STATE OF TEXAS §

§

COUNTY OF FORT BEND §

# THIRD AMENDMENT TO AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

**THIS THIRD AMENDMENT**, is made and entered into by and between Fort Bend County (hereinafter "County"), a body corporate and politic under the laws of the State of Texas, and Cobb, Fendley & Associates, Inc., (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

WHEREAS, the parties executed and accepted that certain Agreement for Professional Engineering Services on February 24, 2015, (hereinafter "Agreement") pursuant to SOQ 14-025, as amended by documents executed on December 1, 2015, (hereinafter "Amendment"), and March 23, 2021 (hereinafter "Second Amendment"); and

WHEREAS, the parties desire to further amend the Agreement for additional services to be provided and increase the total Maximum Compensation for the completion of such additional services.

#### **NOW, THEREFORE,** the parties do mutually agree as follows:

- The County shall pay the Contractor an additional two hundred thirty thousand one hundred sixty-four dollars and 69/100 (\$230,164.69) for the additional services as described in the proposal dated April 14, 2021 attached hereto as Exhibit "A" and incorporated herein for all purposes.
- 2. The Maximum Compensation payable to Contractor for Services rendered shall remain an amount not to exceed one million eighty-nine thousand nine hundred fifty-four dollars and 56/100 (\$1,089,954.56), authorized as follows:

\$853,908.00 under the Agreement;

\$5,881.87 under this Amendment

\$0.00 under the Second Amendment; and

\$230,164.69 under this Third Amendment.

 In no case shall the amount paid by County for all Services under the Agreement and any subsequently executed amendment exceed the Maximum Compensation without an amendment executed by the County and the Contractor.

#### 4. Human Trafficking

BY ACCEPTANCE OF AGREEMENT, CONTRACTOR 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.

Except as provided herein, all terms and conditions of the Agreement and any subsequently executed amendment shall remain unchanged.

FORT BEND COUNTY	COBB, FENDLEY & ASSOCIATES
KP George, County Judge	Authorized Agent – Signature
	Charles M. Eastland
Date	Authorized Agent – Printed Name
ATTEST:	Executive Vice President Title
	4/36/2021
Laura Richard, County Clerk	Date
APPROVED:	
J. Stacy Slawinski, P.E., County Engineer	
APPROVED AS TO LEGAL FORM:	
Marcus D. Spencer, First Assistant County	Attorney
AUDITOR'	S CERTIFICATE
I hereby certify that funds are avai accomplish and pay the obligation of Fort	
	Robert Edward Sturdivant, County Auditor
t\\Marcus\Agreements\Engineering\Road Construction\;0th Street\Amend 3 - 10th Street Cobb Fendleydock 15-Eng 5000;	7-A3
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# **EXHIBIT A**



April 14, 2021

Mr. Stacy Slawinski, P.E. Fort Bend County Engineer C/O Kevin Mineo, P.E. Binkley & Barfield Inc. 1710 Seamist Drive Houston, Texas 77008

Re: 10<sup>th</sup> Street/FM 762 Extension from 90A/Jackson to Clay Street

FBC 2013 Mobility Bond Program Project No. 13106

Subject: Proposal for Professional Services to Re-Start the Project & Third Amendment to existing contract

#### Dear Mr. Slawinski:

We are pleased to provide you with this proposal to perform professional engineering and surveying services in connection with extension of the FM 762/10<sup>th</sup> Street, Fort Bend County Mobility Bond Program Project No. 13106, in the City of Richmond which is also a stakeholder. It is CobbFendley's understanding that the Fort Bend County and the City of Richmond have recently entered an interlocal agreement (ILA) and plan to restart the design and ultimately construction phases of this project. The project will encompass development of an updated preliminary engineering report (PER) to include revised alignment alternative(s), proposed right-of-way (ROW) envelope with required number of parcels, and associated construction costs based on the preferred alignment by the stakeholders. The project final design will proceed upon acceptance and approval of the PER recommendations by the stakeholders.

The following outlines CobbFendley project's understanding of the ILA and associated deliverables in conjunction with this project:

- On February 1, 2021 CobbFendley attended the project kick-off meeting with stakeholders' representatives from the Fort Bend County engineering, City of Richmond public works, and BBI, the managing consultant for the project.
- The northern project termini, Clay Street, is currently under design by CobbFendley for the City of Richmond. The limits of Clay Street improvements are from Collins Road to 2<sup>nd</sup> Street which will include a new intersection with proposed 10<sup>th</sup> Street alignment.
- The original professional services contract issued by Fort Bend County on March 24, 2015 has since expired; therefore, it requires time extension and compensation adjustment to the original contract.
- Proposed 4-lane divided Boulevard typical section within proposed 120-ft ROW.
- Proposed At-grade crossing of the UPRR track(s) north of the US 90A requiring preparation of the Exhibit "A" for the proposed track(s) crossing and coordination with the UPRR home office.
- Include 6-ft sidewalks along the proposed ROW lines and preferably 8-ft sidewalks at the UPRR railroad track(s) crossing.
- Proposed upsizing existing water main and wastewater trunk lines within the project limits.
- Proposed upgrade of the existing traffic signal at the US 90A intersection requiring TxDOT coordination.
- The City & County prefer installation of modern Roundabout at the future Clay Street intersection.
- Proposed 10<sup>th</sup> Street and the Clay Street storm sewer, drainage mitigation and outfall must be closely coordinated with the stakeholders.
- Prepare utility conflict table Identification of all any/all existing utilities and potential H & V conflicts, and submittal of 30%. 70%, 95% & 100% completed plans to pertinent utility owners.



