

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

## AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

(Widening of the Northbound Main Lanes of Grand Parkway over Cinco Ranch Boulevard)

This Agreement ("Agreement") is made and entered into by and between Fort Bend County, Texas ("County"), a political subdivision of the state of Texas, and PGAL, Inc. ("Engineer"), a corporation authorized to conduct business in the State of Texas. County and Engineer may be referred to individually as a "Party" or collectively as the "Parties."

WHEREAS, Engineer is a professional engineering firm which provides engineering services in the state of Texas; and

WHEREAS, County desires for Engineer to provide engineering services concerning the widening of the Northbound main lanes of Grand Parkway (SH99) over Cinco Ranch Boulevard–Mobility Bond Project No. 20129x; and

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

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

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

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

1. **Recitals.** The recitals set forth above are incorporated herein by reference and made a part of this Agreement.
2. **Scope of Services.** Engineer shall render services to County as provided in Engineer's Proposal, dated November 30, 2023, attached hereto as "Exhibit A" and incorporated herein by reference.

3. **Time for Performance.** Time for performance of the Scope of Services under this Agreement shall begin with Engineer's receipt of Notice to Proceed and shall end no later than December 31, 2028. Engineer shall complete such tasks described in the Scope of Services, within this time or within such additional time as may be extended by County.
4. **Compensation and Payment Terms.**
- (a) Engineer's fees for the Services shall be calculated at the rate(s) set forth in Exhibit "A" attached hereto. The Maximum Compensation to Engineer for the Services performed under this Agreement is Six Hundred Eleven Thousand, Seven Hundred Ninety-Five dollars and 50/100 (\$611,795.50). In no event shall the amount paid by County to Engineer under this Agreement exceed said Maximum Compensation without an approved change order.
  - (b) Engineer understands and agrees that the Maximum Compensation stated is an all-inclusive amount and no additional fee, cost or reimbursed expense shall be added whatsoever to the fees stated in the attached Exhibit "A."
  - (c) County will pay Engineer based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Engineer shall submit to County staff person designated by the County Engineer, one (1) electronic (pdf) copy of the invoice showing the amounts due for services performed in a form acceptable to County. County shall review such invoices and approve them within 30 calendar days with such modifications as are consistent with this Agreement and forward same to the Auditor for processing. County shall pay each such approved invoice within thirty (30) calendar days. County reserves the right to withhold payment pending verification of satisfactory work performed.
5. **Limit of Appropriation.** Engineer understands and agrees that the Maximum Compensation for the performance of the Services within the Scope of Services described in Section 2 above is Six Hundred Eleven Thousand, Seven Hundred Ninety-Five dollars and 50/100 (\$611,795.50). In no event shall the amount paid by County under this Agreement exceed the Maximum Compensation without a County approved change order. Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of Six Hundred Eleven Thousand, Seven Hundred Ninety-Five dollars and 50/100 (\$611,795.50) specifically allocated to fully discharge any and all liabilities County may incur under this Agreement. Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total Maximum Compensation that Engineer may become entitled to and the total maximum sum that County may become liable to pay to Engineer under this Agreement shall not under any conditions, circumstances, or interpretations thereof exceed Six Hundred Eleven Thousand, Seven Hundred Ninety-Five dollars and 50/100 (\$611,795.50).

6. **Non-appropriation.** Engineer understands and agrees that in the event no funds or insufficient funds are appropriated by the County under this Agreement, County shall immediately notify Engineer in writing of such occurrence and the Agreement shall thereafter terminate and be null and void on the last day of the fiscal period for which appropriations were received or made without penalty, liability or expense to the County. In no event shall said termination of this Agreement or County's failure to appropriate said funds be deemed a breach or default of this Agreement or create a debt by County in any amount(s) in excess of those previously funded.
7. **Taxes.** County is a body corporate and politic under the laws of the state of Texas and as such, is exempt from sales and use taxes. County shall furnish evidence of its tax-exempt status upon written request by Engineer.
8. **Insurance.** Prior to commencement of the Services, Engineer shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days' prior written notice to County. Engineer shall provide certified copies of insurance endorsements and/or policies if requested by County. Engineer shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Engineer shall obtain such insurance written on an Occurrence form from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:
  - (a) Workers Compensation in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
  - (b) Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
  - (c) Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.
  - (d) Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
  - (e) Professional Liability insurance with limits not less than \$1,000,000.

County and members of the Fort Bend County Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability (if required). All Liability policies written on behalf of Engineer shall contain a waiver of subrogation in favor of County.

If required coverage is written on a claims-made basis, Engineer warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the Contract and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning from the time the work under this Contract is completed.

Engineer shall not commence any portion of the work under this Contract until it has obtained the insurance required herein and certificates of such insurance have been filed with and approved by County.

No cancellation of or changes to the certificates, or the policies, may be made without thirty (30) days prior, written notification to County.

Approval of the insurance by County shall not relieve or decrease the liability of Engineer.

9. **Indemnity.** TO THE FULLEST EXTENT PROVIDED BY APPLICABLE LAW, ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS COUNTY, ITS OFFICIALS, OFFICERS, AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, LIABILITY, AND COSTS, INCLUDING THE REIMBURSEMENT OF REASONABLE ATTORNEY FEES, ARISING OUT OF OR RESULTING FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBENGINEER OR SUPPLIER COMMITTED BY ENGINEER OR ENGINEER'S AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH ENGINEER EXERCISES CONTROL. ENGINEER SHALL FURTHER PROCURE AND MAINTAIN GENERAL LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT.
10. **Public Information Act.** Engineer expressly acknowledges and agrees that County is a public entity and as such, is subject to the provisions of the Texas Public Information Act under Chapter 552 of the Texas Government Code. In no event shall County be liable to Engineer for release of information pursuant to Chapter 552 of the Texas Government Code or any other provision of law. Except to the extent required by law or as directed by the Texas Attorney General, County agrees to maintain the confidentiality of information provided by Engineer expressly marked as proprietary or confidential. County shall not be liable to Engineer for any disclosure of any proprietary or confidential information if such information is disclosed under Texas law or at the direction of the Texas Attorney General. Engineer further acknowledges and agrees that the terms and conditions of this Agreement are not proprietary or confidential information.
11. **Compliance with Laws.** Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules, regulations, and the decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. Engineer in providing all

services hereunder, further agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

12. **Independent Contractor.** In the performance of work or services hereunder, Engineer shall be deemed an independent Contractor, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of Engineer. Engineer and its agents, employees, officers, or volunteers shall not, by performing work pursuant to this Agreement, be deemed to be employees, agents, or servants of County and shall not be entitled to any of the privileges or benefits of County employment.
13. **Use of Customer Name.** Engineer may use County's name without County's prior written consent only in Engineer's customer lists. Any other use of County's name by Engineer must have the prior written consent of County.
14. **County/County Data.** Nothing in this Agreement shall be construed to waive the requirements of Section 205.009 of the Texas Local Government Code.
15. **Personnel.** Engineer represents that it presently has, or is able to obtain adequate qualified personnel in its employment for the timely performance of the Services required under this Agreement and that Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Services when and as required and without delays.

