STATE OF TEXAS

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**COUNTY OF FORT BEND** 

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#### AGREEMENT FOR PROFESSIONAL GEOTECHNICAL EVALUATION

THIS AGREEMENT is made and entered into by and between Fort Bend County Drainage District, (hereinafter "District"), a body corporate and politic under the laws of the State of Texas, and Tulonay-Wong Engineers, Inc. (hereinafter "Consultant"), a company authorized to conduct business in the State of Texas.

#### WITNESSETH

WHEREAS, District desires to engage Consultant to conduct a geotechnical evaluation for the proposed stabilization of Ditch H from the Brazos River to US 90A in Sugar Land, Texas, (hereinafter "Services"); and

WHEREAS, District has determined Consultant is the most highly qualified provider of the desired Services on the basis of demonstrated competence and qualifications, and District and Consultant have negotiated to reach a fair and reasonable amount of compensation for the provision of such Services, as required under Chapter 2254 of the Texas Government Code; and

WHEREAS, Consultant represents that it is qualified and desires to perform such services.

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

#### **AGREEMENT**

# **Section 1. Scope of Services**

Consultant shall render Services to District as defined in Consultant's Proposal dated April 25, 2022, (attached hereto as Exhibit A).

#### Section 2. Personnel

- 2.1 Consultant represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Services required under this Agreement and that Consultant shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of District, to perform the Scope of Services when and as required and without delays.
- 2.2 All employees of Consultant shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Consultant who, in the opinion of District, is incompetent or by his conduct becomes detrimental to the project shall, upon request of District, immediately be removed from association with the project.

#### Section 3. Compensation and Payment

- 3.1 Consultant's fees shall be calculated at the rates set forth in the attached Exhibit A. The Maximum Compensation for the performance of Services within the Proposal described in Exhibit A is a fee in the amount of fifty-eight thousand nine hundred dollars and no/100 (\$58,900.00). In no case shall the amount paid by District under this Agreement exceed the Maximum Compensation without written amendment executed by the parties.
- 3.2 All performance of the Scope of Services by Consultant including any changes in the Scope of Services and revision of work satisfactorily performed will be performed only when approved in advance and authorized by District.
- 3.3 District will pay Consultant based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Consultant shall submit to District staff designated by the Chief Engineer, one (1) electronic (pdf) and/or one (1) original invoice showing the amounts due for services performed in a form acceptable to District. District shall review such invoices and approve them within thirty (30) calendar days with such modifications as are consistent with this Agreement and forward same to the Fort Bend County Auditor for processing. District shall pay each such approved invoice within thirty (30) calendar days. District reserves the right to withhold payment pending verification of satisfactory work performed.

# Section 4. Limit of Appropriation

- 4.1 Consultant clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that District shall have available the total maximum sum of fifty-eight thousand nine hundred dollars and no/100 (\$58,900.00), specifically allocated to fully discharge any and all liabilities District may incur.
- 4.2 Consultant does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Consultant may become entitled to and the total maximum sum that District may become liable to pay to Consultant shall not under any conditions, circumstances, or interpretations thereof exceed fifty-eight thousand nine hundred dollars and no/100 (\$58,900.00).

#### **Section 5. Time of Performance**

The time for performance of the Scope of Services by Consultant shall begin with receipt of the Notice to Proceed from District and end no later than six (6) months thereafter. Consultant shall complete the tasks described in the Scope of Services within this time or within such additional time as may be extended by the District.

#### **Section 6. Modifications and Waivers**

6.1 The parties may not amend or waive this Agreement, except by a written agreement executed by both parties.

- 6.2 No failure or delay in exercising any right or remedy or requiring the satisfaction of any condition under this Agreement, and no course of dealing between the parties, operates as a waiver or estoppel of any right, remedy, or condition.
- 6.3 The rights and remedies of the parties set forth in this Agreement are not exclusive of, but are cumulative to, any rights or remedies now or subsequently existing at law, in equity, or by statute.

# Section 7. Termination

7.1 Termination for Convenience – District may terminate this Agreement at any time upon thirty (30) days written notice.

