STATE OF TEXAS §

§

COUNTY OF FORT BEND §

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES CHANNEL REHABILITATION AND CONVEYANCE IMPROVEMENTS LONG POINT CREEK

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 iGET Services, LLC (hereinafter "Consultant"), a company authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, District desires that Consultant perform preliminary engineering and develop an optimal design concept for the Long Point Creek Channel Rehabilitation and Conveyance Improvement Project for the District, (hereinafter "Services"); and

WHEREAS, County has determined Contractor is the most highly qualified provider of the desired Services on the basis of demonstrated competence and qualifications, and County and Contractor 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 the proposal attached hereto as Exhibit A, and incorporated herein for all purposes.

Section 2. Personnel

- A. 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.
- B. 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

- A. 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 Scope of Services described in Exhibit A is two hundred sixty thousand three hundred eighty-three and 54/100 dollars (\$260,383.54). In no case shall the amount paid by District under this Agreement exceed the Maximum Compensation without written amendment executed by the parties.
- B. 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.
- C. 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

- A. 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 two hundred sixty thousand three hundred eighty-three and 54/100 dollars (\$260,383.54), specifically allocated to fully discharge any and all liabilities District may incur.
- B. 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 two hundred sixty thousand three hundred eighty-three and 54/100 dollars (\$260,383.54).

Section 5. <u>Time of Performance</u>

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 one hundred twenty (120) days thereafter. Consultant shall complete the tasks described in the Scope of Services (attached hereto as Exhibit A) within this time or within such additional time as may be extended by the District.

Section 6. Modifications and Waivers

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

- B. 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.
- C. 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

A. Termination for Convenience – District may terminate this Agreement at any time upon thirty (30) days written notice issued by the Purchasing Agent or the Chief Engineer.

B. Termination for Default

- 1. District may terminate the whole or any part of this Agreement for cause in the following circumstances:
- a. 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;
- b. 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.
- 2. If, after termination, it is determined by District that for any reason whatsoever that Consultant was not in default, or that the default was excusable, services may continue in accordance with the terms and conditions of this Agreement or 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 7A above.
- C. 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.
- D. 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.

Section 9. <u>Inspection of Books and Records</u>

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. Insurance

- A. 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 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:
- 1. Workers Compensation in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
- 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.
- 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 our of the business operations of the policyholder.
- 4. 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.
 - 5. Professional Liability insurance with limits not less than \$1,000,000.
- B. District and the members of 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 Consultant shall contain a waiver of subrogation in favor of District and members of Commissioners Court.
- C. 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 the work under this Contract is completed.

- D. Consultant 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 District.
- E. No cancellation of or changes to the certificates, or the policies, may be made without thirty (30) days prior, written notification to District.
- F. Approval of the insurance by District shall not relieve or decrease the liability of the Consultant.

Section 11. Indemnity

CONSULTANT SHALL INDEMNIFY AND HOLD HARMLESS DISTRICT AGAINST LOSSES, LIABILITIES, CLAIMS, AND CAUSES OF ACTION, INCLUDING THE REIMBURSEMENT OF DISTRICT'S REASONABLE ATTORNEYS FEES IN PROPORTION TO CONSULTANT'S LIABILITY, ARISING FROM ACTIVITIES OF CONSULTANT, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENT ACT, INTENTIONAL TORT, ERROR, OR OMISSION OF CONSULTANT OR ANY OF CONSULTANT'S AGENTS, SERVANTS OR EMPLOYEES.

Section 12. Confidential and Proprietary Information

- A. Consultant 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 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.
- B. Consultant agrees to hold Confidential Information in strict 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, 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.

- 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.
- D. Consultant in providing all services hereunder agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.
- E. 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. <u>Independent Consultant</u>

- A. In the performance of work or services hereunder, Consultant shall be deemed an independent contractor, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of contractor or, where permitted, of its subcontractors.
- B. 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

- A. 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).
- B. 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 County Drainage District

Attn: Chief Engineer 301 Jackson Street Rosenberg, Texas 77469

With a copy to: Fort Bend County

Attn: County Judge 401 Jackson Street Richmond, Texas 77469

Consultant: iGET Services, LLC

3727 Greebriar Drive, Suite 114

Stafford, Texas 77477

- C. Notice is effective only if the party giving or making the Notice has complied with subsections 14(A) and 14(B) and if the addressee has received the Notice. A Notice is deemed received as follows:
- 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.
- 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. Standard of Care

Consultant represents shall perform the Services to be provided under this Agreement with the professional skill and care ordinarily provided by competent engineers practicing under the same or similar circumstances and professional license. Further, Consultant shall perform the Services as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer.