- CobbFendley will prepare the ROW parcel M&B and sketches on an expedited schedule with an understanding that County would like to acquire at least 50% of proposed parcels within 24 months.
- If required, additional services level of effort for subsurface utility engineering (SUE) & additional ROW parcels, deemed necessary, will be prepared, and performed with prior authorization.
- On March 23, 2021, FBC Commissioner Court approved the contract time extension from 2/26/2018 to 2/16/2026.
- Enclosed are supporting documentation for level of efforts breakdown for PER update, final design, surveying, ROW mapping & potential ancillary additional services.

The following outlines budgetary adjustments of compensations requested for the Third Amendment to the existing contract:

Basic Services 1. PHASE I - Preliminary Engineering Report Update
2. PHASE II – Final Design
3. PHASE III - Construction Phase Services including control staking (T&M)
Subtotal Basic Services
Subtotal Basic Services
Additional Services 1. Updated Abstract Map
2. Prepare Existing/Proposed ROW Maps
3. Parcel Exhibits and Legal Descriptions for 45 Parcels @ \$2,800 each \$ 126,000.00
4. Additional Topographical Surveying (As Needed)
5. Construction Baseline Staking (Optional Service)
6. Geotechnical Investigation +10% (All-TERA)
Subtotal Additional Services
Optional Additional Services*         1. Lighting Design & CenterPoint Coordination for power drop & electrical panels
Subtotal Additional Services
* The optional additional services will only be performed with prior County Engineer's authorization.
Reimbursable Direct Expenses  1. Direct Expenses \$ 5,263.64
Subtotal Reimbursable Direct Expenses
Total Fee for Basic, Additional & Optional Services and Reimbursables\$796,644.73

We respectfully request that the existing contract be amended by \$230,164.69 from \$859,789.87 to \$1,089,954.56 to compensate for the or the abovementioned professional services and delivery of the project.



Attached please find a detailed level of effort for the basic, additional, and optional services in addition to a reconciliation worksheet indicating project's budgetary status to date.

Upon receipt of the written notice to proceed we will commence work. Please call at your earliest convenience should you have any questions, or require additional information,

Sincerely,

COBB, FENDLEY & ASSOCIATES, INC.

Mahmoud Salehi, P.E.

Vice President | Senior Project Manager

Attachments

#### Fee Summary

#### 2013 Fort Bend County Mobility Program

## FM 762 Extension/I 0th Street from 90A (Jackson Street) to Clay Street

Fort Bend County Project No. 13106

Sponsor: Fort Bend County

Description: Reconstruction existing 2-lane rural to 4-Lane curb & gutter Boulevard section

including an at-grade crossing of the existing UPRR track(s) within the project limits

Date: 04/14/2021

Basic Services  Phase I PER Update (Lump-Sum)	,	iginal Contract w/1st & 2nd Agreements 147.683.50	Rer	maining Funds	\$	lew Budgets by Task	Rec	dditional Funds quested by Task	_	w Contract Amount w/Ist, 2nd & 3rd Agreements 278.227.67
Phase II Final Design (Lump-Sum)	\$	415,907.37	\$	410.025.50	\$	357.385.22	\$	(52,640.28)	_	363,267.09
Phase III, Construction Phase Services including Control Staking (T&M)	\$	25,000.00	\$	25,000.00	\$	57,500.00	т .	32,500.00		57.500.00
Subtotal Phases I & II (PER, Final Design, Control Staking & CA Services)	\$	588,590.87	\$	435,025.50	<u> </u>	545,429.39		110,403.89	\$	698,994.76
Additional Services										
Prepared Existing/Proposed ROW Map/M&B (Original Contract)	\$	180,000.00	\$	90,000.00	\$	-	\$	(90,000.00)		90,000.00
Updated Abstract Map	\$	-			\$	10,688.00	\$	10,688.00	\$	10,688.00
Prepare Existing/Proposed ROW Maps					\$	32,600.00	\$	32,600.00	\$	32,600.00
Parcel Exhibits and Legal Descriptions for 45 Parcels @ \$2,800 each					\$	126,000.00	\$	126,000.00	\$	126,000.00
Additional Topographical Surveying (As Needed)	\$	47,095.00	\$	-	\$	15,000.00	\$	15,000.00	\$	62,095.00
Construction Baseline Staking					\$	9,500.00	\$	9,500.00	\$	9,500.00
Geotechnical Investigation	\$	36,000.00	\$	36,000.00	\$	18,663.70	\$	(17,336.30)	\$	18,663.70
Subtotal Additional Services	\$	263,095.00	\$	126,000.00	\$	212,451.70	\$	86,451.70	\$	349,546.70
Optional Additional Services										
Lighting Design & CenterPoint Coordination*	\$	-	\$	-	\$	25,000.00	\$	25,000.00	\$	25,000.00
ROW Staking for clearing contractor	\$	-	\$	-	\$	8,500.00	\$	8,500.00	\$	8,500.00
Subtotal Optional Additional Services	\$	-	\$	-	\$	33,500.00	\$	33,500.00	\$	33,500.00
*Anticipated Budgetary Amount & will only be performed with prior County Engineer'  Reimbursables	s App	roval								
Reimbursable Expenses	\$	8,104.00	\$	5,454.54	\$	5,263.64	\$	-	\$	8,104.00
Subtotal Reimbursable Expenses	\$	8,104.00	\$	5,454.54	\$	5,263.64	\$	-	\$	8,104.00
PROJECT TOTALS REQUESTED THIS AUTHORIZATION	\$	859,789.87	\$	566,480.04	\$	796,644.73	\$	230,164.69	\$	1,089,954.56

