and supervision necessary to perform professional CEI services. The Engineer shall assist and advise HCTRA in matters of policy and procedure, and generally accepted industry practices. The Engineer shall follow HCTRA's Standard Operating Procedures when applicable as referred to by the HCTRA PM. The Engineer shall identify deficiencies in the work of the contractor, its subcontractors, vendors, and consultants in specific construction operations and inform HCTRA of these deficiencies.

The Engineer shall coordinate with the HCTRA Project Manager (PM) to schedule the inspection of contractor work activities. The Engineer shall be on-site performing

inspection duties at any time the work is being performed including nighttime hours, holidays, or weekends, as required by the approved construction work plan.

The Engineer shall close out the project, ensuring that all project-related issues have been resolved to HCTRA's satisfaction. The Engineer shall also ensure that all project documentation is delivered to HCTRA.

The Engineer shall provide qualified technical and professional personnel that adhere to professional standards consistent with generally accepted industry practices. Unless otherwise instructed by HCTRA, the Engineer shall minimize the need for HCTRA to apply its own resources to assignments.

The Engineer shall verify compliance with and prepare supplemental design work in accordance with the latest version of applicable Harris County Toll Road Authority, HCTRA, or Texas Department of Transportation, TxDOT's, (the State or State's) procedures, specifications, manuals, guidelines, standard drawings, and standard specifications or previously approved special provisions and special specifications, which include: TxDOT *PS&E Preparation Manual*, *Roadway Design Manual*, *Hydraulic Design Manual*, the *Texas Manual on Uniform Traffic Control Devices (TMUTCD)*, *Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (latest Edition)*, and other State approved manuals. When design criteria are not identified in HCTRA or State manuals, the Engineer shall notify HCTRA and refer to the American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Street*, (latest Edition).

HCTRA may delegate to the Engineer a level of decision-making authority HCTRA deems appropriate.

The Engineer shall submit a monthly written progress report to the HCTRA PM using the appropriate template provided by HCTRA regardless of whether the Engineer is invoicing for that month. The Engineer's written progress report shall describe Engineer's activities during the reporting period; any problems or issues encountered and actions taken or proposed to remedy them; and overall status, including a percent complete by task.

The Engineer shall identify, track, and assist in the resolution of construction issues and conflicts. The Engineer shall provide data to the HCTRA PM to support the monitoring and recording of construction activities.

The Engineer shall be granted limited access to use specific software applications necessary to perform work under the contract (e.g., MANAGE-IT). The Engineer shall not attempt to access HCTRA's software applications without approval. At the end of the contract, HCTRA will revoke any access rights granted under this contract. Additionally, HCTRA may revoke all access granted under this contract at any time if HCTRA deems that it is necessary to protect the integrity and/or the security of its networks.

## **FUNCTION CODE 310 - GENERAL FUNCTION**

### **310.1 CONSTRUCTION PROJECT MANAGEMENT / INSPECTION**

The Engineer shall, if requested, review the Construction Contract Documents, specifically the plans and specifications, prior to the documents being posted with the bid advertisement, for clarity and completeness, and constructability. The review shall also determine that the documents are adequate for managing the quality, budget, and schedule of the project. Comments generated from the review shall be provided to HCTRA.

The Engineer shall attend pre-bid meetings and assist HCTRA in responding to inquiries concerning requirements and expected performance.

The Engineer, if requested, will furnish assistance by evaluating bidders' qualifications and making Contract award recommendations based on County Policy and HCTRA Specifications.

The Engineer will conduct the Pre-Construction Meeting. The meeting will serve as an orientation session to introduce all the parties, define their responsibilities, and explain the systems and procedures that will be utilized during construction. These responsibilities include developing the meeting agenda, taking meeting notes to document decisions, and distributing meeting notes.

The Engineer, as needed or requested by HCTRA, will provide qualified personnel to execute the function of a Resident Engineer. The Resident Engineer will report to the HCTRA Project Manager. The Engineer, as needed or requested by HCTRA, will provide qualified personnel to execute the function of Technical Advisor, Field Engineer, Design Engineer, Office Engineer, CADD Operator, Scheduler, Office Manager, Record Keeper, Public Engagement/Communications Coordinator, and Inspection staff who will report to the Resident Engineer. The Engineer will assign field personnel to the Project. The Engineer will obtain written approval of field personnel assignments from HCTRA prior to implementation.

Each assigned construction project may require unique support activities; however, the typical expectations and responsibilities for the Engineer are as follows.