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

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

16. **Confidential and Proprietary Information.** Engineer acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to County. Any and all information of any form obtained by Engineer or its employees or agents from County in the performance of this Agreement shall be deemed to be confidential information of County ("Confidential Information"). Any reports or other documents or items (including

software) that result from the use of the Confidential Information by Engineer shall be treated with respect to confidentiality in the same manner as the Confidential Information. Confidential Information shall be deemed not to include information that (a) is or becomes (other than by disclosure by Engineer) publicly known or is contained in a publicly available document; (b) is rightfully in Engineer's possession without the obligation of nondisclosure prior to the time of its disclosure under this Agreement; or (c) is independently developed by employees or agents of Engineer who can be shown to have had no access to the Confidential Information.

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

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

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

17. **Ownership and Reuse of Documents.** All work product and data produced or developed under this Agreement by Engineer, including any documents, data, notes, reports, research, graphic presentation materials, and any other related material, shall at all times be the property of County. County, at all times, shall have a right of access to such work

product and information. Engineer shall promptly furnish all such work product and data to County on request. Notwithstanding the foregoing, Engineer shall bear no liability or responsibility for deliverables that have been modified post-delivery or used for a purpose other than that for which they were prepared under this Agreement.

18. **Inspection of Books and Records.** Engineer shall permit County, or any duly authorized agent of County, to inspect and examine the books, records, information, and documentation of Engineer which relate to the Services provided under this Agreement. County's right to inspect such books and records shall survive the termination of this Agreement for a period of four (4) years, or until any litigation concerning any of the Services has been satisfactorily resolved, whichever occurs later.
19. **Termination.** County may terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Engineer. Upon termination of this Agreement by County, Engineer shall be paid in accordance with Section 4, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to County. Engineer's final invoice for said services will be presented to and paid by County in the same manner set forth in Section 4 above. No fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Engineer by County.
20. **Force Majeure.** Notwithstanding anything to the contrary contained herein, neither Party shall be liable to the other for any delay or inability to carry out its obligations under this Agreement if such delay or inability is the result of a Force Majeure Event. Within a reasonable time after the occurrence of such event, but no later than ten (10) calendar days after, the Party whose obligations are affected (the "Affected Party") thereby shall notify the other in writing stating the nature of the event and the anticipated duration. The Affected Party's obligations under this Agreement shall be suspended during the continuance of any delay or inability caused by the event, but for no longer period. The Affected Party shall further endeavor to remove or overcome such delay or inability as soon as is reasonably possible.

For purposes of this Agreement, a Force Majeure Event includes, but is not limited to: strikes or other labor disputes, severe weather disruptions, natural disasters, fire or other acts of God; riots, war, or other emergencies; action by a government agency; the discovery of any hazardous substance or differing and unforeseeable site conditions; and any other incapacities of any Party, similar to those enumerated, which are not within the control of the Party claiming such inability, which such Party could not have avoided by the reasonable exercise of due diligence and care.

21. **Assignment.** Engineer may not assign this Agreement to another party without the prior written consent of County.

22. **Successors and Assigns Bound.** County and Engineer each bind themselves and their successors and assigns to the other Party and to the successors and assigns of such other Party, with respect to all covenants of this Agreement.
23. **Publicity.** Contact with citizens of Fort Bend County, media outlets, or other governmental agencies shall be the sole responsibility of County. Under no circumstances, whatsoever, shall Engineer release any material or information developed or received during the performance of Services hereunder unless Engineer obtains the express written approval of County or is required to do so by law.
24. **Notice.** Any and all notices required or permitted under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or personally delivered to the following addresses:

**If to County:** Fort Bend County Engineering  
Attn: County Engineer  
301 Jackson Street, 4<sup>th</sup> Floor  
Richmond, Texas 77469

**And**

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

**If to Engineer:** PGAL, Inc.  
3131 Briarpark Drive, Suite 200  
Houston, Texas 77042

25. **Performance Representation.** Engineer represents to County that Engineer has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession ("Professionals") practicing in the greater Houston metropolitan area. Engineer shall provide the Services to County with the same professional skill and care ordinarily provided by such Professionals under the same or similar circumstances and professional license and as expeditiously as is prudent considering the ordinary professional skill and care of a competent Professional.
26. **Entire Agreement and Modification.** This Agreement constitutes the entire Agreement between the Parties and supersedes all previous agreements, written or oral, pertaining to the subject matter of this Agreement. Any amendment to this Agreement must be in writing and signed by each Party to come into full force and effect. **IT IS ACKNOWLEDGED BY ENGINEER THAT NO OFFICER, AGENT, EMPLOYEE, OR REPRESENTATIVE OF COUNTY HAS ANY AUTHORITY TO CHANGE THE TERMS OF THIS**

**AGREEMENT OR ANY ATTACHED EXHIBITS HERETO UNLESS EXPRESSLY AUTHORIZED BY THE FORT BEND COUNTY COMMISSIONERS COURT.**

27. **Conflict.** In the event there is a conflict among the terms of this Agreement and the terms of Engineer's Proposal attached hereto, the terms of this Agreement entitled "Agreement for Professional Engineering Services" shall prevail with regard to the conflict.
28. **Understanding Fair Construction.** By execution of this Agreement, the Parties acknowledge that they have read and understood each provision, term, and obligation contained herein. This Agreement, although drawn by one party, shall be construed fairly and reasonably and not more strictly against the drafting Party than the non-drafting Party.
29. **Severability.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.
30. **No Waiver of Immunity.** Neither the execution of this Agreement nor any other conduct of either party relating to this Agreement shall be considered a waiver or surrender by County of its governmental powers or immunity under the Texas Constitution or the laws of the state of Texas.
31. **Applicable Law and Venue.** This Agreement shall be construed according to the laws of the state of Texas. Venue for any claim arising out of or relating to the subject matter of this Agreement shall lie in a court of competent jurisdiction of Fort Bend County, Texas.
32. **Certain State Law Requirements for Contracts** The contents of this Section are required by Texas law and are included by County regardless of content For purposes of Sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Engineer hereby verifies that Engineer and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:
- (a) Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization, is not identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.
  - (b) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts.