#### Cobb Fendley Fee Summary

2013 Fort Bend County Mobility Program

#### FM 762 Extension/I0th Street from 90A (Jackson Street) to Clay Street

Sponsor: Fort Bend County

Date: |4/9/2021

OVERAL	L PHASE I & II BAS	IC SERVICES		P	ER UPDATE (PHA	SE I)		FINAL DESIGN SERVICES (PHASE II) INCLUDING BIDDING					
Classification	Hours	Rate	Labor Cost	Classification	Hours	Rate	Labor Cost	Classification	Hours	Rate	Labor Cost		
Principal	25	\$99.67	\$2,491.67	Principal	4	\$99.67	\$398.67	Principal	21	\$99.67	\$2,093.00		
Project Manager	354	\$80.67	\$28,539.87	Project Manager	84	\$80.67	\$6,776.00	Project Manager	270	\$80.67	\$21,763.87		
Senior Engineer	245	\$75.67	\$18,508.07	Senior Engineer	93	\$75.67	\$7,037.00	Senior Engineer	152	\$75.67	\$11,471.07		
Project Engineer III	347	\$58.33	\$20,218.33	Project Engineer III	136	\$58.33	\$7,933.33	Project Engineer III	211	\$58.33	\$12,285.00		
Project Engineer I	571	\$43.00	\$24,570.20	Project Engineer I	170	\$43.00	\$7,310.00	Project Engineer I	401	\$43.00	\$17,260.20		
Senior Technician	665	\$43.00	\$28,595.00	Senior Technician	124	\$43.00	\$5,332.00	Senior Technician	541	\$43.00	\$23,263.00		
CAD Operator	796	\$34.33	\$27,329.33	CAD Operator	156	\$34.33	\$5,356.00	CAD Operator	640	\$34.33	\$21,973.33		
RPLS	0	\$58.33	\$0.00	RPLS	0	\$58.33	\$0.00	RPLS	0	\$58.33	\$0.00		
3-Man Crew	0	\$58.33	\$0.00	3-Man Crew	0	\$58.33	\$0.00	3-Man Crew	0	\$58.33	\$0.00		
Survey Tech I	0	\$37.67	\$0.00	Survey Tech I	0	\$37.67	\$0.00	Survey Tech I	0	\$37.67	\$0.00		
Utility Specialist	16	\$43.00	\$688.00	Utility Specialist	8	\$43.00	\$344.00	Utility Specialist	8	\$43.00	\$344.00		
Clerical	22	\$27.33	\$590.40	Clerical	2	\$27.33	\$54.67	Clerical	20	\$27.33	\$535.73		
Total Labor	3,040		\$151,530.87	Total Labor	777		\$40,541.67	Total Labor	2,263		\$110,989.20		
OVERHEAD	180.00%		\$272,755.56	OVERHEAD	180.00%		\$72,975.00	OVERHEAD	180.00%		\$199,780.56		
DPERATING MARGIN	15%		\$63,642.96	OPERATING MARGIN	15.00%		\$17,027.50	OPERATING MARGIN	15.00%		\$46,615.46		
TOTAL CFA BASIC SERVIO	CES PHASES I&II		\$487,929.39	SUBTOTAL CFA PHASE I	PER		\$130,544.17	SUBTOTAL CFA PHASI	E II DESIGN SERV	ICES	\$357,385.22		

#### 2013 Fort Bend County Mobility Program

Fort Bend County Project No. 13106

Sponsor: Fort Bend County

FM 762 Extension/10th Street from 90A (Jackson Street) to Clay Street

Consultant: Cobb, Fendley & Associates, Inc.