#### 7.2 Termination for Default

- 7.2.1 District may terminate the whole or any part of this Agreement for cause in the following circumstances:
- 7.2.1.1 If Consultant fails to perform services within the time specified in the Scope of Services or any extension thereof granted by the District in writing;
- 7.2.1.2 If Consultant materially breaches any of the covenants or terms and conditions set forth in this Agreement or fails to perform any of the other provisions of this Agreement or so fails to make progress as to endanger performance of this Agreement in accordance with its terms, and in any of these circumstances does not cure such breach or failure to District's reasonable satisfaction within a period of ten (10) calendar days after receipt of notice from District specifying such breach or failure.
- 7.2.2 If, after termination, it is determined for any reason whatsoever that Consultant was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the District in accordance with Section 7.1 above.
- 7.3 Upon termination of this Agreement, District shall compensate Consultant in accordance with Section 3, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to District. Consultant's final invoice for said services will be presented to and paid by District in the same manner set forth in Section 3 above.
- 7.4 If District terminates this Agreement as provided in this Section, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Consultant.

# Section 8. Ownership and Reuse of Documents

All documents, data, reports, research, graphic presentation materials, etc., developed by Consultant as a part of its work under this Agreement, shall become the property of District upon completion of this Agreement, or in the event of termination or cancellation thereof, at the time

of payment under Section 3 for work performed. Consultant shall promptly furnish all such data and material to District on request. If the District modifies and/or uses the documents for any reason other than their intended use, without Consultant's authorization, the Consultant shall be released from any liability as a result of such action.

#### Section 9. Inspection of Books and Records

Consultant will permit District, or any duly authorized agent of District, to inspect and examine the books and records of Consultant for the purpose of verifying the amount of work performed under the Scope of Services. District's right to inspect survives the termination of this Agreement for a period of four years.

# Section 10. <u>Insurance</u>

- 10.1 Prior to commencement of the Services, Consultant shall furnish District 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 District. Consultant shall provide certified copies of insurance endorsements and/or policies if requested by District. Consultant 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. Consultant shall obtain such insurance written on an Occurrence form (or a Claims Made form for Professional Liability Insurance) 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:
- 10.1.1 Workers' Compensation insurance. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
- 10.1.2. 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.
- 10.1.3 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.
- 10.1.4 Business Automobile Liability insurance with a combined Bodily Injury/Property Damage limit of not less than \$1,000,000 each accident. The policy shall cover liability arising from the operation of licensed vehicles by policyholder.
- 10.1.5 Professional Liability insurance may be on a Claims Made form with limits not less than \$1,000,000.
- 10.2 District and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability. All Liability policies including Workers' Compensation written on behalf of Consultant shall contain a waiver of subrogation in favor of District and members of Commissioners Court. For

Commercial General Liability, the District shall be named as an Additional Insured on a Primary & Non-Contributory basis.

10.3 If required coverage is written on a claims-made basis, Consultant 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 that work under the Agreement is completed.

#### Section 11. Indemnity

CONSULTANT SHALL INDEMNIFY DISTRICT AGAINST ALL LOSSES, LIABILITIES, CLAIMS, CAUSES OF ACTION, AND OTHER EXPENSES, INCLUDING REASONABLE ATTORNEYS FEES, ARISING FROM ACTIVITIES OF CONSULTANT, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENT ACT, ERROR, OR OMISSION OF CONSULTANT OR ANY OF CONSULTANT'S AGENTS, SERVANTS OR EMPLOYEES.

# Section 12. Confidential and Proprietary Information

- of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to District. Any and all information of any form obtained by Consultant or its employees or agents from District in the performance of this Agreement shall be deemed to be confidential information of District ("Confidential Information"). Any reports or other documents or items (including software) that result from the use of the Confidential Information by Consultant 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 Consultant) publicly known or is contained in a publicly available document; (b) is rightfully in Consultant'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 Consultant who can be shown to have had no access to the Confidential Information.
- at least the same degree of care that Consultant uses in maintaining the confidence, using at least the same degree of care that Consultant 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 District hereunder, unless disclosure is required by law or court order, and to advise each of its employees and agents of their obligations to keep Confidential Information confidential. Consultant shall use its best efforts to assist District in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Consultant shall advise District immediately in the event Consultant 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 Consultant will at its expense cooperate with District in seeking injunctive or other equitable relief in the name of District or

Consultant against any such person. Consultant agrees that, except as directed by District, Consultant 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 District's request, Consultant will promptly turn over to District all documents, papers, and other matter in Consultant's possession which embody Confidential Information; provided however, that Consultant may retain one (1) copy of all work produced which incorporates Confidential Information for internal record-keeping purposes, subject to the terms of this Agreement.