“Boycott Israel” has the meaning provided in § 808.001 of the Texas Government Code.

- (c) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. “Boycott energy company” has the meaning provided in § 809.001 of the Texas Government Code.
  - (d) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. “Discriminate against a firearm entity or firearm trade association” has the meaning provided in § 2274.001(3) of the Texas Government Code. “Firearm entity” and “firearm trade association” have the meanings provided in § 2274.001(6) and (7) of the Texas Government Code.
33. **Human Trafficking.** BY ACCEPTANCE OF THIS AGREEMENT, ENGINEER ACKNOWLEDGES THAT FORT BEND COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.
34. **Captions.** The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of the Agreement.
35. **Electronic and Digital Signatures.** The Parties to this Agreement agree that any electronic and/or digital signatures of the Parties included in this Agreement are intended to authenticate this writing and shall have the same force and effect as the use of manual signatures.
36. **Certification.** By his or her signature below, each signatory individual certifies that he or she is the properly authorized person or officer of the applicable Party hereto and has the requisite authority necessary to execute this Agreement on behalf of such Party, and each Party hereby certifies to the other that it has obtained the appropriate approvals or authorizations from its governing body as required by law.

(Execution Page Follows)

(Remainder of Page Intentionally Left Blank)

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

**FORT BEND COUNTY, TEXAS**

**PGAL, INC.**

\_\_\_\_\_  
KP George, County Judge

\_\_\_\_\_  
Authorized Agent – Signature

Costas Georghiou

\_\_\_\_\_  
Date

\_\_\_\_\_  
Authorized Agent- Printed Name

Principal

**ATTEST:**

\_\_\_\_\_  
Title

2-27-2024

\_\_\_\_\_  
Laura Richard, County Clerk

\_\_\_\_\_  
Date

**APPROVED:**



\_\_\_\_\_  
J. Stacy Slawinski, County Engineer

**AUDITOR'S CERTIFICATE**

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

\_\_\_\_\_  
Robert Ed Sturdivant, County Auditor

# EXHIBIT A

(Engineer's Proposal Follows Behind)

November 30, 2023

Stacy Slawinski, PE  
Fort Bend County Engineer  
301 Jackson St.  
Richmond, Texas 77469

Dear Mr. Slawinski:

PGAL is pleased to submit this revised proposal for engineering services for the widening of the northbound Grand Parkway (SH99) over Cinco Ranch Boulevard. The following is a summarized scope of services and a draft of the overall budget for the complete design effort.

The scope includes project management and engineering services required for the preparation of plans, specifications and estimates (PS&E) and related documents, for the proposed widening of the northbound main lanes of Grand Parkway (SH99) over Cinco Ranch Boulevard. The project will be reviewed and let by TxDOT. A detailed project scope organized per TxDOT guidelines is included and shall include, but are not limited to the following:

**FEASIBILITY STUDIES (FUNCTION CODE 110)**

- Data Collection and Field Reconnaissance. The Engineer shall collect, review and evaluate data, if available, from the State, the Federal Emergency Management Agency (FEMA), the United States Army Corps of Engineers (USACE), local municipalities, and other governmental agencies.
- Design Criteria. The Engineer shall develop the roadway design criteria based on the controlling factors specified by the State.
- Preliminary Cost Estimates. The Engineer shall develop a preliminary cost estimate using the State Average Low Bid Unit Price
- Design Concept Conference. In accordance with the State's Project Development Process Manual, the Engineer, in cooperation with the State, shall plan, attend and document the Design Concept Conference (DCC) to be held prior to the 30 percent milestone submittal.
- Geotechnical Borings and Investigations: The Engineer shall prepare a geotechnical report that evaluates the existing soil conditions and provides recommendations for bridge design, embankment settlement analysis, retaining walls, slope stability and along storm drain alignment in accordance with the latest edition of the State's Geotechnical Manual. The Engineer shall evaluate available boring information

obtained for the Grand Parkway widening project and recommend utilization of suitable boring information.

#### **SOCIAL/ECON/ENVIRON STUDIES (FUNCTION CODE 120)**

- Informal Meetings. The Engineer shall provide technical assistance, preparation of exhibits for, and minutes of informal meetings requested by the public to discuss the pending impacts to neighborhoods and businesses due to roadway shutdowns, detours and access restrictions or as deemed necessary.
- Environmental Permits Issues and Commitments (EPIC) Sheets. The Engineer shall complete the latest version of the EPIC sheets per information provided by the State.

#### **RIGHT-OF-WAY FUNCTION CODE (130)**

- Utility Locations and Layouts. The Engineer shall coordinate with the State to determine the location of each existing and proposed utility and attend meetings with the various utility companies to discuss potential conflicts. The Engineer shall identify and coordinate with each utility company for relocations required within each construction easement or right-of entry. The Engineer shall gather existing utility information and furnish a DWG to identify utility conflicts.

#### **MANAGING CONTRACTED PE FUNCTION CODE (145)**

The Engineer, in association with the County's Project Manager shall be responsible for directing and coordinating all activities associated with the project to comply with State policies and procedures, and to deliver that work on time. The Engineer shall inform Ft Bend County's Project Manager of all meetings with the State and sub-consultants. The Engineer shall copy the County's Project Manager on all project related email correspondence.

The Engineer shall:

- Prepare monthly written progress reports.
- Develop and maintain a detailed project schedule to track project conformance to Work Schedule. The schedule submittals shall be hard copy and electronic format.
- Meet on a scheduled basis with the State and Ft Bend County 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.

#### **TOPOGRAPHIC SURVEYS FUNCTION CODE (150)**

- Design Surveys will be procured by adjacent design contracts. The Engineer will review the provided survey and notify the Program Manager if additional information

- is needed. The Engineer shall coordinate with the Geotechnical Engineer and Program Manager to ensure that boring locations are tied down by the surveyor.
- The Engineer shall also coordinate the preparation of a *Survey Control Index Sheet* and a *Horizontal and Vertical Control Sheet(s)*, signed, sealed and dated by the professional engineer in direct responsible charge of the surveying and the responsible RPLS for insertion into the plan set.

### **ROADWAY DESIGN FUNCTION CODE (160)**

The roadway design task shall include the following:

- Preliminary Geometric Project Layout. The Engineer shall develop a preliminary geometric project layout for the full length of the project to be reviewed and approved by the State prior to the Engineer proceeding with the 30% milestone submittal package.
- Plan and Profile sheets for main lane widening.
- Existing and proposed typical sections for proposed and existing roadway and structure.
- The Engineer shall develop an earthwork analysis to determine cut and fill quantities and provide final design cross sections at 100 feet intervals.
- The Engineer shall incorporate the pavement design developed by the State for this project. If the pavement design is not available, the State may request the Engineer to perform pavement design and submit to State for review and approval.