	Manhour Estimate												
Task	Principal	Project Manager	Senior Engineer	Project Engineer III	Project Engineer I	Senior Technician	CAD Operator	RPLS	3-Man Crew	Survey Tech I	Utility Specialist	Clerical	Total Hours
Project Management		l											
Project kick-off meeting (1)	0	4	4	0	0	0	0	0	0	0	0	0	8
Attend status meetings (6)	0	16	8	0	8	0	0	0	0	0	0	0	32
Prepare invoice (monthly) (9)	0	8	0	0	0	0	0	0	0	0	0	8	16
Update project status (9)	0	8	0	0	8	0	0	0	0	0	0	0	16
Project coordination (project staff & subs)	0	48	16	8	16	0	0	0	0	0	0	0	88
Total Project Management*	0	84	28	8	32	0	0	0	0	0	0	8	160
* THE PROJECT MANAGEMENT HOURS ARE DISTRIBUTED AT 25% TOWARDS EACH SUBMITTALIPHASES													
PRELIMINARY ENGINEERING REPORT UPDATE- PER (30%)													
Data collection	0	0	0	0	4	4	0	0	0	0	0	0	8
Conduct field visits	0	4	2	0	2	0	0	0	0	0	0	0	8
Review existing condition drainage area boundaries, calculations, and models and update as necessary to include pre-	0	8	8	0	8	0	0	0	0	0	0	0	24
Revise proposed condition drainage areas to include future roadway in different location	0	4	8	16	16	0	16	0	0	0	0	0	60
Revise proposed condition hydrologic calculations	0	4	8	16	16	0	16	0	0	0	0	0	60
Create new alternatives for proposed condition storm sewer(s) and or ditches	0	4	16	24	8	8	8	0	0	0	0	0	68
Create new alternatives to mitigate flow increases and water surface elevation impacts to receiving outfall locations	0	4	24	16	16	0	8	0	0	0	0	0	68
Updated Drainage Letter Report	0	8	8	24	8	0	16	0	0	0	0	0	64
Typical sections	0	2	0	0	0	0	4	0	0	0	0	0	6
Horz/Vert alignments	0	3	0	2	16	16	0	0	0	0	0	0	37
Schematic Layout/ 30% Plan production	0	2	0	2	16	16	24	0	0	0	0	0	60
Cross sections	0	2	0	0	0	16	0	0	0	0	0	0	18
Traffic Engineering (Traffic Signal at 90 A & Clay Street including TCP phasing)	0	2	0	4	2	16	16	0	0	0	0	0	40
Roundabout feasibility at Clay Street intersection	0	2	0	4	2	16	16	0	0	0	0	0	40
Public & Private Utility coordination & research	0	2	0	0	8	0	0	0	0	0	8	0	18
Utility adjustment, relocation & redesign (W & WW analysis for conflicts, relocation, upgrade/upsizing)	0	2	0	8	8	8	8	0	0	0	0	0	34
UPRR Coordination & Preparation of Exhibit "A"	0	4	4	16	16	16	8	0	0	0	0	0	64
Construction cost estimate	0	2	0	0	8	0	0	0	0	0	0	0	10
Compile the Updated Preliminary Engineering Report/Exhibits/Charts	0	4	4	2	8	8	16	0	0	0	0	0	42
QA/QC	4	0	4	0	0	0	0	0	0	0	0	0	8
Subtotal PER/30% Submittal	4	84	93	136	170	124	156	0	0	0	8	2	777
Final Design - 70% submittal													
Refine horz/vert alignments	0	4	2	4	4	8	0	0	0	0	0	0	22
Drainage design, Drainage Area Map	0	1	4	4	8	8	8	0	0	0	0	0	33
Utility research, adjustment, relocation	0	1	0	0	3	4	8	0	0	0	8	0	24
Cover sheet/Index Sheet (2 Sheets)	0	1	0	0	0	0	4	0	0	0	0	0	5
Typical sections (1 Sheets)	0	1	0	0	0	3	4	0	0	0	0	0	8
Layout sheet (1 Sheets)	0	1	0	0	2	1	4	0	0	0	0	0	8