Section 17. Assignment and Delegation

- A. 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 by Consultant are prohibited under this subsection, whether they are voluntarily or involuntarily, without first obtaining written consent from District.
 - B. Neither party may delegate any performance under this Agreement.
- C. 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. <u>Certain State Law Requirements for Contracts</u>

- A. <u>Agreement to Not Boycott Israel Chapter 2271 Texas Government Code</u>: By signature below, Consultant verifies that if Consultant employs ten (10) or more full-time employees and this Agreement has a value of \$100,000 or more, Consultant does not boycott Israel and will not boycott Israel during the term of this Agreement.
- B. <u>Texas Government Code Section 2251.152 Acknowledgment</u>: By signature below, Consultant represents pursuant to Section 2252.152 of the Texas Government Code, that Consultant is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.

Section 26. Human Trafficking

BY ACCEPTANCE OF AGREEMENT, CONSULTANT ACKNOWLEDGES THAT THE 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.

[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.]

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	IGET SERVICES, LLC
	S. PM
KP George, County Judge	Authorized Agent – Signature
	Dr. Satya Pilla, P.E., PMP, ENV SP
Date	Authorized Agent – Printed Name
ATTEST:	Principal
	Title
	10-29-2020
Laura Richard, County Clerk	Date
APPROVED:	
Mark Vogler	
Mark Vogler, P.E., Chief Engineer	
ALIDITOR	'S CERTIFICATE
	nd County Drainage District under this contract.
R	obert Ed Sturdivant, Fort Bend County Auditor
I:\Marcus\Agreements\Drainage District\Long Point Creek\Agreement - Channel Rehab &	Improvements.iGet.docx.10/28/2020. 21-Drng-100221

EXHIBIT A





Office: 3727 Greenbriar Drive, Suite 114, Stafford, TX 77477

Tel: +1.832.858.3982 +1.281.220.1307

Email: info@igetservices.com Website: www.igetservices.com

Ref: FBCDD-Prop-20-01 August 11, 2020

To
The Manager / Chief Engineer
Fort Bend County Drainage District
1124 Blume Rd.
Rosenberg, Texas 77471

Attn: Mr. Mark Vogler,

RE: Design of Long Point Creek Channel Rehabilitation and Conveyance Improvement

Dear Mr. Vogler,

iGET Services LLC is pleased to present this proposal for performing preliminary engineering and developing optimal design concept for Improvements for the above referenced project. The scope, deliverables, engineering fee and schedule presented in this proposal are based on our understanding from the information provided in our scoping meetings with Fort Bend County Drainage District (FBCDD), dated June 22, 2020 and July 21, 2020; our discussions with the sub-consultants for Surveying, Geotech engineering; our observations from the field visit on June 29, 2020; and our research from the subdivision drainage system design documentation pertaining to Creekmont's Missouri-165 Acre Tract Land Development Drainage Study report, and New Point Territory Development reports and the drawings provided to us by FBCDD.

Project Description

The project limits for the channel improvement of the Long Point creek are from Hwy 6 on the North to McCree Rd on the South. The channel has a 205 ft wide easement band for most of its way. Pathway of the Long Point creek improvement being proposed is as follows: Starting immediately South of Hwy 6, running south bound, crossing the Darby Lane, running further South and south-West, branching out into West bound and South bound flows, with West bound flow into a diversion channel, eventually meeting Oyster creek and South flow into an inverted syphon to cross McCree Road. The creek spans from State Highway 6 to McKeever Rd, a total distance of approximately 6,200 linear feet, and the West bound diversion channel, parallel to McKeever Rd., a distance of approximately 1,800 feet, until it meets Oyster creek.