- 12.3 Consultant 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 District that is inadequately compensable in damages. Accordingly, District 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. Consultant acknowledges and agrees that the covenants contained herein are necessary for the protection of the legitimate business interest of District and are reasonable in scope and content.
- 12.4 Consultant in providing all services hereunder agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.
- 12.5 Consultant expressly acknowledges that District is subject to the Texas Public Information Act, TEX. GOV'T CODE ANN. §§ 552.001 et seq., as amended, and notwithstanding any provision in the Agreement to the contrary, District will make any information related to the Agreement, or otherwise, available to third parties in accordance with the Texas Public Information Act. Any proprietary or confidential information marked as such provided to District by Consultant shall not be disclosed to any third party, except as directed by the Texas Attorney General in response to a request for such under the Texas Public Information Act, which provides for notice to the owner of such marked information and the opportunity for the owner of such information to notify the Attorney General of the reasons why such information should not be disclosed. The terms and conditions of the Agreement are not proprietary or confidential information.

#### Section 13. Independent Consultant

- 13.1 In the performance of work or services hereunder, Consultant shall be deemed an independent Consultant, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of Consultant or, where permitted, of its subcontractors.
- 13.2 Consultant 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 District and shall not be entitled to any of the privileges or benefits of District employment.

# Section 14. Notices

- 14.1 Each party giving any notice or making any request, demand, or other communication (each, a "Notice") pursuant to this Agreement shall do so in writing and shall use one of the following methods of delivery, each of which, for purposes of this Agreement, is a writing: personal delivery, registered or certified mail (in each case, return receipt requested and postage prepaid), or nationally recognized overnight courier (with all fees prepaid).
- 14.2 Each party giving a Notice shall address the Notice to the receiving party at the address listed below or to another address designated by a party in a Notice pursuant to this Section:

District:

Fort Bend Drainage District

Attn: Chief Engineer 301 Jackson Street Richmond, Texas 77469

With a copy to:

Fort Bend County

Attn: County Judge 401 Jackson Street Richmond, Texas 77469

Consultant:

Tolunay-Wong Engineers, Inc.

10710 S. Sam Houston Parkway W, Suite 1000

Houston, Texas 77031

- 14.3 A Notice is effective only if the party giving or making the Notice has complied with subsections 14.1 and 14.2 and if the addressee has received the Notice. A Notice is deemed received as follows:
- 14.3.1 If the Notice is delivered in person, or sent by registered or certified mail or a nationally recognized overnight courier, upon receipt as indicated by the date on the signed receipt.
- 14.3.2 If the addressee rejects or otherwise refuses to accept the Notice, or if the Notice cannot be delivered because of a change in address for which no Notice was given, then upon the rejection, refusal, or inability to deliver.

#### Section 15. Compliance with Laws

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

# Section 16. Performance Representation

Consultant represents to District that Consultant has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession practicing in the greater Houston metropolitan area and Consultant will apply that skill and knowledge with care and diligence to ensure that the Services provided hereunder will be performed and delivered in accordance with the highest professional standards.

#### Section 17. Assignment

- 17.1 Neither party may assign any of its rights under this Agreement, except with the prior written consent of the other party. That party shall not unreasonably withhold its consent. All assignments of rights are prohibited under this subsection, whether they are voluntarily or involuntarily, by merger, consolidation, dissolution, operation of law, or any other manner.
  - 17.2 Neither party may delegate any performance under this Agreement.
- 17.3 Any purported assignment of rights or delegation of performance in violation of this Section is void.

# Section 18. Applicable Law

The laws of the State of Texas govern all disputes arising out of or relating to this Agreement. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all legal actions or proceedings arising out of or relating to this Agreement and waive the right to sue or be sued elsewhere. Nothing in the Agreement shall be construed to waive the District's sovereign immunity.

# Section 19. Successors and Assigns

District and Consultant 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.

#### **Section 20. Third Party Beneficiaries**

This Agreement does not confer any enforceable rights or remedies upon any person other than the parties.

#### Section 21. Severability

If any provision of this Agreement is determined to be invalid, illegal, or unenforceable, the remaining provisions remain in full force, if the essential terms and conditions of this Agreement for each party remain valid, binding, and enforceable.

#### Section 22. Publicity

Contact with citizens of Fort Bend County, media outlets, or governmental agencies shall be the sole responsibility of District. Under no circumstances whatsoever, shall Consultant release any material or information developed or received in the performance of the Services

hereunder without the express written permission of District, except where required to do so by law.

# Section 23. Captions

The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of this Agreement.

### Section 24. Conflict

In the event there is a conflict between this Agreement and the attached exhibit, this Agreement controls.