		During	C	During	Desires	Camian	CAD		2 M	C	Liette		Total
	Principal	Project Manager	Senior Engineer	Project Engineer III	Project Engineer I	Senior Technician	CAD Operator	RPLS	3-Man Crew	Survey Tech I	Utility Specialist	Clerical	Total Hours
Task		1 lariagei	Lingilicei	Liigineer iii	Liigineer	recimician	Operator		Ciew	100111	эресіанія		110013
Plan & profiles sheets Street(9) (Roadway)	0	8	8	8	16	32	48	0	0	0	0	0	120
Plan & profiles sheets Street(10) (W & WW)	0	8	8	8	16	16	24	0	0	0	0	0	80
Intersection Plan & profiles and detail sheets (17)	0	8	8	8	16	16	24	0	0	0	0	0	80
Traffic control plan including temporary signal at US 90A	0	4	0	12	0	16	24	0	0	0	0	0	56
Traffic signal at US 90A (Existing & Proposed Condition)	0	4	4	8	16	24	24	0	0	0	0	0	80
Traffic signal at Clay Street (Proposed Condition)	0	4	0	4	8	8	16	0	0	0	0	0	40
Roundabout Preliminary design at Clay Intersection	0	8	0	4	8	16	24	0	0	0	0	0	60
RR Exhibits, General Notes & Miscellaneous Details	0	8	0	8	0	16	32	0	0	0	0	0	64
Cross sections	0	4	0	0	28	40	8	0	0	0	0	0	80
Signing & Pavement Marking	0	2	0	8	4	8	8	0	0	0	0	0	30
Misc.Details (Retaining Wall layout, railing, fencing)	0	4	4	8	8	8	8	0	0	0	0	0	40
Quantities	0	2	0	0	16	8	0	0	0	0	0	0	26
Cost Estimates	0	2	0	0	6	0	0	0	0	0	0	0	8
QA/QC	5	0	5	0	0	0	0	0	0	0	0	0	10
Subtotal 70% Submittal	5	96	50	86	167	232	268	0	0	0	8	2	914
Final Design - 95% submittal					T								
Cover sheet/Index Sheet (2 Sheets)	0	0	0	0	0	2	2	0	0	0	0	0	4
General notes/Special Provisions Specifications (2 Sheets)	0	2	0	0	0	0	2	0	0	0	0	0	4
Typical sections (1 Sheets)	0	1	0	0	0	1	1	0	0	0	0	0	3
Layout sheet (1 Sheets)	0	2	0	0	0	0	2	0	0	0	0	0	4
Drainage design, on-site and off-site Drainage Area Map	0	2	2	4	0	16	16	0	0	0	0	0	40
Plan & profiles sheets (9) (Roadway)	0	8	4	4	0	16	36	0	0	0	0	0	68
Plan & profiles sheets (10) (W & WW)	0	8	0	8	16	8	16	0	0	0	0	0	56
Plan & profiles and intersection detail sheets (12) Intersections	0	4	0	8	16	16	16	0	0	0	0	0	60
Utility Design, adjustment, relocation	0	8	8	8	8	24	24	0	0	0	0	0	80
Traffic control plan including temporary signal at US 90A	0	2	0	2	8	0	4	0	0	0	0	0	16
Traffic signal at US 90A (Existing Condition)	0	4	4	16	0	16	16	0	0	0	0	0	56
Traffic signal at US 90A (Proposed Condition)	0	4	4	8	4	12	16	0	0	0	0	0	48
Stormwater pollution prevention plans	0	2	2	0	4	8	8	0	0	0	0	0	24
Signing & pavement markings (5 sheets)	0	4	0	4	8	0	24	0	0	0	0	0	40
RR Crossing Details	0	4	0	4	8	8	16	0	0	0	0	0	40
Misc.Details (Retaining Wall layout, railing, fencing)	0	4	4	8	8	8	8	0	0	0	0	0	40
Cross sections	0	2	0	0	16	24	8	0	0	0	0	0	50
Quantities	0	2	0	0	16	8	0	0	0	0	0	0	26
Cost Estimates	0	2	0	0	6	0	0	0	0	0	0	0	8
Prepare project manual (specifications, bid forms)	0	8	16	0	8	0	0	0	0	0	0	8	40
QA/QC	8	0	8	0	0	0	0	0	0	0	0	0	16
Subtotal 95% Design Phase Submittal	8	90	58	76	132	167	215	0	0	0	0	10	755
Bid-Ready 100% - Final Submittal													
Cover sheet/Index Sheet (2 Sheets)	0	0	0	0	0	0	1	0	0	0	0	0	1
General notes/Special Specifications & Special Provisions (3 Sheets)	0	4	2	2	0	0	0	0	0	0	0	0	8
Typical sections (3 Sheets)	0	1	0	0	0	2	2	0	0	0	0	0	5
Layout sheet (2 Sheets)	0	0	0	0	0	0	2	0	0	0	0	0	2
Drainage Comments	0	8	8	16	8	0	8	0	0	0	0	0	48
								_					

