

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

**AMENDMENT TO AGREEMENT FOR
PROFESSIONAL ENGINEERING SERVICES**

THIS 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 CP&Y, Inc., (hereinafter “Consultant”), 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 October 12, 2021, for improvements to Watts Plantation Road, under the Fort Bend County Project No. 20209, (hereinafter “Agreement”) pursuant to SOQ 14-025; and

WHEREAS, the parties desire to amend the Agreement to allow Consultant to provide additional Services under the Agreement and to increase the maximum compensation amount.

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

1. County shall pay Consultant an additional amount not to exceed two hundred eighteen thousand nine hundred ninety-seven and 00/100 dollars (\$218,997.00) to perform the additional Services, as described in Consultant’s Proposal, attached hereto as Exhibit “A-1” and incorporated herein for all purposes.
2. The Maximum Compensation payable to Consultant for all Services rendered is hereby increased to an amount not to exceed seven hundred sixty-one thousand five hundred eighty-nine and 00/100 dollars (\$761,589.00), authorized as follows:

 \$542,592.00 under the Agreement; and
 \$218,997.00 under this Amendment.
3. In no case shall the amount paid by County for all Services under the Agreement and this Amendment exceed the Maximum Compensation without a written agreement executed by the parties.
4. 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.

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

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 final party.

FORT BEND COUNTY

CP&Y, INC.

KP George, County Judge

Authorized Agent – Signature

Date

Authorized Agent – Printed Name

ATTEST:

Title

Laura Richard, County Clerk

Date

APPROVED:

J. Stacy Slawinski, P.E., County Engineer

APPROVED AS TO LEGAL FORM:

Darius R. Porter
Assistant County Attorney
General Counsel Division

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$ _____
to accomplish and pay the obligation of Fort Bend County under this contract.

Robert Ed Sturdivant, County Auditor

Attachment:

Exhibit A-1 – Consultant's Proposal

I:\AGREEMENTS\2025 Agreements\Engineering\CP&Y, Inc. (21-Eng-101160-A1)\Amendment to Agreement for Professional Engineering Services -- CP&Y, Inc..docx. (DRP 04/23/25)

EXHIBIT A-1



PROPOSAL FOR ADDITIONAL SERVICES SCOPE OF SERVICES

1. PROJECT DESCRIPTION

CP&Y, Inc. dba STV Infrastructure (ENGINEER) and its sub-consultants will provide SUPPLEMENTAL professional engineering services to Fort Bend County (County) for the rehabilitation of the existing two 12-ft wide lane asphalt roadway along Watts Plantation Road from Sienna Parkway to Knight Road (the Project), approximately 7,700 feet.

R.O.W. acquisition will be pursued adjacent to the Project in conjunction with re-alignment of the existing roadway (between STA. 129+00 to 154+00) to maintain ditches for offsite drainage flows and to minimize floodplain mitigation and wetland disturbance. The new roadway will include a raised concrete median with dedicated left-turn lanes for access to the existing street intersections. This new design will require re-imagining the traffic control plans to provide sufficient space for the road widening. These services will require coordination with the Fort Bend County Drainage District and Compass Environmental Solutions. An arborist has been included as part of this effort to provide a plan for tree protection and removal during construction.

In addition, it is the County's desire to include a concrete sidewalk on the north side of the Project and street light illumination along the road. The already prepared plans, specifications, and cost estimate will be updated to incorporate both of these components into the final design.

The ENGINEER has also been asked to review the design and provide the best engineering value for different scenarios of the Project. Several of these scenarios include the reduction of pavement width, where appropriate, via a raised median in lieu of a two-way left-turn lane, profile elevation modifications, and the implementation of retaining walls along the Project with the goal of fitting the new sidewalk within the existing right-of-way. This review analyzes different alternatives for the Project to reduce construction costs.

In summary, the supplemental engineering services includes tree protection services, median/roadway design modifications, sidewalk design, and street illumination. The alternative review includes geotechnical investigation and retaining wall layouts along with their respective costs.

2. ADDITIONAL SERVICES

2.1 GEOTECHNICAL INVESTIGATION (BY OTHERS)

2.1.1 Project Management

The ENGINEER shall coordinate with its sub-consultant, and monitor conformance to the scope regarding the budget, schedule, and progress of the work. The ENGINEER shall coordinate with the geotechnical engineer on details for wall design and soil stabilization analysis.



2.1.2 Geotechnical Scope for Retaining Wall Design (Bore Samples)

Refer to separate proposal, Exhibit C. The task includes a geotechnical investigation with laboratory testing for soil bore samples at the retaining wall locations outside of the wetland area. **Prior remaining budget will be incorporated into this task (see Exhibit B).**

2.2 PROJECT SURVEY (BY OTHERS)

2.2.1 Project Management

The ENGINEER shall coordinate with its sub-consultants, and monitor conformance to the scope regarding the budget, schedule, and progress of the work.