## Section 25. Certain State Law Requirements for Contracts

For purposes of sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Consultant hereby verifies that Consultant and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:

- 25.1 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.
- 25.2 If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant 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 section 808.001 of the Texas Government Code.
- 25.3 If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant 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 section 809.001 of the Texas Government Code.
- 25.4 If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant 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 section 2274.001(3) of the Texas Government Code. "Firearm entity" and "firearm trade association" have the meanings provided in section 2274.001(6) and (7) of the Texas Government Code.

# Section 26. Human Trafficking

BY ACCEPTANCE OF AGREEMENT, CONSULTANT ACKNOWLEDGES THAT THE DISTRICT IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO DISTRICT FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the date signed by the last party hereto.

Fort Bend County Drainage District	Tulonay-Wong Engineers, Inc.
KP George, County Judge	Found Hammond Authorized Agent - Signature
Date	Fouad Hammoud
works.	Authorized Agent – Printed Name
ATTEST:	V.P. Title
Laura Dishard Court of	06/08/2022
Laura Richard, County Clerk	Date
APPROVED:	
Mak Val	
Mark Vogler/P.E., Chief Engineer	
AUDITO	R'S CERTIFICATE
I hereby certify that funds are avaccomplish and pay the obligation of Fort Be	vailable in the amount of \$ to end County Drainage District under this contract.
	Robert Ed Sturdivant, Fort Bend County Auditor
f-(Marcus), Agraements (Drainage District), Ditch H\Agraement - Geo Eval. TW. docx 6/1/201	22. 22-Dmg-101549
Agreement for Profess	ional Geotechnical Evaluation

Agreement for Professional Geotechnical Evaluation
Slope Stabilization of Ditch H from Brazos River to US 90A
Page 10 of 10

# **EXHIBIT A**

10710 S. Sam Houston Pkwy W., Suite 100 \* Houston, TX 77031 \* 713-722-7064 \* Fax 713-722-0319

April 25, 2022

TWEI Proposal No: P22-E280

Mr. Mark Vogler, P.E. Manager/Chief Engineer Fort Bend County Drainage District 1124 Blume Road, Rosenberg, TX

RE: Proposal for Geotechnical Evaluation

Slope Stabilization of Ditch H from Brazos River to US 90A

24,500-ft North of Brazos River Sugar Land, Fort Bend County, Texas

Dear Mr. Vogler:

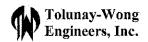
We appreciate the opportunity to submit our proposal to conduct a geotechnical evaluation for the proposed stabilization of Ditch H from the Brazos river to US 90A in Sugar Land, Fort Bend County, Texas. Project details were provided by you during our meeting on March 11, 2022.

We reviewed the 95% submittal of construction plans for "Ditch H Channel Restoration" prepared by ISANI dated February 11, 2022. In our opinion the proposed repairs mainly provide erosion protection of the bottom and slope toe but do not address the overall stability of the slopes. In our professional opinion re-constructing the existing failed slopes as shown in the February 11, 2022, drawings could result in recurring slope failures. Ditch H should be addressed by performing slope stability analyses at the failed areas to evaluate the existing and pre-failure conditions and implementing the findings in the repair analyses and recommendations, that will result in adequate factors of safety.

TWE performed slope stability analyses for a failed slope at Ditch H-2 west slope located about 1500 ft north of Commonwealth Boulevard. This slope has about 4 horizontal: 1 vertical (4H:1V) slope and is about 30 ft high. We understand that this slope failed, was restored using soil backfill, and then failed again. Our analyses indicated that this slope required reinforcement. We recommended installing 7 rows of timber piles to reinforce the slope and intersect the slip surface failure. Based on the analyses we performed and available boring logs we anticipate that reinforcement will be required to maintain stable slopes.

We understand that previous geotechnical investigations were performed along this portion of Ditch H. Twenty borings by Fugro (Borings B-1 through B-20), 3 borings by TWE (Borings B-1 through B-3), and 3 borings by Terracon (Borings B-1, B-2, and B-5). These borings, any other available reports, and field observations of the existing failed slopes will be used to evaluate Ditch H.

The February 11, 2022, drawings present 67 profiles along Ditch H (from Sta 2+60 to Sta 228+50) showing existing topographical elevations and proposed restorations. We selected 15 profiles that we judged to require stability analyses to address Ditch H slope failures. The stations selected are 4+00, 5+60, 6+60, 19+95, 28+70, 48+00, 53+30, 121+30, 136+90, 138+60, 162+20, 163+40, 224+70, 225+60, and 228+00.