### **DRAINAGE DESIGN FUNCTION CODE (161)**

- Hydrologic Studies: The Engineer shall coordinate with Hydrology consultant to provide project design information necessary for drainage analysis and report.
- Drainage Plans: Drainage plans and details shall include:
  - Overall drainage area map.
  - Hydrologic Data Sheets
  - Hydraulic Data Sheets
  - Existing drainage area maps
  - Proposed drainage area maps
  - Storm sewer plan and profile sheets
  - Lateral profiles sheets
  - Subsurface drainage at retaining walls
  - Bridge deck drainage
  - Drainage quantity summaries

## **SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION FUNCTION CODE (162)**

- The Engineer shall prepare drawings, specifications, and details for all signs. The Engineer shall coordinate with the State for overall temporary, interim and final signing strategies and placement of signs outside contract limits. The Engineer shall:
- Prepare sign detail sheets for large guide signs showing dimensions, lettering, shields, borders, corner radii, etc., and shall provide a summary of large and small signs to be removed, relocated, or replaced.
- Designate the shields to be attached to guide signs.
- Illustrate and number the proposed signs on plan sheets.
- Select each sign foundation from State Standards.
- The Engineer shall detail both permanent and temporary pavement markings and channelization devices on plan sheets. The Engineer shall coordinate with the State for overall temporary, interim, and final pavement marking strategies.
- The Engineer shall provide elevations for Overhead Sign Bridges with sign panels showing the road cross section and pertinent elevations and minimum clearances. The Engineer shall specify TxDOT standards to be used for the construction of the truss, truss towers and foundations.

## **MISCELLANEOUS ROADWAY DESIGN FUNCTION CODE (163)**

The miscellaneous roadway design task shall include the following services:

- Retaining Walls: The Engineer shall provide layouts, elevations, quantity estimate, summary of quantities, typical cross sections and structural details of all retaining walls within the project.
- Traffic Control Plans: The Engineer shall prepare Traffic Control Plans (TCP) including TCP typical sections, for the project. Task will also include coordination with State in scheduling a Traffic Control Workshop and submittal of the TCP for approval by TCAT.
- Illumination: The Engineer shall prepare design for underpass lighting as required for the project.
- Storm Water Pollution Prevention Plans (SW3P): The Engineer shall develop SW3P to minimize potential impact to receiving waterways. The SW3P must include text describing the plan, quantities, type, phase and locations of erosion control devices and any required permanent erosion control.
- Computation and Tabulation of Quantities: The Engineer shall compute quantities provide the summaries and quantities within all formal submittals.
- Miscellaneous Structural Details: The Engineer shall provide necessary details required to supplement standard details.
- Estimate: The Engineer shall independently develop and report quantities necessary to construct the contract in standard State bid format at the specified milestones and Final PS&E submittals.
- Contract time determination: The Engineer shall prepare a detailed contract time estimate to determine the approximate time required for construction of the project

in calendar and working days (based on the State standard definitions of calendar and working days) at the 95% and Final PS&E milestone.

- Specifications and General Notes: The Engineer shall identify necessary standard specifications, special specifications, special provisions and the appropriate reference items.

### **BRIDGE DESIGN FUNCTION CODE (170)**

The Engineer shall prepare bridge layouts for the bridge widening.

The Engineer shall prepare all work in accordance with the latest version of applicable State's procedures, specifications, manuals, guidelines, standard drawings, and standard specifications or previously approved special provisions and special specifications, which include: the *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 State manuals, the Engineer shall notify the State and refer to the American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Street*, (latest Edition). In addition, the Engineer shall follow the State's District guidelines in developing the Plan, Specification, and Estimate (PS&E) package. The Engineer shall prepare a single PS&E package in a form suitable for letting through the State's construction contract bidding and awarding process.

The estimated cost for the preparation of plans, specifications and estimate for the project is approximately \$611,795.50 which includes \$112,382.00 for geotechnical investigations. An additional amount of \$56,846.00 is proposed as an allowance for increased costs of geotechnical investigations, if drilled shaft wall is decided as the feasible option for the retaining wall. It is anticipated that the design effort will take approximately 12 months.

We very much appreciate the confidence of Fort Bend County in allowing us to execute this critically important project for Precinct 1 and are ready to meet and discuss any comments at your convenience.

Very truly yours,



Costas Georghiou, PE  
Principal

# NORTHBOUND GRAND PARKWAY WIDENING OVER CINCO RANCH BOULEVARD

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR STRUCTURAL ENGINEER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
<b>FEASIBILITY STUDIES - FC 102 (110)</b>												
<b>ROUTE &amp; DESIGN STUDIES</b>												
DATA COLLECTION & FIELD RECONNAISSANCE												
REVIEW AS-BUILT PLANS, BRINSAP	2		6							8	N/A	N/A
OBTAIN / REVIEW AVAILABLE UTILITY PLANS	1		2		4					7	N/A	N/A
SITE VISITS; PHOTOS, VIDEO, FIELD NOTES, VERIFICATION	3	3	6		0					12	N/A	N/A
EVALUATION OF COMPLETED SOIL BORINGS	1	2	2							5	N/A	N/A
ROADWAY AND HYDRAULIC DESIGN CRITERIA	2		2							4	N/A	N/A
PRELIMINARY CONSTRUCTION COST ESTIMATE	2		4		6					12	N/A	N/A
DESIGN SUMMARY REPORT	3		8							11	N/A	N/A
PREPARE/ATTEND/DOCUMENT DESIGN CONCEPT CONFERENCE	4		12							16	N/A	N/A
DESIGN EXCEPTIONS/WAIVERS	2		8							10	N/A	N/A
HOURS SUB-TOTALS	20	5	50	0	10	0	0	0	0	85		
CONTRACT RATE PER HOUR	\$330.00	\$261.00	\$200.00	\$153.00	\$132.00	\$114.00	\$130.00	\$105.00	\$90.00			
TOTAL LABOR COSTS	\$6,600.00	\$1,305.00	\$10,000.00	\$0.00	\$1,320.00	\$0.00	\$0.00	\$0.00	\$0.00	\$19,225.00		
% DISTRIBUTION OF STAFFING	23.5%	5.9%	58.8%	0.0%	11.8%	0.0%	0.0%	0.0%	0.0%			
<b>SUBTOTAL - FC 102 (110)</b>										<b>\$19,225.00</b>		