The Engineer shall be knowledgeable about contract administration and administer the contract in accordance with Items 1-9 of the current version of the HCTRA Standard Specifications for the Construction and Maintenance of Highways, Streets, and Bridges, unless otherwise noted, with particular emphasis on Items 4-9:

- Item 1 – Abbreviations and Definitions
- Item 2 – Instructions to Bidders
- Item 3 – Award and Execution of Contract
- Item 4 – Scope of Work



- Item 5 – Control of the Work
- Item 6 – Control of Materials
- Item 7 – Legal Relations and Responsibilities
- Item 8 – Prosecution and Progress
- Item 9 – Measurement and Payment

The Engineer will manage the progress of assigned construction contracts. The Engineer will coordinate inspection and materials testing personnel; manage Project schedules; coordinate, respond, and track Project RFI (request for information); coordinate and track submittals; review and approve required Project shop drawings and submittals; provide supplemental design engineering services (i.e., signed and sealed plan sheets); and provide any other services requested by HCTRA to support timely Project completion.

The Engineer shall schedule and conduct recurring Construction Progress Meetings to discuss any project issues, future work, pending RFIs, Submittals, Change Orders, etc. The Engineer shall prepare and distribute meeting minutes. At a minimum, these Construction Progress Meetings shall be held every two weeks.

The Engineer shall attend any meetings required by HCTRA to discuss specifications and action plans regarding the pertinent bid items, e.g., Pre-Con meetings, Safety meetings, Pre-Activity meetings, etc. The Engineer shall provide the required documents for these meetings as well as prepare and distribute meeting minutes.

The Engineer will review the Project plans and specifications in advance of the various work operations on a continual basis throughout the Project and be thoroughly familiar with the Project requirements. Digital copies of construction contract plans and specifications for the Project shall be provided by HCTRA. The Engineer is expected to look at the future Project operations to identify potential constructability problems, impacts to toll road operations, conflicts, omissions, plan errors, differing site conditions, etc. that could result in delays, deficient work, or extra costs and bring these issues to HCTRA's attention. The Engineer shall make recommendations to HCTRA on how to address these issues and may be required to provide design services (i.e., signed and sealed plan sheets) to help HCTRA resolve these issues in a timely manner.

The Engineer will monitor the Project contractor's established traffic control and daily operations for compliance with plans, specifications, and Texas Manual on Uniform Traffic Control Devices (TMUTCD) requirements, otherwise referred to as the contract documents. The Engineer shall monitor the contractors' traffic control every day, checking the entire project from the traveling public's perspective to ensure thoroughness, clarity, and appropriateness of all traffic control devices.

The Engineer is responsible for monitoring the Project's operation to verify that the contractor's workmanship and materials incorporated into the Project meet the requirements of the contract documents. The Engineer is responsible for managing and directing daily inspection crews and ensuring the inspectors are properly documenting all daily construction activities, daily photo log, weather conditions, daily equipment, daily

crew/personnel on site, time charges, daily quantities with measurements and calculations, Contractor's resources, as well as Project specific information. Any discrepancy or deviation from Project contract documents needs to be identified immediately and brought to the attention of the Project contractor and HCTRA's PM for correction. If required, the Engineer will prepare Project documentation for claim negotiations, hearings, or litigation.

If applicable to the project and if requested, the Engineer shall assist HCTRA with oversight of the Contractor and the construction process in the implementation of sustainability and/or resiliency features that are specified in contract documents. When applicable, the Engineer shall facilitate the successful achievement of project verification through the Envision sustainable infrastructure framework. This includes ensuring the Contractor is performing record-keeping and documentation as specified in the contract documents and as required by HCTRA. Other assistance tasks include monitoring and inspecting construction activities related to sustainability and resiliency as specified in the contract documents and as directed by HCTRA.

The Engineer will monitor the Project contractor's operations for conflicts with utilities, permit compliance and unforeseen job site conditions associated with the Project. The Engineer will coordinate issues with HCTRA's PM.

The Engineer shall require the Construction Contractor to provide evidence that all required permits, licenses, insurance, bonds, and certificates have been obtained and are current throughout the contract.

The Engineer will coordinate and monitor the performance of HCTRA's designated Materials Testing Labs for the project to help verify that sampling, testing, and reporting are performed as required and in a timely manner. The Engineer shall review the testing data and verify that testing results meet the Project specified requirements.

The Engineer, in conjunction with HCTRA, will be responsible for coordination between various entities on the Project, which include, but are not limited, to: County, Designers, TxDOT Personnel/Contractors, Cities, Utility companies, County contractors, HCTRA Personnel/Contractors, Law Enforcement, Incident Management, Railroad Companies, Materials Testing Services, etc.

The Engineer will evaluate the Project contractor's cost proposals/claims for additional compensation for extra work or time. Each change order proposal will be reviewed for validity and completeness of time impact and cost of change order work. The Engineer will provide recommendations to HCTRA for approval prior to implementation. The Engineer will assist HCTRA in negotiating dispute resolutions. The Engineer may be required to prepare signed and sealed plan sheet revisions and specification modifications associated with a desired change in the construction Project scope. The Engineer may be requested to prepare a Project bid item quantity "update and reconciliation" change order and contingency balance analysis (including pending change orders) on an agreed-upon frequency. The quantity "update and reconciliation" change

order mentioned above shall address all known quantity overruns and completed significant quantity underruns.