In order to study the existing conditions for channel improvements, iGET team has performed a quick review of the documentation pertaining to Creekmont and New Point Estates and learnt the following salient information about the creek:

- According to the "Missouri 165-acre Tract" Creekmont development drainage reports, an area of 105 Acres out of the total area of 165 Acres is located on the South of HWY 6, allocated to the Long A1 drainage sub-basin. A floodplain/ detention area is demarcated on the West bank of the Long Point creek, and to the South of HWY 6, in this general area.
- In the documented correspondence from records at FBCDD it was referenced that -according to the previous Fort Bend County Regional Flood Control study, the ultimate bottom width of the channel when completed would be 65 feet wide, with 3 to 1 slope. It was also recorded that a major downstream drainage work along the Long Point creek, and the by-pass channel to the Oyster creek should be completed to make the drainage capacity of the Long Point creek adequate.
- The most recent H&H study of Oyster creek watershed is conducted by Walter P. Moore and Freese Nichols in 2020, using ATLAS-14 rainfall data. In his email to Mark Vogler, Mr. Hector from Freese Nichols indicated that the downstream portion of Long Point creek is controlled by the interaction with Oyster creek.

During the site visit by the iGET team, it was observed that the Long Point creek Improvement project will have to address the following major objectives:

- The creek has formed into large pools at multiple locations, and considerable silting was evident at downstream of the Darby lane, requiring channel improvement for smooth flow of waters.
- The diversion channel appears to be in bad shape, and not working as intended per the design records. Existing conditions need to be assessed and improved for the diversion of flow as established in the New Point Estate development records. Also, the design allowable for flow diversion into Oyster creek on the West side needs to be researched in the records of the jurisdictional authority.
- The Inverted syphon under McKeever Rd needs to be assessed for its existing conditions and reconciled with the latest hydraulic study results of the from Freese Nichols and Walter P. Moore.

Project Objectives and Approach:

Preliminary Engineering

The Preliminary Engineering effort from the iGET team will consist of

- Initiation of project setup
- Gathering existing information, performing site visits
- Coordination with government agencies and jurisdictional determination;
 identifying necessary permits, easements and agreements from USACE, TCEQ,



- FEMA, Gulf Coast Water Authority, HOA's, etc.
- Identifying and defining conflicts, evaluating alternate design concepts
- Preparing general vicinity maps and schematics, quantities and construction cost estimates
- Preparing a Preliminary Engineering Report

A detailed review of the site conditions for this project, the geotech assessments, the watershed characterization, stream conditions assessments, flow analysis, study of the terrain where silting/ scouring is evident, the existing ROW, gorges and pools which are evident in the field, and obstructions to the natural flow due to reduced capacity of the channel, will be considered in a systematic fashion to evaluate channel improvement concepts using Lined and Natural Channel Designs.

iGET will evaluate alternative design options for using traditional Riprap or Concrete lining for stabilizing the banks of the Channel sections. Use of bio-stabilization techniques and earth-reinforcement using geo-grid will be evaluated in opportune areas. The design approach in the selected areas will be focused to: (1) address and mitigate the bottlenecks to flow, (2) manage flooding from the design storms, and (3) achieve cost savings.

The Bio-Stabilization expertise with iGET is a proven low-impact-development method to rehabilitate channels, and it is effectively implemented in multiple locations in the State of Texas, including on the White Oak Bayou tributary in the Harris County, and Trinity river in the Dallas Fort Worth area.

The scope of Surveying services included in the attached proposal from Weisser Engineering & Surveying will be in accordance with the Fort Bend County Drainage District Surveying Guidelines. Scope of Geotech investigations attached to this proposal will be performed by Terracon Consultants Inc.,

Detailed Design (next phase – not included in this proposal)

After completion of Preliminary Engineering and the necessary reviews, the project will progress to Design Phase Services. iGET will accomplish the Channel improvement design by teaming with Subconsultants for refining Geotechnical assessments, and for performing Surveys as needed. The design scope, including Hydrology and Hydraulics studies, Environmental Engineering services, Geomorphic analysis (if and as needed), and Bio-Technical stabilization if applied, will be performed by iGET.

Preliminary Engineering for the Channel Improvement Fee Proposal

iGET proposes to provide professional engineering services for the Preliminary Engineering for a total fee of \$260,383 with the following cost break-down. Descriptions of these Basic and Additional Services are provided in Appendix A and Appendix B:



Appendix A – Basic Services									
Task	Description	Fee							
A.1	Evaluation of Existing Site Conditions	\$10,117							
A.2	30% PER Studies	\$32,759							
A3	30% Deliverables	\$49,879							
	Sub Total	\$92,755							
Appendix B - A	Additional Services								
Task	Description	Fee							
B.1	Project Management	\$28,808							
B.2	Survey Services	\$100,920							
B.3	Geotechnical Investigations	\$15,900							
B.4	Impact Analysis	\$9,940							
B.5	Environmental Investigations & Permit Coordination	\$12,060							
	Sub Total	\$167,628							
	Grand Total	\$260,383							

Project Schedule

Upon receiving written notice to proceed, iGET can complete the Preliminary Engineering services in accordance with the following schedule. These major groups of Activities are expected to be sequential, with each group of activities is dependent on the completion of the preceding group of activities.