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR STRUCTURAL ENGINEER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
MANAGING CONTRACTED/DONATED PE -FC 145 (164)												
MANAGING CONTRACTED PER SERVICES & SURVEY CONTRACTS												
PROJECT MANAGEMENT / COORDINATION / MEETINGS WITH CLIENT	64	12	48							124	N/A	N/A
COORDINATE WITH ADJACENT CONSULTANTS	20		24							44		
COORDINATE WITH GEOTECH SUBCONSULTANTS	10	8	8							26	N/A	N/A
DESIGN SCHEDULE	2		4							6	N/A	N/A
MONTHLY PROGRESS REPORT / INVOICES (18 Reports)	27		18							45	N/A	N/A
HOURS SUB-TOTALS	123	20	102	0	0	0	0	0	0	245		
CONTRACT RATE PER HOUR	\$330.00	\$261.00	\$200.00	\$153.00	\$132.00	\$114.00	\$130.00	\$105.00	\$90.00			
TOTAL LABOR COSTS	\$40,590.00	\$5,220.00	\$20,400.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$66,210.00		
% DISTRIBUTION OF STAFFING	50.20%	8.16%	41.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
SUBTOTAL - FC 145 (164)										\$66,210.00		

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR STRUCTURAL ENGINEER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
ROADWAY DESIGN - FC 160 (160)												
ROADWAY DESIGN CONTROLS												
ROADWAY DESIGN												
REVIEW AND INCORPORATE SURVEY SHEETS INTO PS&E	2		4							6		N/A

# NORTHBOUND GRAND PARKWAY WIDENING OVER CINCO RANCH BOULEVARD

TITLE SHEET	1		4				4			9	1	9
INDEX SHEET			2				4			6	1	6
HORIZONTAL ALIGNMENT DATA SHEET	1		4				4			9	1	9
PROPOSED TYPICAL SECTIONS (MAIN LANES)	1		4				4			9	1	9
EXISTING TYPICAL SECTIONS	1		2	4			2			9	1	9
PROJECT LAYOUTS (SCALE: H 1"=400')			2	2						4	1	4
PLAN AND PROFILE MAIN LANES NORTHBOUND	4		16	16			24			60	3	20
SUPERELEVATION EVALUATION	2		6	4						12	1	N/A
MISCELLANEOUS ROADWAY DETAILS	4		16	4			16			40	2	20
DEMOLITION PLANS	1		4				8			13	1	13
ROADWAY STANDARDS			2		2					4	5	1
GEOPAK CROSS SECTIONS GRAND PARKWAY (ORD)	1		24	100						125		N/A
QA/QC (30%, 60%, 90%, 95%, 100%) (ROADWAY)	20		0							20	N/A	N/A
PLAN PREPARATION (30%,60%,90%,95%,100%)	10		20	0			20			50	N/A	N/A
HOURS SUB-TOTALS	48	0	110	130	2	0	86	0	0	376	18	
CONTRACT RATE PER HOUR	\$330.00	\$261.00	\$200.00	\$153.00	\$132.00	\$114.00	\$130.00	\$105.00	\$90.00			
TOTAL LABOR COSTS	\$15,840.00	\$0.00	\$22,000.00	\$19,890.00	\$264.00	\$0.00	\$11,180.00	\$0.00	\$0.00	\$69,174.00		
% DISTRIBUTION OF STAFFING	12.77%	0.00%	29.26%	34.57%	0.53%	0.00%	22.87%	0.00%	0.00%			
<b>SUBTOTAL - FC 160 (160)</b>										<b>\$69,174.00</b>		

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NORTHBOUND GRAND PARKWAY WIDENING  
OVER CINCO RANCH BOULEVARD

ROADWAY DESIGN - FC 160 (162)												
SIGNING, PVMT. MARKING, & SIGNAL												
SIGNING AND PAVEMENT MARKINGS LAYOUTS	2		8				12			22	1	22
SIGN AND PAVEMENT MARKINGS STANDARDS			2				6			8	10	1
GUIDE SIGN PANEL DESIGN	1		6				8			15	2	8
GUIDE SIGN STRUCTURE ELEVATION	2		8		12		12			34	1	34
SIGN SUMMARY SHEETS	1		2				6			9	1	9
PAVEMENT MARKINGS SUMMARY SHEET	1		4				12			17	1	17
HOURS SUB-TOTALS	7	0	30	0	12	0	56	0	0	105	0	
CONTRACT RATE PER HOUR	\$330.00	\$261.00	\$200.00	\$153.00	\$132.00	\$114.00	\$130.00	\$105.00	\$90.00			
TOTAL LABOR COSTS	\$2,310.00	\$0.00	\$6,000.00	\$0.00	\$1,584.00	\$0.00	\$7,280.00	\$0.00	\$0.00	\$17,174.00		
% DISTRIBUTION OF STAFFING	6.67%	0.00%	28.57%	0.00%	11.43%	0.00%	53.33%	0.00%	0.00%			
SUBTOTAL - FC 160 (162)										\$17,174.00		

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR STRUCTURAL ENGINEER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
ROADWAY DESIGN - FC 160 (163)												
MISCELLANEOUS (ROADWAY)												
RETAINING WALLS:												
RETAINING WALL ALIGNMENT DATA	1		16	12			6			35	1	35
RETAINING WALL PLAN & PROFILE (1" = 40')	2	18		40			36			96	3	32
RETAINING WALL DESIGN DATA SHEET	1	8		8			4			21	1	21
RETAINING WALL DETAILS	1	4		12			24			41	2	21
RETAINING WALL STANDARDS		1		4			8			13	5	3
UTILITY COORDINATION & ENGINEERING												
UTILITY COORDINATION	12		24				8			44	N/A	
PUBLIC AND INDIVIDUAL MEETINGS WITH UTILITY COMPANIES (UP TO 4 MEETINGS)	8		12				16			36	N/A	
REVIEW OF UTILITY'S PROPOSED ADJUSTMENTS	4		4							8	N/A	
ILLUMINATION												
UNDERPASS ILLUMINATION LAYOUT	2		8	8						18	1	18
ILLUMINATION DETAILS	1		5	5			5			16	1	16
CIRCUIT DIAGRAMS	1		4	24			12			41	2	21
ILLUMINATION STANDARDS			3	5		5				13	4	3
STORM WATER POLLUTION PREVENTION PLAN (SWP3)												
EPIC SHEETS	1		4	16			8			29	2	15
SWP3 INDEX			2		4					6	1	6
SWP3 LAYOUTS (SCALE: H 1"=100')	2		8				24			34	2	17
MISCELLANEOUS SWP3 DETAILS			4				4			8	1	8
SWP3 STANDARDS			4				4			8	4	2
SWP3 SUMMARY SHEETS (Sheet set-up only)			1				4			5	1	5
TRAFFIC CONTROL PLAN, DETOURS & SEQUENCE OF CONSTRUCTION:												
ADVANCE SIGNS	0		2	8		4				14	2	7
NARRATIVE	1		2	6						9	1	9