The Engineer will review the Project contractor's field documentation monthly to verify compliance with the Texas Pollutant Discharge Elimination System (TPDES) permit requirements. The Engineer will check the Project on a regular basis and after each heavy rainfall to verify that the Storm Water Pollution Prevention Plan (SWPPP) is being followed as required and timely maintenance is occurring. The Engineer will document discrepancies on a TPDES/SWPPP checklist and report deficiencies to HCTRA's Engineer.

When the Engineer is called upon to observe the work of the Project contractor(s) for the detection of defects or deficiencies in such work, the Engineer will not bear any responsibility or liability for such defects or deficiencies in the work. The Engineer shall not make inspections or reviews of the safety programs or procedures of the Project contractor(s) and shall not review their work for the purpose of ensuring their compliance with safety standards. No fault or negligence shall be attributed to the Engineer based upon the acts or omissions of any Project contractor(s). Construction safety shall remain the sole responsibility of the Project contractor(s).

The Engineer shall review, analyze, provide recommendations, and submit a review report on the contractor's preliminary schedule and baseline schedule. The Engineer shall monitor the progress of the contractor's approved schedule and the progress of the work with the goal of meeting the contract completion date, review and monitor the contractor's work schedule monthly and recommend to HCTRA any changes or needed changes to the schedule. The Engineer shall perform a Critical Path Methodology (CPM) schedule analysis.

The Engineer shall notify HCTRA if the schedule does not adequately reflect appropriate completion dates, reasonable resources, or errors in logic. If additional time is requested by the contractor, the Engineer shall review the contractor's request and verify the time impact analysis.

The Engineer shall reconcile quantities with the Contractor monthly. The Engineer will compile, review, and recommend for approval the Construction Contractor's monthly, pre-final and final pay estimates for the construction of the Project utilizing MANAGE-IT. The Engineer will submit monthly pay estimates by the date that is determined by HCTRA for each estimate cycle.

The Engineer shall administer the material on hand, process necessary paperwork, and shall verify eligibility for payment of any material requested for payment of material on hand. The on-site and off-site checks, as directed by HCTRA, are to be performed to verify the material is part of the contractor's inventory.

The Engineer will perform a Final Inspection in conjunction with the HCTRA PM as requested by HCTRA. The Engineer shall, within five (5) days of the completion of the

final inspection, present the Construction Contractor with a list of all deficiencies and omissions. The Engineer shall verify that all punch list work is complete before recommending final acceptance to HCTRA.

Upon receipt of written correspondence from the contractor, the Engineer shall draft a response within five working days for HCTRA to review, comment, approve, and sign. The Engineer shall track all correspondence, approved or outstanding. The Engineer shall send all informal correspondence to HCTRA via e-mail. The Engineer shall send all formal correspondence to HCTRA on the Engineer's letterhead. The Engineer shall copy the HCTRA PM on all internal and external correspondence.

### **310.2 DELIVERABLES FOR TASK 310.1**

At a minimum, the Engineer shall provide the following:

- A. Request for Information (RFI) log
- B. Submittal log
- C. Utility conflict log
- D. SWPPP reports
- E. Monthly progress report
- F. Barricade inspection reports
- G. Preliminary Schedule and Baseline Schedule review
- H. Meeting minutes
- I. Time Impact Analysis reviews
- J. Monthly Pay Estimates
- K. Material On Hand report
- L. Final Acceptance Letter

## **FUNCTION CODE 320 - GENERAL FUNCTION**

### **320.1 RECORD DRAWINGS AND FINAL CONSTRUCTION DOCUMENTS**

For HCTRA projects, record drawings are project drawings in hard copy and PDF formats, compiled by the Resident Engineer at the end of construction of the project. Record drawings shall consist of original plans issued by the design Engineer-of-Record, EOR (excluding those that have been superseded by revised plans), revised plans issued by the EOR, and red-lined drawings (plan sheets that show as-found field data or changes made in the field by the RE). Record drawings shall be generated as described in the following sections.

#### **Maintenance of Record Set of Drawings during Construction**

The Resident Engineer is responsible for maintaining the official set (master copy) of project drawings during construction, starting with the Conformed Plan Set, which are drawings issued for construction after they had been updated to incorporate addenda issued during the advertisement/procurement phase. The Conformed Plan Set is a clean set of drawings with pre-construction revision notations removed. The Resident Engineer shall update the conformed plan set with revised plans and red-lined as-built information throughout the construction of the project. This set of plans will include all revised design plan sheets issued by the EOR and the Resident Engineer shall ensure that superseded drawings are promptly replaced in the set of project drawings. The set of plans will also include all plan sheets upon which field changes have been made. Field changes, which do not constitute design changes, shall be shown in red, and these drawings must be neat, legible, and clearly show what was changed in the field. The Resident Engineer is responsible for collecting information, red-lining drawings, and maintaining a separate and comprehensive set of as built information.