Task	Principal	Project Manager	Senior Engineer	Project Engineer III	Project Engineer I	Senior Technician	CAD Operator	RPLS	3-Man Crew	Survey Tech I	Utility Specialist	Clerical	Total Hours
Plan & profiles (9)	0	8	8	0	8	16	16	0	0	0	0	0	56
Plan & profiles and intyersection detail sheets (12)	0	8	4	0	8	16	24	0	0	0	0	0	60
Utility Design, adjustment, relocation	0	8	0	0	0	16	24	0	0	0	0	0	48
Traffic control plan including temporary signal at US 90A	0	4	0	0	0	4	16	0	0	0	0	0	24
Traffic signal at US 90A (Existing & Proposed Condition)	0	4	0	0	0	4	8	0	0	0	0	0	16
Cross sections	0	4	0	0	0	40	8	0	0	0	0	0	52
Stormwater pollution prevention plans	0	0	0	4	4	8	8	0	0	0	0	0	24
Signing & pavement markings (15 sheets)	0	I	0	3	6	8	16	0	0	0	0	0	34
RR Exhibits Final Submittal	0	4	0	0	4	8	8	0	0	0	0	0	24
Agency approvals (TxDOT, FBC Drainage District, TDLR)	0	I	0	0	8	0	0	0	0	0	0	0	9
Compile standard Details/Misc	0	4	4	4	8	8	8	0	0	0	0	0	36
Quantities	0	1	0	0	8	8	0	0	0	0	0	0	17
Cost Estimates	0	2	0	0	8	0	0	0	0	0	0	0	10
Prepare complete project manual (specs, bid forms)	0	4	4	8	8	0	0	0	0	0	0	4	28
100% Sign & Sealed Bid ready Package	0	2	2	0	0	4	8	0	0	0	0	0	16
QA/QC	8	0	8	0	0	0	0	0	0	0	0	0	16
Subtotal 100% Bid Ready Plans - Final Submittal	8	68	40	37	78	142	157	0	0	0	0	4	534
Contract/Bidding													
Attend Pre-Bid & Pre-Con Meeting	0	4	0	4	0	0	0	0	0	0	0	0	8
Questions & Addenda	0	8	4	8	16	0	0	0	0	0	0	2	38
Tabulation & Recommendation of Bid	0	4	0	0	8	0	0	0	0	0	0	2	14
Subtotal Contract/Bid	0	16	4	12	24	0	0	0	0	0	0	4	60
Subtotal Phase II Design Phase & Contract/Bidding	21	270	152	211	401	541	640	0	0	0	8	20	2263
TOTAL HOURS PER, FINAL DESIGN & BIDDING	25	354	245	347	571	665	796	0	0	0	16	22	3040

#### **SCOPE OF WORK for SURVEYING SERVICES**

#### Re: 10<sup>th</sup> Street Extension From US90A to Clay Street

Limit of Survey is shown in the table below:

Street	From	То	Length (LF)	Total (LF)
10 <sup>th</sup> Street	US90A	Clay Street	3,800	
Total				3,800

Items for surveying services for the above referenced project.

Item	Services
Item-1	Updated Abstract Map
Item-2	Prepare Existing/Proposed ROW Map
Item-3	Parcel Exhibits and Legal Descriptions
Item-4	Additional Design Surveying Needs (Approximation)
Item-5	Construction Baseline Staking (Optional)

Detail of scope of above mentioned services/Items are described below:

#### **Item-1: Updated Abstract Map**

Deed Research will be performed, to obtain existing ownership documentation for all proposed right-of-way acquisition tracts within the proposed right-of-way corridor. A strip map will be prepared with ownership notations containing owner's name and deed recording information.

#### **Item-2: Prepare Existing/Proposed ROW Map**

Boundary Survey will be done along alignment of proposed 10<sup>th</sup> Street right-of-way corridor from US90A to Clay Street as shown in the attached exhibit to define existing and proposed Right-of-way (ROW) map of the said road. Survey will comply with Category 1B, Condition 2 survey of the latest TSPS Manual requirements as applicable/feasible. Horizontal and vertical controls will be updated and tied to existing project controls, both horizontal and vertical. In conformance, the scope of work will include the following:

- 1. Searching and surveying monuments for establishing existing ROW and property lines along the project corridor.
- 2. Abstracting and deed research for existing road ROW and properties overlapping project corridor including adjoining tracts and recorded subdivisions.
- 3. Preparing plat map drawing for existing/ proposed ROW including bearing & distances, abstracting information of existing right-of-way & adjoining properties.

The deliverables will be signed and sealed existing ROW maps in scale of 1"=40'.

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#### **Item-3: Parcel Exhibits and Legal Descriptions**

Boundary survey will be performed for preparing parcel plat and metes and bounds description for acquiring an estimated 45 Right-of-way parcels in reference to this project if required for acquiring ROW for the proposed road.

Survey will comply with Category 1A, Condition 2 survey of the latest TSPS Manual requirements as applicable/feasible. Horizontal and vertical controls will be tied to existing project control. Scope of work will include the following:

- 1. Review deeds as necessary
- 2. Survey all aboveground visible improvements on the existing tract, including buildings, pavements, fencing, etc.
- 3. Preparing plat map drawing for each parcel4. Preparing metes and bound description for the parcel
- 5. Map check closure for the parcel
- 6. Setting the parcel on the ground as appropriate

The deliverables will be signed and sealed parcel plat, field notes and supporting last deed of record for each parcel.

#### Item-4: Additional Design Surveying Needs (Estimate)

Additional Topographic Surveying will be performed for drainage study and various design needs. This fee is approximated, based on existing alignment. Fee may need to be updated if alignment changes.