NORTHBOUND GRAND PARKWAY WIDENING  
OVER CINCO RANCH BOULEVARD

TYPICAL SECTIONS	1		2	4		4				11	1	11
TCP LAYOUTS (1"=100')	6		24	48		48				126	6	21
DETOUR PLANS	2		4	12		8				26	2	13
MISCELLANEOUS TCP DETAILS	1		2	4		4				11	2	6
TCP STANDARDS	1		2	2						5	10	1
TRAFFIC CONTROL WORKSHOP										0		
TCP ROLL PLOTS BY PHASE			2			2				4	N/A	N/A
PREPARE/ATTEND/DOCUMENT TCP WORKSHOP MTG	4		8	8						20	N/A	N/A
QUANTITIES, SPECIFICATIONS & ESTIMATE:												
COMPUTE & TABULATE ROADWAY QUANTITIES (30, 60, 90, 95, Final)	4		8			16				28	N/A	N/A
COMPUTE & TABULATE EARTHWORK QUANTITIES (30, 60, 90, 95, Final)	0		4	6						10	N/A	N/A
COMPUTE & TABULATE DEMOLITION QUANTITIES (30, 60, 90, 95, Final)	1		2			6				9		
COMPUTE & TABULATE TCP QUANTITIES (30, 60, 90, 95, Final)	1		3			12				16		
COMPUTE & TABULATE RETAINING WALL QUANTITIES (30, 60, 90, 95, Final)	1	4	4	4						13		
COMPUTE & TABULATE STORM SEWER QUANTITIES (30, 60, 90, 95, Final)	0		2	4						6	N/A	N/A
COMPUTE & TABULATE EROSION CONTROL QUANTITIES (60, 90, 95, Final)	1		2			4				7		
PREPARE GENERAL NOTES	2		20			4				26	N/A	N/A
PREPARE SPECIAL SPECIFICATIONS AND PROVISIONS	4		20							24	N/A	N/A
CONSTRUCTION TIME DETERMINATION (PRIMAVERA) (95%, FINAL)	2		8							10	N/A	N/A
CONSTRUCTION COST EST. (30, 60, 90, 95 & FINAL) WITH VARIANCE REPORT	4		8		16					28	N/A	N/A
ENTER ESTIMATE INTO TxDOT CONNECT (95%, FINAL)			8							8		
QA/QC (30%, 60%, 90%, 95%, FINAL) (FOR FC 163 ITEMS)	30									30	N/A	N/A
HOURS SUB-TOTALS	102	35	236	240	20	117	163	0	0	913	24	
CONTRACT RATE PER HOUR	\$330.00	\$261.00	\$200.00	\$153.00	\$132.00	\$114.00	\$130.00	\$105.00	\$90.00			
TOTAL LABOR COSTS	\$33,660.00	\$9,135.00	\$47,200.00	\$36,720.00	\$2,640.00	\$13,338.00	\$21,190.00	\$0.00	\$0.00	\$163,883.00		
% DISTRIBUTION OF STAFFING	11.17%	3.83%	25.85%	26.29%	2.19%	12.81%	17.85%	0.00%	0.00%			
SUBTOTAL - FC 160 (163)										\$163,883.00		

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR STRUCTURAL ENGINEER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
BRIDGE DESIGN - FC 160 (170)												
BRIDGE DESIGN												
Mainlane Bridg NB over Cinco Ranch												
Layout	2	12		24			40			78	2	39
Bridge Details	16	60		144			200			420	12	35
Foundation		4		32			24			60	1	60
Quantities		4		16			4			24	1	24
QC (60%, 90%, Final)	8	20		4			6			38		N/A
HOURS SUB-TOTALS	26	100	0	220	0	0	274	0	0	620	16	
CONTRACT RATE PER HOUR	\$330.00	\$261.00	\$200.00	\$153.00	\$132.00	\$114.00	\$130.00	\$105.00	\$90.00			
TOTAL LABOR COSTS	\$8,580.00	\$26,100.00	\$0.00	\$33,660.00	\$0.00	\$0.00	\$35,620.00	\$0.00	\$0.00	\$103,960.00		
% DISTRIBUTION OF STAFFING	4.19%	16.13%	0.00%	35.48%	0.00%	0.00%	44.19%	0.00%	0.00%			

NORTHBOUND GRAND PARKWAY WIDENING  
OVER CINCO RANCH BOULEVARD

SUBTOTAL - FC 160 (170)										\$103,960.00	

DESCRIPTION									TOTAL MH BY FC	TOTAL COSTS BY FC
FEASIBILITY STUDIES - FC 102 (110)									85	\$19,225.00
MANAGING CONTRACTED/DONATED PE - FC 145 (164)									245	\$66,210.00
ROADWAY DESIGN - FC 160 (160)									376	\$69,174.00
ROADWAY DESIGN - FC 160 (161)									300	\$56,672.00
ROADWAY DESIGN - FC 160 (162)									105	\$17,174.00
ROADWAY DESIGN - FC 160 (163)									913	\$163,883.00
ROADWAY DESIGN - FC 160 (170)									620	\$103,960.00
SUBTOTAL LABOR EXPENSES									2,644	\$496,298.00
OTHER DIRECT EXPENSES	QUANTITY	RATE	UNIT							
Photocopies/Printing B/W (11"X17")	3,000	\$0.20	EACH							\$600.00
Photocopies/Printing B/W (8 1/2"X11")	1,000	\$0.10	EACH							\$100.00
Photocopies Color (11"X17")	0	\$0.74	EACH							\$0.00
Photocopies Color (8 1/2"X11")	0	\$0.40	EACH							\$0.00
Plots (B/W on Bond)	200	\$0.50	SF							\$100.00
Plots (Color on Bond)	200	\$1.50	SF							\$300.00
CD's	0	\$1.00	EACH							\$0.00
Standard Postage	0	\$0.47	LETTER							\$0.00
Overnight Mail - letter size	10	\$22.95	EACH							\$229.50
Overnight Mail - oversized box	10	\$30.00	EACH							\$300.00
Courier Services	10	\$30.00	EACH							\$300.00
Mileage - to be paid at current IRS rate	1,200	\$0.66	MILE							\$786.00
Toll Charges	200	\$2.00	EACH							\$400.00
SUBTOTAL DIRECT EXPENSES										\$3,115.50
SUBCONTRACTS:										
ROADWAY DESIGN - FC 160 (150 - SURVEYING)										\$0.00
FEASIBILITY STUDIES - FC 102 (110 - GEOTECH DESIGN )										\$112,382.00
OTHER PROVIDERS - FC 160 (161, 162, 163)										
SUBCONTRACT SUB-TOTAL										\$112,382.00