Contractors are also responsible for creating and maintaining a set of as-built drawings that include red-lined changes in the field and any field data collected during construction. Field data is defined as information collected on site while constructing the project, which is not available from the contract documents, addenda, change orders, or site instructions. It is important that the Contractor record all field information relating to concealed conditions on their as-built set of drawings.

Any project drawings upon which the Construction Contractor has documented the actual locations of installations and/or changes made during construction to the original contract documents shall be reviewed with the Resident Engineer in real time.

- If the Contractor encounters an existing facility that is at a location different from that shown on project drawings, the Construction Contractor shall document the correct location on the project drawings and include such in the as-built drawing reconciliation with the RE.
- For projects involving bridge construction, the Tip Elevation of drilled shafts or pile foundations must be indicated on the bridge layout sheets.
- If the Contractor identifies a need to perform work differently from what is shown on project drawings, the Contractor shall discuss such anticipated change with the

Resident Engineer or designee prior to performing the work. Discussions of changes will be documented through the RFI and/or Change Order process. Changes executed by the Contractor shall be documented on their set of drawings.

- The Resident Engineer will require that the Contractor's marked-up drawings be kept up to date, neat, and orderly in appearance.

### **Monthly submittal of Contractor As-Built drawings to the Resident Engineer**

The Construction Contractor shall compile and submit their as-built drawings for each month of work to the Resident Engineer within 5 days of the pay estimate cutoff date for each month. The Resident Engineer shall review the Contractor's as-built drawings and reconcile any differences between the Contractor's as-built drawings and the Resident Engineer's records. If necessary, the Contractor and Resident Engineer shall meet to resolve any differences.

### **Final submittal of Contractor as-built drawings to the Resident Engineer**

The Contractor shall submit their final as-built drawings within 30 days of the completion of construction activities, or as directed by HCTRA PM. The Resident Engineer shall review the Contractor's final as-built drawings and reconcile any differences between the Contractor's as-built drawings and RE's official set. If necessary, the Contractor and Resident Engineer shall meet to resolve any differences.

### **Compilation of Record Drawings by Resident Engineer**

After the Resident Engineer has verified the accuracy and completeness of the As-built Drawings (including confirming that all plans revised by the EOR have been inserted into their appropriate location, and their corresponding superseded plans have been stamped as "Superseded" and moved to the back of the plan set), each sheet shall be marked with the words "RECORD DRAWING" in red ink. The Resident Engineer shall give the following Certification Statement marked on the Record Drawings (cover sheet only) in red ink, fill in the required information, and sign his or her name.

THE UNDERSIGNED CERTIFIES THAT TO THE BEST OF THEIR KNOWLEDGE THE CONTENT, ACCURACY AND COMPLETENESS OF THESE RECORD DRAWINGS REPRESENT HOW THE PROJECT WAS CONSTRUCTED IN THE FIELD.

CONSTRUCTION MANAGEMENT/CEI FIRM \_\_\_\_\_

RESIDENT ENGINEER'S SIGNATURE \_\_\_\_\_

RESIDENT ENGINEER'S NAME PRINTED \_\_\_\_\_

DATE \_\_\_\_\_

### **Submittal of Record Drawings**

The Resident Engineer shall submit record drawings with the final project documents and provide a letter to the HCTRA PM recommending certification that the project was constructed in substantial compliance with the plans and specifications and that materials incorporated in the construction work and operations were in conformity with the approved plans and specifications.

For projects involving bridge construction, high mast illumination / electrical installation, CTMS/fiber installation, and/or tolling equipment, the RE shall submit to the HCTRA PM:

- One set of complete project plans, one standalone set of high mast/electrical layouts, one standalone set of tolling equipment layouts, and one standalone set of CTMS/fiber layouts, as applicable.

### **320.2 DELIVERABLES FOR TASK 320.1**

At a minimum, the Engineer shall provide the following:

- A. Final Record Drawings
- B. Copies of all change orders created on the project
- C. Material invoices backup
- D. Manifest tickets (Asphalt, Concrete, Hot Mix, Lime)
- E. Material on Hand records
- F. TDLR Inspection Report
- G. Material Test Reports
- H. Required Manufacturer Warranties

## **FUNCTION CODE 351 – DOCUMENT CONTROL**

### **351.1 PROJECT DOCUMENT AND COST CONTROL**

The Engineer shall maintain all records on the project in compliance with HCTRA procedures including Daily Reports (Daily Work Reports, Daily Construction Reports, Inspector Daily Reports, etc.), shop drawings and submittals, RFI drawings, sketches of measured items, sets of plans, record set plans, material on hand forms, and general correspondence.