This proposal does not include the cost of additional topographic surveys that could be require additional survey to perform the geotechnical analyses. We understand that survey if required will be provided by others. We also did not include the cost of obtaining borings and performing laboratory testing because we are planning to use the available data.

#### **Scope of Services**

Our scope of services will utilize the available data to perform geotechnical evaluation. We will submit geotechnical engineering report documenting the design and construction recommendations for the proposed slope stabilizations.

Field Exploration. No field exploration will be performed for this assignment.

**Laboratory Testing.** No laboratory testing will be performed for this assignment.

<u>Engineering Analyses.</u> We will interface with Fort Bend County Drainage District and their design team during the course of the study to discuss the geotechnical information for the slope stabilization aspects of the project. We will prepare an engineering report that will present our findings and provide geotechnical design and construction recommendations for this project, including:

- establishing the general site soil stratigraphy using the previous geotechnical investigations or other available reports, and the results of our field observations of the existing failed slopes,
- establishing the general site groundwater condition using available reports, and the results of our site observations.
- performing stability analyses (short term, rapid drawdown, and long term conditions) for the proposed slope stabilizations for up to 15 sections of Ditch H at the stations listed above,
- providing recommended conceptual repair design for an individual slope repair site or if applicable recommend conceptual repair design for a group of sites,
- providing construction procedures for the proposed slope stabilization repairs, and
- as the work is proceeding, we will coordinate with Fort Bend County Drainage District and their design team for constructability reviews to help optimize the cost to stabilize the slopes.

If the channel repairs project requires more than 15 sections to be analyzed we will request additional funds to cover our cost.

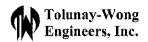
Additional services could be required to obtain permits from governmental agencies for construction. These services are not included in this proposal.

The report will present characterization of the soil and groundwater conditions, results of our engineering analyses, and design recommendations. Our report will include profiles of the subsurface soil and groundwater conditions used in our analyses.

We will provide three copies of the report which will be sealed by a professional engineer licensed in the State of Texas.

#### **Budget**

Our estimated cost for the above-described services is \$58,900.00 for the proposed slope stabilization recommendations. This cost will not be exceeded without your prior written authorization. The cost for the geotechnical study assumes that ingress/egress is provided by others. The cost breakdown is shown in



the attached table. This budget includes site visit prior to performing the slope stability analyses and to analyzing up to 15 channel sections.

We will bill for the actual hours expended. If the channel repairs project requires more than 15 sections to be analyze we will bill you the additional cost at an hourly rate of \$220.00/hour. We will not bill for this additional cost without your prior approval.

If during construction a senior geotechnical engineer is requested for consultation in the field to help the construction crew implement the slope stabilization design recommendations or to attend meetings, his time will be billed at an hourly rate of \$220.00/hour.

#### **Schedule**

It is expected that TWE services will be performed over a period of about six months. As each profile is evaluated, we will submit it for review to Fort Bend County Drainage District and their design team. We will incorporate the comments in our conceptual design and investigate the most cost effective slope stabilization systems. We anticipate that we will submit the first evaluated profile 2 weeks after we receive the notice to proceed and follow up by submitting at least one profile each week. Once TWE and Fort Bend County Drainage District agree to a final conceptual design for the slope stabilizations, a total of 14 calendar days will be required to prepare and submit the final geotechnical report.

#### **Closing Remarks**

We would like to express our appreciation for the opportunity to submit this proposal and look forward to serving you on this project.

Sincerely,

TOLUNAY-WONG ENGINEERS, INC.

Fouad Hammoud

Fouad Hammoud, P.E.

Accepte	d by: _	
Name:		
Date:		
Attachm	ients:	Table 1 Budget Estimate
FH		

#### Unit Cost Breakdown Geotechnical Evaluation Slope Stabilzation at Ditch H From Brazos River to US 90A Fort Bend County, Texas

# Table 1

ltem		Description	Estimated Quantity	Unit Cost	Extension				
1	Geotechnical Evaluation								
	a)	Perform site visit to examine the slope failures	1	\$ 3,600	\$	3,600			
	b)	Perform Slope Stability Analyses on 15 Profiles (ea)	15	\$ 3,100	\$	46,500			
2	Geote	echnical engineering report (hr)	40	\$ 220	\$	8,800			
	•		Tot	Total		58,900			

ea = each hr = hour