- Additional services are expected to be done concurrent to the Basic services.
- It is also assumed that the Utility relocations if needed, and the ROW acquisition
 if needed, will be handled by the FBCDD, and the consultant may not have any
 direct influence on these timelines.
- This schedule allows for a 2-week review time by the Fort Bend County Drainage District for each of the milestone submittals

	Activity	Duration	Cumulative Duration
Preliminary Engineering	A. 30% Submittal	120 days	120 days
	B. 50% Submittal		
Design Phase	C. Bid Ready (90%) Submittal		
	D. Final Plans (100%) Submittal		
Bidding and A	Award Phase		
Construction	Phase (estimate only)		



Project Cost breakdown is provided as a separate Exhibit in an Excel spreadsheet. Please let me know if you have any questions or need clarifications. I will be pleased to answer.

Best Regards,

Dr. Satya Pilla, P.E., PMP, ENV SP

Principal

iGET Services LLC

Q. Plle



APPENDIX A

GENERAL SCOPE OF BASIC SERVICES

GENERAL

The intent of the basic services is to prepare construction documents for the *Long Point Creek Channel Improvement*. The scope of services for basic services is as follows:

Reference Materials and Standards:

- Wherever there are differences in requirements between the reference materials and standards and this scope, Engineer shall perform services in accordance with the stricter requirements.
- Units of Measure This Project shall be prepared using English units.
- Deliverables in Electronic Format: Engineer shall submit electronic copies of intermediate and final reports, documents, plans and other work products on suitable media in the following formats:
 - o Submit text files in Microsoft Word format.
 - o Submit design drawing files and exhibits in AutoCAD Civil 3D format.
 - Submit a duplicate of text and drawing files in PDF format
 - o Submit photographs in a digital format converted to a JPEG image format

1. EVALUATION OF EXISTING SITE CONDITIONS AND CONSTRAINTS

- A. Review of Available Data: Conduct a thorough review of the available data, and assess the constraints, and recommendations from the previous studies. Review the H&H data, locations and adequacy of the geotechnical data obtained, slope stability studies performed from the available data. Review the available Survey exhibits of topography, utilities, easements, encroachments, etc.
- B. <u>Site Visits</u>: Conduct onsite review of existing site conditions and identify any constraints. Research/collect/review previous drainage studies, geotechnical reports, construction plans, public and private utility data, right of way information and adjacent land use. Review on-going and planned projects in the project area. Procure new topographic surveys, geotechnical investigations, environmental and archeological assessments and utility investigations as necessary.



C. <u>Design</u>: Determine the current channel stability conditions and processes as well as interpretation of the potential upstream and downstream channel instability processes that have resulted in stream bed and bank erosion/silting within the project reach.

Perform investigation of the existing topographic survey and ROW pinch points in the project area to investigate potential channel cross section designs and planview layout that will minimize private property impacts in the reach due to the project

Analyze/refine slope stability and develop design solutions for channel rehabilitation. While implementing the Channel-lining using traditional Riprap for the slope protection, also evaluate and implement bio-stabilization/earth-reinforcement techniques in opportune areas with demonstrable cost/technical advantages. Keeping in view the existing ROW, identify realignments and transitions. Achieve streambank improvements at cross-sections. Perform impact study from the new alignment and the cross-section improvements.

D. <u>Hydrologic and Hydraulic (H&H) Analysis</u>: Conduct required H&H analyses to assess existing and proposed conditions for chosen project scenarios and alternatives. Perform impact analysis

2. CONSTRUCTION DOCUMENTS

Prepare drawings in accordance with FBCDD's latest Drawing and Graphic Standards, and Surveying Guidelines. Construction drawings shall be prepared so they are legible and to scale when printed on 11"x17" size paper.

Prepare specifications and special provisions for a Project Manual in a format prescribed by the District.

Prepare a final cost estimate of probable construction cost using District pay items.

Follow Quality Assurance/Quality Control (QA/QC) procedures that meet or exceed the FBC's requirements.