All construction documentation (Change Orders, Project Schedule, RFIs, Pay Estimates, Submittals, etc.) shall be saved in a Portable Document Format, PDF, and uploaded and filed into MANAGE-IT throughout the course of the Project.

The Engineer is responsible for tracking all required submittals to verify that the Project contractor is providing all required shop drawings and submittals in a timely manner and receiving proper approval prior to implementation. All required submittals and their corresponding revisions will be uploaded and stored on MANAGE-IT, in a filing notation agreed upon by HCTRA's PM.

The Engineer will conduct the pre-construction meeting and construction coordination meetings. The Engineer is responsible for recording meeting minutes and distributing them. The Engineer shall upload meeting minutes to MANAGE-IT.

The Engineer is responsible for uploading and including all necessary documentation (drawing revisions, correspondence, etc.) to support Project RFIs on MANAGE-IT. RFIs are not a change document; however, they can lead to possible design changes and change orders. The change orders and corresponding documentation will need to be uploaded in MANAGE-IT. The Engineer is expected to work in conjunction with HCTRA's PM when a required response will warrant additional work or payment.

The Engineer will review and approve all information entered into the Daily Report in MANAGE-IT. A Daily Report shall be prepared for each day of work from NTP until final acceptance. Daily sketches, measurements and calculation sheets shall be submitted by Project inspectors with their Daily Report for each pay item installed, then checked and approved in MANAGE-IT by the Engineer's Inspector, Chief Inspector, and Resident Engineer. The Contractor must also sign each Daily Report Documenting quantities at the end of the week or month (periods longer than a day) will not be an acceptable performance. All quantities are to be verified and coordinated with the contractor when discrepancies arise.

The Engineer shall keep thorough records on the Construction Contractor's heavy equipment, noting on the daily construction report: equipment description with make and model number, date arrived on Project, owned or rented, hours used/standby, broke down, date it left the Project or moved to another Project section, and a photo of each piece of equipment for equipment log. The Daily Report also will incorporate contract



items of observation and decisions associated with the construction of the Project that could be pertinent to extra work and/or claim situations. Digital photographs with a "Date & Time" stamp shall be taken daily to document construction activities and progress, (with an emphasis on subsurface work) and capture details of problems, conflicts and potential claim issues. The Engineer shall attach each day's photos to the Daily Report in MANAGE-IT.

The Engineer will prepare a monthly summary report of construction activities with outstanding issues outlined for review. The Engineer will verify that complete documentation is submitted by the Construction Contractor for material-on-hand payments and checked for accuracy. The Engineer will compile and submit monthly progress information associated with the Project to HCTRA's PM for review and approval.

Overrun and underrun explanations of original pay item quantities: When original pay item quantities overrun/underrun by 10% or more, the Engineer shall provide a detailed explanation as to why the overrun/underrun occurred. The Engineer shall avoid only stating "design error" as the explanation. The Engineer shall give detailed explanations/justifications of why the overrun/underrun occurred that can be used on the final change order document and may help improve problem areas in the future.

The Engineer will complete the HCTRA Project Closeout Check List in MANAGE-IT. The Engineer will coordinate final documentation processing in accordance with HCTRA standards, policies, procedures, and guidelines and submit to HCTRA's PM upon completion.

The Engineer will prepare an ongoing punch list in MANAGE-IT of discrepancies for the various construction items and monitor the completion and acceptance of the items as required by the Project specifications.

The Engineer will review the Project for substantial completion and final acceptance and coordinate final review walk downs with HCTRA's PM.

The Engineer shall review all potential change orders and provide an estimated cost of change orders to the HCTRA PM. The Engineer shall verify that prices are fair and reasonable based on the time, material, equipment, and labor necessary to perform the work. The Engineer shall provide appropriate documentation including a justification for the change order, revised drawings and plan sheets with appropriate design backup documentation, cost breakdowns, time impacts, and change order descriptions. The Engineer shall record this information in MANAGE-IT.

### **351.2 DELIVERABLES FOR TASK 351.1**

At a minimum, the Engineer shall provide the following:

- A. Confirmation of all documentation uploaded to MANAGE-IT, as required
- B. Monthly summary report of outstanding issues

- C. Overrun and underrun explanation
- D. Project close-out checklist
- E. Appropriate change order information and justification
- F. Daily Reports

## **FUNCTION CODE 390 - GENERAL FUNCTION**

### **390.1 CONSTRUCTION ENGINEERING NOT OTHERWISE CLASSIFIED**

#### Personnel Management

During the project, weather conditions, project delays, or work stoppages might reduce the need for personnel. If requested by HCTRA, the Engineer shall reduce the weekly individual hours of its and its subcontractor's personnel to the number of hours instructed by HCTRA, which may be less than 40.