#### Item-5: Construction Baseline Staking (Optional Service)

Perform construction staking, to establish centerline alignment on the ground, as well as staking proposed right-of-way limits at a minimum of 500-foot intervals.

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#### **FEE AND SCHEDULE:**

Estimated fees and schedule for all the Items are listed below:

Item	Services	Fee (lump sum)	Schedule		
Item-1	Updated Abstract Map	\$10,688.00	30 days		
Item-2	Prepare Existing/Proposed ROW Map	\$32,600.00	60 days		
Item-3	Parcel Exhibits and Legal Descriptions	\$ 2,800.00/parcel	TBD		
Item-4	Additional Design Survey Needs	\$15,000 (Estimate)	TBD		
Item-5	Construction Baseline Staking (Optional Service)	\$9,500.00	TBD		

<sup>\*</sup> days are in calendar days; all days are concurrent.
^ total fees for Item-3 and Item-4 will be determined once number of parcels and acreage for pond are decided



# All-Terra Engineering, Inc.

## Geotechnical Engineering \* Construction Materials Testing

March 5, 2021

Cobb Fendley 13430 NW Freeway, Suite 1100 Houston, Texas 77040

Attn: Mr. Mahmoud Salehi, P.E.

Vice President

Re: Proposal

Geotechnical Investigation Proposed 10<sup>th</sup> Street Extension

US 90A to Clay Street Project No. 13106 Richmond, Texas

All-Terra Proposal No.: APE21-788

Dear Mr. Salehi:

**All-Terra Engineering, Inc. (All-Terra)** appreciates the opportunity to provide this proposal to perform a geotechnical investigation for the above referenced project. This proposal outlines our understanding of the scope of services to be performed by All-Terra for this project and provides an estimate of a lumpsum fee for our services.

#### A. PROJECT INFORMATION

It is our understanding that an extension to 10<sup>th</sup> Street had been proposed for design and construction by Fort Bend County. The roadway project starts at US 90A at the south end to Clay Street at the north end. The proposed roadway project includes the construction of a 4-lane divided roadway (2 lanes in each direction) with curb and gutter drainage system as well as the associated underground utilities for water, sewer, and storm. The purpose of the geotechnical investigation will be to determine the subsoil groundwater and conditions within the project area provide data/parameters/recommendations that can be used for the construction and design of the proposed roadway extension and the associated underground utilities.

Proposal No. APE21-788 Proposed 10<sup>th</sup> Street Extension Project No. 13106 US 90A to Clay Street Richmond, Texas March 5, 2021

#### **B. SCOPE OF SERVICES**

Based upon our understanding of the project requirements, it is proposed that the scope of work for the geotechnical investigation consists of the following tasks:

- Drill/sample a total of 8 geotechnical borings to a depth of 20 feet beneath the surface within the length of the proposed roadway extension as shown on the attached Plates 1 and 2. Pavement coring will be needed prior to drilling and sampling of the geotechnical borings. Thicknesses of the pavement layers will be measured and recorded as well. GPS coordinates of the actual boring locations will be obtained for documentation and inclusion on the boring logs of the report.
- Continuously sample each boring continuously to a depth of 12 feet and intermittently thereafter, with both disturbed (cohesionless soils) and relatively undisturbed (cohesive soils) samples being obtained, as applicable.
- Measure the depth to groundwater during drilling, approximately 10 minutes after the water is initially encountered, as applicable, and within 30 minutes after the completion of drilling.
- Backfill the boreholes with cement grout after the completion of the drilling activities.
- Clearly mark each boring location and coordinate with the project's surveyors to arrange for obtaining boring location survey elevations, stationing, and offset distances, as applicable.
- Perform laboratory testing on soil samples obtained such as moisture content tests, unit weight determinations, Atterberg limits tests, tests to determine the percent soil particles passing a No. 200 sieve, dry density tests, and unconfined compression tests, moisture-density relationship test of soils (Standard Proctor), and California Bearing Ratio (CBR) of soils in order to define soil classifications and physical soil properties of the site soils.
- Analyze the laboratory test data to define the engineering characteristics of each soil type.
- Prepare boring logs and soil profile based upon the results of laboratory tests and visual soil classifications.
- Perform a desktop review of the potential presence of known surface faults within the project area.



Proposal No. APE21-788 Proposed 10<sup>th</sup> Street Extension Project No. 13106 US 90A to Clay Street Richmond, Texas March 5, 2021

- Perform engineering analyses as necessary to develop recommendations pertaining
  to potential uplift of underground structures due to upward acting hydrostatic
  pressures caused by groundwater conditions, lateral earth pressures on
  underground structures, dewatering requirements for excavations, utility trench
  shoring and bracing requirements, OSHA soil type classifications pertinent to trench
  shoring and bracing design, excavation/backfill requirements, and utility bedding
  requirements.
- Perform pavement design analyses (rigid and flexible pavements) for the proposed roadway extension using the requirements and guidelines of the American Association of State Highway and Transportation Officials (AASHTO) "AASHTO Guide for Design of Pavements" as well as the requirements and guidelines of Fort Bend County.
- Submit 1 copy and a pdf file of a report that presents the results of the geotechnical engineering study. The report will be prepared and sealed by a Licensed Professional Engineer trained and experienced in the practice of geotechnical engineering.