Prepare a comprehensive project schedule to be maintained at all times and submitted with monthly invoices. Progress submittals are as discussed in the following

- A. 30% Submittal
- 1. Deliver a PER Report, 2 sets of 11"x17" plans, a PDF file of the plans. The submittal shall include the following as a minimum and shall have been reviewed for quality assurance:
- 2. Plans
 - a. FBCDD Cover Sheet
 - b. Legend & Abbreviations
 - c. Project vicinity map, including construction access plan
 - d. General Notes



- e. Project Layout Existing Features with new Survey info 1" = 200'
- f. Project Layout Proposed Features 1" = 200'
- g. Project survey control and control point detail sheets showing survey baseline, survey data tables, existing and proposed FBCDD right of way, public and private easements crossing and adjacent to District ROW.
- h. Quantity estimate page
- i. Soil boring logs
- j. Separate ROW sheet layout showing existing and proposed ROW acquisition tracts
- k. Proposed design concepts for top of banks, bottom widths, flowlines, hydraulic structures, piping and appropriate design labeling. Include existing and proposed right of way, existing and proposed drainage structures/features, existing utilities (public and private), existing tree preservation and ROW encroachment locations.
- I. Stormwater Pollution Prevention Plan (SWPPP) standard BMP plan

3. Additional items to submit

- a. Draft engineers estimate using FBC pay items in standard format
- b. Utility Conflict Table, showing all utilities in conflict, whether or not a relocation is required, if so, who is responsible for coordinating the relocation, and what is the current status.



APPENDIX B

GENERAL SCOPE OF ADDITIONAL SERVICES

The Engineer shall render the following Additional Services in connection with the Project when authorized in writing by the Director:

PROJECT MANAGEMENT

- A. Perform tasks associated with project management and administration necessary for completion of the project.
- B. Provide sub-consultant contract management.
 - Engineer shall not subcontract any part of its Contract without approval by the Director.
 - ii. Engineer shall be responsible for services performed by Sub-Consultants to the same extent as if the services were performed by Engineer.
 - iii. Engineer shall replace any Consultant when requested to do so by the Director, who shall state the reasons for such request.
 - iv. Engineer shall provide the Director with a copy of any of its Consultant subcontracts at Director's request.
- C. Attend Project kickoff meeting and monthly status meetings. Provide an agenda for each meeting and follow up with meeting minutes after each meeting.
- D. Provide monthly Project Status updates to document progress.

2. SURVEY SERVICES

- A. Perform survey in accordance with the District's Surveying Guidelines and other District design requirements as designated in writing by the Director. A Category 1B, Condition II Standard Land Survey of the Long Point Creek in accordance with the Manual of Practice of the Texas Society of Professional Surveyors (TSPS) and specific to FBCDD Standards for Surveying.
 - i. Control
 - a) Establish project control based on Texas State Plane, South Central Zone NAD 83 coordinates for the horizontal and Reference Marks (NAVD 88, 2001 Adj.) for the vertical.
 - ii. Channel
 - a) Locate visible drainage structures
 - iii. Pipes
 - a) Size & Flowline
 - b) Locate actual bottom of pipe
 - c) Tie in flowline based on sediment build-up
 - iv. Slope Interceptors



- a) Flowlines
- b) Locate concrete structure
- v. Swales
 - a) Detail areas of erosion/wash-out/sinkholes on slope banks
 - b) Locate fence lines
 - c) Locate visible utilities
 - d) Identify encroachments
 - e) Identify paving and headwalls
 - f) Identify OHWM's
- B. Provide new District monumentation as required
- C. Prepare metes and bounds exhibits, two staking of encroachments
- D. Provide as-built surveys to determine final quantities of excavated material upon completion of construction. Provide information for the Record Drawings

3. GEOTECHNICAL INVESTIGATION

- A. Perform in accordance with the District's Geotechnical Investigation Guidelines and other District requirements.
 - i. Field Reconnaissance and Review of Prior Information
 - a) PER Review
 - b) Site visit to map areas of distress
 - ii. Ii. Field Exploration
 - a) 5 borings of 30 ft. each, using ATV mounted drill rig
 - b) Estimates of Shear strength, SPT N-values
 - c) Depth-to-water measurements
 - iii. Iii. Laboratory Testing
 - a) Visual classification and water content
 - b) Unit Dry Density
 - c) Liquid and Plastic Limits
 - d) Mechanical Gradation and/or percent Passing No. 200 Sieve
 - e) Crumb Tests
 - f) Unconfined Compression
 - g) Unconsolidated-Undrained Triaxial
 - h) Consolidated-Undrained Triaxial
 - iv. Iv. Engineering Analysis and Recommendations
 - a) Requirements for over-excavating failed soil masses
 - b) Reconstructing failed slopes
 - c) Reshaping channel slopes
 - d) Recommendations for adequate armoring against erosion
 - e) Review Global Stability Analysis from the design for
 - 1) Short-term undrained