The Resident Engineer/Senior Inspector will assign inspector/office manager work shifts in accordance with direction from HCTRA's PM. Work shifts may be staggered and adjusted to meet day, night and weekend work requirements and minimize overtime as directed by HCTRA's PM.

All Engineer staff overtime must be approved by the HCTRA PM prior to the overtime being worked.

All Engineer/Staff vacation/paid time off/planned sick leave/other types of time off work must be approved, and HCTRA notified, a minimum of two weeks in advance of the time off.

The Engineer shall notify HCTRA of any personnel unplanned sick before the start of the work shift.

The Engineer shall provide replacement personnel in a timely manner to be approved by HCTRA's PM as required.

Unless otherwise provided by the construction contractor, the Engineer shall provide and maintain all computer equipment, software applications, printers, and phones necessary for the Engineer to perform the work. At the completion of the contract, the Engineer shall retain all computer equipment, printers, cell phones, and software that were provided by the Engineer.

The Engineer shall, and shall require its subcontractors to, (1) provide personal protective equipment (PPE) to their personnel, and (2) require their personnel to use PPE and drive only vehicles equipped with safety light bars 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).

#### Invoicing

The Engineer shall invoice according to the Function Code breakdowns as shown in this Appendix A – Scope of Services and per Appendix B – Maximum Raw Salary Rates. The

Engineer shall submit each invoice electronically directly to the designated HCTRA Contract Coordinator using the appropriate invoice template provided by HCTRA.

On a monthly basis, the Engineer shall enter their Minority and Women-Owned Business Enterprise (MWBE) program reporting information directly into the Harris County Diversity Monitoring System (DMS) portal and/or alternative as provided by the HCTRA Supplier Diversity (MWBE) Group.

#### Public Engagement/Communications/Coordination

The Engineer shall assist HCTRA in public relations activities including the preparation of public information, attending public meetings for the purposes of providing information to the public, and notifying HCTRA personnel of lane closures including press releases. All news conferences and media interviews will be handled by HCTRA.

The Engineer shall initiate and conduct meetings, which include, but are not limited to, the following parties: contractor representatives, neighboring construction projects, public works agencies, utilities, federal officials, HCTRA, and other interested parties. These meetings will aim to maintain adequate cooperation and communication among all partners in this project.

Visitors arriving on the Project shall be politely greeted by the Engineer or assigned representative. The Engineer shall request the visitor's identification and inquire about how the person can be helped. If the visitor is the County Judge, a County Commissioner, County Engineer, Flood Control District Executive Director, or a member of their staff, the Engineer or its representative shall immediately notify the HCTRA PM.

The Engineer shall provide authorized visitors with proper safety attire (hard hat and vest) and offer to take them on a tour of the Project. If the visitor is someone with no official business, he or she shall be told that the area is a construction site, that it is very dangerous and to leave the site immediately. If the visitor is a member of the Media, politely decline any interview request. Direct all media requests for interviews or questions concerning the construction Project to HCTRA Communications at telephone number: (713) 587-7800 or to another Project Spokesperson designated by HCTRA. No consultant or contractor is authorized to speak for or on behalf of the County. Any incident involving the media or trespassers on the site shall be documented on the daily construction report.

Requests or applications by the Engineer for project-specific industry awards, publications, or news features must be coordinated with, and approved by HCTRA.

#### Miscellaneous

When accidents occur within the Project limits, the inspection team members will attempt to obtain Police/Sheriff accident case numbers (without disrupting the Officer's investigation) and document on the Daily Report as much information as possible (attach photos of Project traffic control, damage to HCTRA facilities, accident information, etc.).

### Professional Services Fees

Fees for professional services were based on the following assumptions:

- Work will be sporadic throughout the lifetime of the contract.
- Only two (2) or three (3) inspectors will be necessary for the size of the contract and the scope of work of the construction projects.

### **390.2 DELIVERABLES FOR TASK 390.1**

At a minimum, the Engineer shall provide the following:

- A. Public relations information
- B. Additional coordination meeting minutes
- C. Overtime and time off requests
- D. Visitor report

## APPENDIX B

### MAXIMUM RAW SALARY RATES

#### QUIDDITY ENGINEERING, LLC

**Hourly billings shall be based on certified employee raw rates and shall not exceed the Maximum Raw Rate for their classification.** Engineer shall submit a copy of certified payroll for each employee working on the project with a monthly invoice within the first 3 months, and as needed thereafter to support billing rates on invoices.