SUMMARY	
TOTAL COSTS FOR PRIME ONLY	\$496,298.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR PRIME ONLY	\$3,115.50
SUBCONTRACTS (includes labor costs and direct expenses)	\$112,382.00
GRAND TOTAL	\$611,795.50



# **GEOTEST ENGINEERING, INC.**

*Geotechnical Engineers & Materials Testing*

5600 Bintliff Drive

Houston, Texas 77036

Telephone: (713) 266-0588

Fax: (713) 266-2977

**Proposal No. 1140642299**

November 28, 2023

Mr. Costas Georghiou, P. E.  
Principal  
PGAL  
3131 Briarpark Drive; Suite 200  
Houston, TX 77042

**Reference: Proposal for Geotechnical Investigation  
SH 99 Northbound Main Lanes widening over Cinco Ranch Blvd  
Fort Bend County, Texas**

Dear Mr. Georghiou:

In accordance with your request, Geotest Engineering, Inc. (Geotest) is pleased to present this revised proposal for the geotechnical investigation for the proposed SH 99 Northbound Main Lanes widening over Cinco Ranch Boulevard in Fort Bend County, Texas. The proposed improvements include approximately widening of the outside northbound main lane bridge over Cinco Ranch and two retaining walls at the edge of the main lanes spanning approximately 2,327 linear feet. In addition, there is an overhead guide sign (Bay Hill Blvd and Highland Knolls Dr Exit sign) that will need to be relocated. Based on the available information, the inside lanes of the SH99 northbound and southbound main lane bridges at Cinco Ranch Blvd are under construction as part of a different project.

Based on the information provided by PGAL, all the borings will be performed per TxDOT criteria.

## Purpose and Scope

The purposes of this study are to perform a geotechnical investigation and develop geotechnical recommendations for the proposed improvements.

The scope of services is based on the information provided to us by your e-mail on October 13, 2023, and consists of the following:

- Drill and sample a total of ten (10) soil borings to depths ranging from 35 to 100 feet in accordance with TxDOT criteria. The details of boring program

are given below and also shown on attached plan of borings, presented on Figure 1:

- Two (2) soil borings each to a depth of 100 feet for the proposed main lane bridge widening (although the span of subject bridge is about 390 feet, the current scope is only proposing 2 bridge boreholes, considering the previous geotechnical boreholes performed for the bridge inside lanes);
- Two (2) soil borings, each to a depth of 55 feet, two (2) soil borings each to a depth of 50 feet, two (2) soil borings each to a depth of 45 feet, one (1) soil boring to a depth of 35 feet, for proposed retaining wall along the east side of proposed northbound main lane widening;
- One (1) soil boring to a depth of 50 feet for proposed overhead guide sign relocation.

Texas Cone Penetration (TCP) tests will be performed on every 5-foot interval for all borings. It is assumed that the proposed borings will be located and tied in by you or your surveyor.

- Perform laboratory tests on representative soil samples to evaluate the engineering properties of the soils.
- Perform engineering analyses to develop geotechnical recommendations for the proposed bridge, retaining wall, and overhead guide sign structure.
- Submit a geotechnical report containing a plan showing the locations of the borings, Wincore logs and recommendations as outlined above.

### Schedule and Fees

We should be able to start field work within one (1) week after receiving your written authorization or one (1) week after receiving the TxDOT Right-of-Way (ROW), whichever is latest. The field work will be complete in about three (3) weeks, barring bad weather. The laboratory tests will be completed in about eight (8) weeks. The geotechnical report, which will include field and laboratory data and design recommendations, will be submitted in about fourteen (14) weeks after completion of field work.

Based on the scope of work outlined above, the cost of the field investigation, laboratory testing, engineering analyses, and a geotechnical report will not exceed a cost of \$112,382.00. The cost breakdown is provided in Attachment No. 1.

We appreciate the opportunity to submit this proposal. Formal authorization is required for our services. This may be provided by signing in the space provided below and returning one copy for our files.

Very truly yours,  
**GEOTEST ENGINEERING, INC.**

B.C. 

Mohan Ballagere, P.E.  
Vice President

MB\ego

Copies Submitted: (1)

Enclosures:

Proposed Plan of Borings – Figure 1  
Attachment No. 1 – Cost Breakdown

PC38\Geotechnical\Proposals\40642299R.DOC

ACCEPTED BY: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

Geotechnical Investigation  
 SH 99 Northbound Main Lane  
 Widening over Cinco Ranch Blvd  
 Fort Bend County, Texas




Proposal No. 1140642299

**Attachment No. 1  
 COST BREAKDOWN**

	<u>QUANTITY</u>	<u>UNIT RATE</u>	<u>COST</u>
<b>Engineering Services</b>			
Senior Engineer	10 hrs.	\$250.00	\$2,500.00
Support Manager	20 hrs.	\$205.00	\$4,100.00
Project Engineer	30 hrs.	\$165.00	\$4,950.00
Engineer-In-Training II	84 hrs.	\$115.00	\$9,660.00
Administrative/Clerical	12 hrs.	\$70.00	\$840.00
		Subtotal	<b>\$22,050.00</b>
<b>Subsurface Field Investigation</b>			
Mobilization/Demobilization of Truck Mounted Drill Rig and Crew	1 ea.	\$950.00	\$950.00
Soil Boring/Rock Coring with TCP ( < 60 ft.)	505 ft.	\$45.00	\$22,725.00
Soil Boring/Rock Coring with TCP ( 60 - 120 ft.)	80 ft.	\$54.00	\$4,320.00
Grouting of Completed Bore Holes	585 ft.	\$12.00	\$7,020.00
Traffic Control (Medium Project)	10 ea.	\$2,650.00	\$26,500.00
Utility Clearance for Boring Locations, Logging and and Field Coordination	89 hrs.	\$90.00	\$8,010.00
		Subtotal	<b>\$69,525.00</b>
<b>Laboratory Tests</b>			
Liquid and Plastic Limits	59 ea.	\$71.00	\$4,189.00
Moisture Content	215 ea.	\$11.00	\$2,365.00
Percent Passing No. 200 Sieve	59 ea.	\$55.00	\$3,245.00
Sieve Analysis through No. 200 Sieve	14 ea.	\$65.00	\$910.00
Sieve Analysis with Hydrometer	6 ea.	\$145.00	\$870.00
Unconfined Compressive Strength of Soil	36 ea.	\$51.00	\$1,836.00
Unconsolidated-Undrained Triaxial Compression	24 ea.	\$72.00	\$1,728.00
One Dimensional Consolidation Properties of Soil	2 ea.	\$798.00	\$1,596.00
Consolidated Undrained Triaxial tests	2 ea.	\$1,900.00	\$3,800.00
Specific Gravity	4 ea.	\$67.00	\$268.00
		Subtotal	<b>\$20,807.00</b>
		<b>Total</b>	<b>\$112,382.00</b>