#### C. CONDITIONS

If there are any other restrictions, unusual circumstances, or special requirements regarding the site or this proposed geotechnical study, the Client shall communicate these to All-Terra prior to our commencing our field activities.

#### D. SCHEDULE

Our field investigation assumes that we will have the right-of-entry to the project area and that the boring locations will be readily accessible and be drilled utilizing a truck mounted drilling rig. We can initiate our field operations within several working days following authorization to proceed, weather permitting. We anticipate completion of our services and submittal of our report within 2 to 3 weeks after the completion of drilling.

#### **E. ESTIMATED COST**

For the scope of services outlined within this proposal, we estimate a total cost of about **\$16.967.00**. The breakdown of the estimated cost is as follows:



ltem	Estimated Quantity	Unit	Unit Price	Estimated Cost
Field Activities:				
Mobe/demobe of drill rig	1	Lui	mp Sum	\$ 300.00
Drilling/sampling of 8 borings to 20 feet	160	feet	\$ 18.00	\$ 2,880.00
Locate/identify/mark borings by graduate engineer	2	hours	\$ 85.00	\$ 170.00
Coring of existing pavement	8	each	\$ 80.00	\$ 640.00
Field logging/supervising coring/drilling by field technician	16	hours	\$ 65.00	\$ 1,040.00
Limited traffic control (cones, signs, technician as flagman during coring and drilling)	1	Lui	mp Sum	\$ 800.00
Grouting of roadway boreholes after drilling	160	feet	\$ 8.00	\$ 1,280.00
Vehicle Charge	18	hours	\$ 7.50	\$ 135.00
Sub-Total				\$ 7,245.00
Laboratory Testing:				
Atterberg Limits (ASTM D4318)	28	each	\$ 60.00	\$ 1,680.00
% Pass No. 200 Sieve (ASTM D1140)	28	each	\$ 46.00	\$ 1,288.00
Moisture Content (ASTM D2216)	64	each	\$ 9.00	\$ 576.00
Unconfined Compression (ASTM D2166)	12	each	\$ 44.00	\$ 528.00
Standard Proctor Test (ASTM D698)	1	each	\$ 175.00	\$ 175.00
California Bearing Ratio, 3-Point (ASTM D1883)	3	each	\$ 185.00	\$ 555.00
Sub-Total				\$ 4,802.00
Engineering, coordination, supervision, analysis, a	and report pro	eparation	<b>1*:</b>	
Senior engineer, P.E.	10	hours	\$ 150.00	\$ 1,500.00
Graduate engineer/EIT	36	hours	\$ 85.00	\$ 3,060.00
Clerical/Drafting Support	6	hours	\$ 60.00	\$ 360.00
Sub-Total	\$ 4,920.00			
TOTAL FOR THE GEOTECHNICAL INVESTIGATION				\$ 16,967.00

<sup>\*</sup> includes desktop review of surface faults within the project area.



Proposal No. APE21-788 Proposed 10<sup>th</sup> Street Extension Project No. 13106 US 90A to Clay Street Richmond, Texas March 5, 2021

#### F. CLOSURE

We appreciate the opportunity to offer our services on your project. We look forward to serving you, and welcome any questions or comments you may have concerning this proposal or our services.

Respectfully submitted, ALL-TERRA ENGINEERING, INC. (TBPE F-9770) Bonni F. Musngi, Jr., P. E. Senior Geotechnical Engineer **ACCEPTANCE AND AUTHORIZATION** Upon acceptance, this proposal constitutes the agreement between All-Terra and you, the Client. You have the option to accept or reject this agreement, or to propose modification to any element of the agreement. Agreed to this\_\_\_\_\_\_, 2021 By: \_\_\_\_\_ (Signature) (Printed Name) (Firm Name) (Title or Position) Attachments: Plates 1 and 2 - Proposed Boring Locations



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## Geotechnical borings proposed for the study.



**Proposed 10th Street Extension** 

US 290 A to Clay Street Richmond, Texas 77469 Proposal No.:

APE21-788

PROPOSED LOCATIONS OF BORINGS

Plate No. 1

6200 Rothway, Ste 140 Houston, Texas 77040

Date: 03/02/21



- Geotechnical borings proposed for the study.



Proposed 10th Street Extension

US 290 A to Clay Street Richmond, Texas 77469 Proposal No.: APE21-788

Date: 03/02/21

PROPOSED LOCATIONS OF BORINGS

Plate No. 2

6200 Rothway, Ste 140 Houston, Texas 77040