Maximum Raw Salary Rates	
Job Classification	Maximum Raw Salary Rate
<b>Engineering &amp; Design</b>	
Resident Engineers IV (Professional Engineer w/a min. 20+ yrs. experience)	\$120
Resident Engineer III (Professional Engineer w/a min 15 yrs. Experience)	\$105
Resident Engineer II (Professional Engineer w/a min. 10 yrs. experience)	\$90
Resident Engineer I (Professional Engineer w/a min. 5 yrs. experience)	\$75
Technical Advisor (min. 25+ yrs. experience)	\$150
Field Engineer II (Professional Engineer w/a min 2 to. 5 yrs. Construction experience)	\$80
Field Engineer I (min. EIT w/2 yrs. Construction experience)	\$70
Office Engineer / Design Engineer (Professional Engineer w/a min. 8 yrs. experience)	\$90
CADD Operator / Sr. CADD Operator	\$65
<b>Schedule</b>	
Scheduler (min. 5 yrs. Primavera Scheduling)	\$75
Sr. Scheduler (min. 10 yrs. Primavera Scheduling)	\$110
<b>Inspection</b>	
Bridge Inspector (min. 15 yrs. Experience)	\$80
Electrical / CTMS Inspector (Journeyman Electrician License and/or min. 15 yrs. experience)	\$100
Chief Inspector (min. 15+ yrs. Experience)	\$90

Inspector IV / Senior Inspector (Level IV NICET Certified or min. 15 yrs. Experience)	\$70
Inspector III (Level III NICET Certified or min. 10 yrs. experience)	\$60
<b>Maximum Raw Salary Rates (cont.)</b>	
Inspector II (Level II NICET Certified and/or min 5 yrs. experience)	\$50
Inspector I (Level I NICET Certified and/or min. 2 yrs. experience)	\$40
Environmental Inspector III (Level III NICET Certified and/or min. 10 yrs. experience)	\$60
<b>Construction Engineering Not Otherwise Classified</b>	
Public Engagement/Communications/Coordination (min. 10+ yrs. experience)	\$100
Public Engagement/Communications/Coordination (min. 5 yrs. experience)	\$75
Public Engagement/Communications/Coordination	\$60
<b>Administration</b>	
Record Keeper	\$55
Office Manager	\$65

**Experience Note:**

Experience to be HCTRA/TxDOT construction experience or equivalent using TxDOT Specifications. Exceptions may be given on a case-by-case basis with prior written consent from HCTRA.

**Note:**

Written request and approval is required for all consultant staff before working on this project using the Consultant Staff Approval form attached hereto.

The above maximum raw salary amounts will be increased X% (Not to exceed 4%) starting on the 1<sup>st</sup> day of the month after each anniversary date of the County Judge's execution of this contract. X% will be the average of the prior 12+ month period using the last six recorded adjustments in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the Houston-Galveston-Brazoria, TX area as given by the United States Department of Labor, Bureau of Labor Statistics. This index is calculated every other month and is not seasonally adjusted. The average X% will be rounded to the first digit to the right of the decimal. Example 3.25% will 3.3% and 3.24% will be 3.2%. Classifications and raw salary rates added or changed by amendment after initial approval of the contract will fall under the original annual adjustment criteria above for consistency.

**Maximum Reimbursable Expenses**

Vehicles (Field Staff) ** (w/Required Safety Light Bars)	Each/Month	\$ 1,200.00
Cell Phones**	Each/Month	\$ 100.00
Courier/FedEx Delivery	Each	At cost
Mileage	Per mile	Current IRS Approved Rate
Miscellaneous	Each	At cost

**Note:** There shall be no markup allowed on reimbursable expenses by any parties.

\*\* Full amount of vehicle and cell phone allowance is to be paid to the employee unless provided by the Engineer. Vehicle and cell phone rates may be prorated for part time staff; or the mileage rate will be paid in lieu of monthly vehicle rate as determined by the County.



## APPENDIX C

### MINIMUM INSURANCE REQUIREMENTS

#### Quiddity Engineering, LLC

During the term of the Contract, the Contractor at its sole cost and expense shall provide primary commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Contractor shall provide and maintain the following coverage and limits:

- A. Workers Compensation**, as required by the laws of Texas, **and Employers' Liability**, as well as All States, USL&H (United States Longshore and Harbor Works Act) and other endorsements if applicable to the project, and in accordance with state law.