GEI 1140642299

### Legend

-  50' Sign Structure Boring
-  100' Bridge Boring
-  35' to 55' Retaining Wall Boring



Google Earth

PROPOSED PLAN OF BORINGS

FIGURE 1



# **GEOTEST ENGINEERING, INC.**

*Geotechnical Engineers & Materials Testing*

5600 Bintliff Drive

Houston, Texas 77036

Telephone: (713) 266-0588

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**Proposal No. 1140642299**

**ADDITIONAL**

November 28, 2023

Mr. Costas Georghiou, P. E.  
Principal  
PGAL  
3131 Briarpark Drive; Suite 200  
Houston, TX 77042

**Reference: Additional Proposal for Drill Shaft Wall Geotechnical Investigation  
SH 99 Northbound Main Lanes widening over Cinco Ranch Blvd  
Fort Bend County, Texas**

Dear Mr. Georghiou:

In accordance with your request, Geotest Engineering, Inc. (Geotest) is pleased to present this revised additional proposal for drill shaft wall (as an optional) in addition to the original proposal submitted to you on October 16, 2023 for the geotechnical investigation for the proposed SH 99 Northbound Main Lanes widening over Cinco Ranch Boulevard in Fort Bend County, Texas. The proposed improvements are presented as part of the Original Proposal No. 1140642299 dated October 16, 2023 and this additional proposal will include scope covering the drilled shaft wall alternative to the originally intended soil nail wall. Based on the provided information, it is our understanding that PGAL is considering drilled shaft wall alternative in case we encounter any weak soils along existing embankment adjacent to the subject bridge. Please note that this scope should be authorized in addition to the original proposal to cover the proposed drilled shaft wall alternative.

Based on the information provided by PGAL, all the borings will be performed per TxDOT criteria.

## Purpose and Scope

The purposes of this study are to perform a geotechnical investigation and develop geotechnical recommendations for the proposed drilled shaft wall.

The additional scope of services is based on the information provided to us by your e-mail on October 13, 2023, and our conversation on October 26, 2023, and consists of the following:

- Deepen the previously proposed seven (7) soil nail wall/retaining wall boreholes with depths ranging from 35 to 55 feet, to 80 feet each. Texas Cone Penetration (TCP) tests will be performed on every 5-foot interval for all borings. It is assumed that the proposed borings will be located and tied in by you or your surveyor.
- Perform laboratory tests on representative soil samples to evaluate the engineering properties of the soils.
- Perform engineering analyses to develop geotechnical recommendations for the proposed drilled shaft wall.
- Submit a geotechnical report containing a plan showing the locations of the borings, Wincore logs and recommendations as outlined in the original proposal including the drilled shaft wall recommendations.

#### Schedule and Fees

We should be able to start field work within one (1) week after receiving your written authorization or one (1) week after receiving the TxDOT Right-of-Way (ROW), whichever is latest. The field work will be completed in about one (1) week, barring bad weather. The laboratory tests will be completed in about four (4) weeks. The design recommendations for drill shaft wall will be included as part of the original geotechnical report (above 14 weeks after completing field work) for SH 99 northbound main lanes widening over Cinco Ranch.

Based on the scope of additional work outlined above, the cost of the field investigation, laboratory testing, engineering analyses, and amending original geotechnical report will be a not to exceed a cost of \$56,846.00. The cost breakdown is provided in Attachment No. 1.

We appreciate the opportunity to submit this proposal. Formal authorization is required for our services. This may be provided by signing in the space provided below and returning one copy for our files.

Very truly yours,  
**GEOTEST ENGINEERING, INC.**

B.C. 

Mohan Ballagere, P.E.  
Vice President

MB\ego  
Copies Submitted: (1)  
Enclosures: Attachment No. 1 – Cost Breakdown  
PC38\Geotechnical\Proposals\40642299\_Additional\_R.DOC

ACCEPTED BY: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

Geotechnical Investigation  
 SH 99 Northbound Main Lane  
 Widening over Cinco Ranch Blvd  
 Fort Bend County, Texas

Proposal No. 1140642299  
 ADDITIONAL

### Attachment No. 1 COST BREAKDOWN

	<u>QUANTITY</u>	<u>UNIT RATE</u>	<u>COST</u>
<b>Engineering Services</b>			
Senior Engineer	2 hrs.	\$250.00	\$500.00
Support Manager	4 hrs.	\$205.00	\$820.00
Project Engineer	6 hrs.	\$165.00	\$990.00
Engineer-In-Training II	48 hrs.	\$115.00	\$5,520.00
Administrative/Clerical	4 hrs.	\$70.00	\$280.00
		Subtotal	<b>\$8,110.00</b>
<b>Subsurface Field Investigation</b>			
Mobilization/Demobilization of Truck Mounted Drill Rig and Crew	1 ea.	\$950.00	\$950.00
Soil Boring/Rock Coring with TCP ( < 60 ft.)	85 ft.	\$45.00	\$3,825.00
Soil Boring/Rock Coring with TCP ( 60 - 120 ft.)	140 ft.	\$54.00	\$7,560.00
Auguring to previous drilled borehole depths	335 ft.	\$14.00	\$4,690.00
Grouting of Completed Bore Holes	560 ft.	\$12.00	\$6,720.00
Traffic Control (Medium Project)	6 ea.	\$2,650.00	\$15,900.00
Utility Clearance for Boring Locations, Logging and and Field Coordination	34 hrs.	\$90.00	\$3,060.00
		Subtotal	<b>\$42,705.00</b>
<b>Laboratory Tests</b>			
Liquid and Plastic Limits	23 ea.	\$71.00	\$1,633.00
Moisture Content	86 ea.	\$11.00	\$946.00
Percent Passing No. 200 Sieve	23 ea.	\$55.00	\$1,265.00
Sieve Analysis through No. 200 Sieve	6 ea.	\$65.00	\$390.00
Sieve Analysis with Hydrometer	3 ea.	\$145.00	\$435.00
Unconfined Compressive Strength of Soil	14 ea.	\$51.00	\$714.00
Unconsolidated-Undrained Triaxial Compression	9 ea.	\$72.00	\$648.00
		Subtotal	<b>\$6,031.00</b>
		<b>Total</b>	<b>\$56,846.00</b>