- 2) Long-term drained
- 3) Rapid drawdown (total and effective) conditions
- f) Present construction related considerations for
 - 1) Temporary dewatering and channel flow diversion
 - 2) Proper placement and compaction of structural fill
 - 3) Specification for erosion protection systems
 - 4) Installation of stone trenches (as applicable)
- B. Boring Logs in the final plans shall be signed and sealed by the Professional Engineer licensed in the State of Texas who was responsible for signing and sealing the Geotechnical Work the plans are based upon.

4. ENVIRONMENTAL SERVICES

FBCDD and IGET will be responsible for coordination regarding the environmental components of the assessment. FBCDD and IGET will be responsible for putting together the permit application required by USACE.

IGET will provide FBCDD all required exhibits for the permit application. This

IGET will provide FBCDD all required exhibits for the permit application. This includes any meeting with USACE Galveston

5. H&H IMPACT ANALYSIS

A. Prepare, a letter summarizing the H&H assessments for the proposed design concept(s), impact of the Project on flood profiles and peak flows

Page 1 of 2

PID No.: File No.: Consultant Project No.:



A.1				წ				B.4			ţ	В.3						B.2				B.1		No. Sheets	SERVICES	OF I
Evaluation of Existing Site Conditions Research and Data Collection, GIMS, Record Drawings, Maps Review Boundary and Topographic Data; Identify ROW Constraints	Subtotal (hours) Environmental Subtotal (\$) Environmental	Application Application	Government Agencies	Environmental Services Determine the Jurisdictional Authorities Environmental Phase I Assessments as needed Coordinate with the Water Authorities and State/Fedweral	Subtotal (hours) H&H Subtotal (\$) H&H	Investigation of Pinchpoints for Streamflow	Watershed Charecterization Stream Conditions Assessment	H&H Impact Assessments Local HEC-RAS Models	Reviews and SubConsultant Management	Laboratory Testing Geotechnical Consulting & reporting Subtotal Geotechnical	Subsurface Exploration	Geotechnical Services	Reviews and SubConsultant Management	Existing and proposed ROW acquisition tracts. (Survey) Subtotal Surveying	Limited Topo Downstream of McKeever Rd.	Topographic Surveying for the Channel and Intersecting Roadways (Cat6: Cond II)	Survey Control Map Detail Locations (Survey) Existing Right-of-Way Mapping (Cat 1B, Cond II)	Surveying Services	Subtotal (hours) Project Management Subtotal (\$) Project Management	Provide monthly Project Status updates to document progress	Project Meetings (6 + meeting minutes)	Project Management Project Management (Plan, Monitor, Control and Comm) Subcontractor Management	Raw Salary Raw Salary Multiplier (3.00)	Description / Task	Consultant: iGET Services, LLC August, 2020	□ Design of Long
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Subtotal (hours) Drawings Subtotal (\$) Drawings	Miscellaneous Details (Include Bio-Stabilization)	Prenare Fracion Control Plan and SWPPP	Structural Detail Sheets Demolition Plans	Channel Cross-Sections at 100' maximum spacing and Point Tables	Plan and Profile Drawings	Quantity Estimate Sheet	Layout - Proposed Features	Layout - Existing Features with Survey info	General Notes	Project Vicinity Map with Construction Access Plan	Legend & Abbreviations	Cover Sheet - with Index of Drawings	Drawings	Subtotal (\$) Preliminary Design	Subtotal (hours) Preliminary Design	Prepare Construction Quantities / Opinion of Cost	Prepare Specifications	Utility Conflict Table	Additional Items to Submit	Hydraulic Control Structures	Bio-technical Stabilization	Channel Design Concepts, Evaluate Alternatives	Analyze/Refine Channel Stability and Develop Design Solutions	Preliminary Design Analyze H&H Parameters for Proposed Conditions	Subtotal (\$) Evaluation of Existing Conditions	Subtotal (hours) Evaluation of Existing Conditions	Walk Project Site and Identify Areas of concern	Review Geotechnical Information Review H&H Models
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