Employers' Liability

- Each Accident: \$1,000,000
- Disease—Each Employee: \$1,000,000
- Policy Limit: \$1,000,000

- B. Commercial General Liability**, including but not limited to the coverage indicated below. Coverage shall not exclude or limit Products/Completed Operations, Contractual Liability, or Cross Liability. Where exposure exists, the County may require coverage for watercraft, blasting, collapse, explosions, blowout, cratering, underground damage, pollution, or other coverage. *Harris County shall be named Additional Insured on primary/non-contributory basis.*

- Each Occurrence: \$1,000,000
- Personal and Advertising Injury: \$1,000,000
- Products/Completed Operations: \$1,000,000
- General Aggregate (per project): \$2,000,000

- C. Automobile Liability**, including coverage for all owned, hired, and non-owned vehicles used in connection with the contract. *Harris County shall be named Additional Insured on primary/non-contributory basis.*

- Combined Single Limit-Each Accident: \$1,000,000

- D. Umbrella/Excess Liability** (*Harris County shall be named Additional Insured on primary/non-contributory basis*)

- Each Occurrence/Aggregate: \$1,000,000

- E. Professional/Errors & Omissions Liability** (if applicable)

- Each Occurrence/Aggregate: \$1,000,000
-

The County reserves the right to require additional insurance if necessary. Coverage shall be issued by companies licensed (by TDI) to do business in Texas and who have an A.M. Best rating of at least A-. Contractor shall furnish evidence of such insurance to the County in the form of unaltered insurance certificates. If any part of the contract is sublet, insurance shall be provided by or on behalf of any subcontractor, and shall be sufficient to cover their portion of the contract. Contractor shall furnish evidence of such insurance to the County as well.

Policies of insurance required by the contract shall waive all rights of subrogation against the County, its officers, employees and agents. If any applicable insurance policies are cancelled, materially changed, or non-renewed, contractor shall give written notice to the County at least 30 days prior to such effective date and within 30 days thereafter, shall provide evidence of suitable replacement policies. Failure to keep in force the required insurance coverage may result in termination of the contract. Upon request, certified copies of original insurance policies shall be furnished to the County.

The requirements stipulated in this attachment do not establish limits of contractor liability.  
Rev. 10/2011

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**APPENDIX X**  
**Disclosure of M/WBE Participation**  
**Quiddity Engineering, LLC**

<b>Name of MBE/WBE Certified Firm</b>	<b>Blacksmith Construction Services, LLC</b>
Certified by:	Texas Comptroller of Public Accounts
Address / City / State / Zip:	6925 Masters Rd Unit #726 / Manvel / TX / 77578
Name of Contact Person:	Sonia Schmidt
Email address for Contact Person:	<a href="mailto:Sonia@bcsoftexas.com">Sonia@bcsoftexas.com</a>
Telephone number for Contact Person:	(346) 696-0550
Percent of Subcontract:	11%
Description of services:	Construction inspection support
6-digit NAICS code for work to be performed:	237310

<b>Name of MBE/WBE Certified Firm</b>	<b>Project Surveillance, Inc.</b>
Certified by:	City of Houston
Address / City / State / Zip:	510 East Main St. / Humble / TX / 77338
Name of Contact Person:	Jonathan Marks
Email address for Contact Person:	<a href="mailto:Jonathan@projectsurveillance.com">Jonathan@projectsurveillance.com</a>
Telephone number for Contact Person:	(832) 347-3915
Percent of Subcontract:	9%
Description of services:	Project schedule & construction inspection support
6-digit NAICS code for work to be performed:	237310

**ORDER OF COMMISSIONERS COURT**  
**Authorizing Agreement with Quiddity Engineering, LLC**

The Commissioners Court of Harris County, Texas, met in regular session at its regular term at the Harris County Administration Building in the City of Houston, Texas, on \_\_\_\_\_, with all members present except \_\_\_\_\_.

A quorum was present. Among other business, the following was transacted:

**ORDER AUTHORIZING AGREEMENT WITH**  
**QUIDDITY ENGINEERING, LLC FOR CONSTRUCTION ENGINEERING**  
**INSPECTION SERVICES FOR HEAVY HIGHWAY, BRIDGE AND**  
**DRAINAGE MAINTENANCE PROJECTS**

Commissioner \_\_\_\_\_ introduced an order and moved that Commissioners Court adopt the order. Commissioner \_\_\_\_\_ seconded the motion for adoption of the order. The motion, carrying with it the adoption of the order, prevailed by the following vote:

	Yes	No	Abstain
Judge Lina Hidalgo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Rodney Ellis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Adrian Garcia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Tom S. Ramsey, P.E.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Lesley Briones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The County Judge thereupon announced that the motion had duly and lawfully carried and that the order had been duly and lawfully adopted. The order adopted follows:

IT IS ORDERED that:

1. The Harris County Judge is authorized to execute on behalf of Harris County an agreement in an amount not to exceed \$1,430,000.00 with Quiddity Engineering, LLC for construction engineering inspection services for Heavy Highway, Bridge and Drainage maintenance projects. The Agreement is incorporated by and made a part of this order for all intents and purposes as though set out in full word for word.
  2. All Harris County officials and employees are authorized to do any and all things necessary or convenient to accomplish the purposes of this order.
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