2.2.2 R.O.W. Acquisition Parcels (anticipated)

Refer to separate proposal, Exhibit D. The ENGINEER shall prepare parcel maps and metes & bounds descriptions for an estimated eight (8) parcels. This task will be performed in conjunction with Task 2.2.1.c from the original contract which accounts for fourteen (14) parcels. Therefore, the estimated total number of parcels is twenty-two (22). The final boundaries of the proposed R.O.W. will be determined at the 95% design level, after the County agrees with the location of the proposed sidewalk and the revised edge of pavement. These two components of the Project design are outlined in Tasks 2.7 and 2.8, respectively, of this agreement. The parcel surveys will include:

- i. Field work to support parcel development
- ii. Parcel map
- iii. Metes & Bounds descriptions
- iv. Setting corners of parcel

2.3 ARBORIST (BY OTHERS)

2.3.1 Project Management

The ENGINEER shall coordinate with its sub-consultants, and monitor conformance to the scope regarding the budget, schedule, and progress of the work.

2.3.2 Tree Protection Plan

Refer to separate proposal, Exhibit E. This task will only be engaged at the 95% design level, to include the following:

- a) Field evaluation/site visit to determine location of each tree possibly impacted by the Project within STA 129+00 to 135+50.
- b) Any trees not shown by the survey will be identified and included in this evaluation.



- c) Set of CAD drawings (1-2 sheets) along with electronic file in .dwg format.

2.4 LEVEE WALL (ALTERNATIVE ANALYSIS)

2.4.1 Project Management

The ENGINEER shall coordinate with the County's Program Manager, manage the efforts of the ENGINEER's personnel, assign manpower, delegate responsibilities, monitor conformance to the scope regarding the budget and schedule, and direct the progress of work. The ENGINEER will schedule and attend progress meetings as needed. The ENGINEER shall prepare and deliver meeting record memorandum of decisions and action items after each meeting in a timely manner.

2.4.2 Preliminary Wall Layout and Investigation

The ENGINEER will perform preliminary alternative retaining wall analysis, to include the following:

- a) Develop preliminary retaining wall layouts and grading to be included in the production of 3 plan & profile sheets.
- b) The ENGINEER will coordinate with the geotechnical sub-consultant to investigate wall structure types including MSE, spread-footing, sheet pile and drilled shaft in consideration with construction sequencing, temporary shoring, inundation and cost.
- c) The ENGINEER will provide a recommendation of wall type to be used for consideration and opinion by the County.
- d) Preliminary cost estimate for each wall type.
- e) The ENGINEER will meet with the County's Program Manager to coordinate design, production, and decision-making.

2.5 BAYOU WALL DESIGN (ALTERNATIVE ANALYSIS)

2.5.1 Project Management

The ENGINEER shall coordinate with the County's Program Manager, manage the efforts of the ENGINEER's personnel, assign manpower, delegate responsibilities, monitor conformance to the scope regarding the budget and schedule, and direct the progress of work. The ENGINEER will schedule and attend progress meetings as needed. The ENGINEER shall prepare and deliver meeting record memorandum of decisions and action items after each meeting in a timely manner.

2.5.2 Preliminary Wall Layout and Investigation

The ENGINEER will perform preliminary alternative retaining wall analysis, to include the following:

- a) Develop preliminary retaining wall layouts and grading to be included in the



production of 2 plan & profile sheets.

- b) The ENGINEER will coordinate with the geotechnical sub-consultant to investigate wall structure types including MSE, spread-footing, sheet pile and drilled shaft in consideration with construction sequencing, temporary shoring, inundation and cost.
- c) The ENGINEER will provide a recommendation of wall type to be used for consideration and opinion by the County.
- d) Preliminary cost estimate for each wall type.
- e) The ENGINEER will meet with the County's Program Manager to coordinate design, production, and decision-making.

2.6 MISCELLANEOUS WALL DESIGNS (ALTERNATIVE ANALYSIS)

This task considers the retaining wall locations at STA 106+00 to 107+25, LT; STA 113+00 to 116+00, RT; STA 120+50 to 121+75 RT; STA 122+25 to 125+70, RT; STA 160+25 to 176+70, LT; STA 161+00 to 170+00, RT totaling 3,440 LF of retaining wall. Spread-footing walls have been selected for these locations since the maximum height is 4-ft.

2.6.1 Project Management

The ENGINEER shall coordinate with the County's Program Manager, manage the efforts of the ENGINEER's personnel, assign manpower, delegate responsibilities, monitor conformance to the scope regarding the budget and schedule, and direct the progress of work. The ENGINEER will schedule and attend progress meetings as needed. The ENGINEER shall prepare and deliver meeting record memorandum of decisions and action items after each meeting in a timely manner.

2.6.2 Preliminary Wall Layout

The ENGINEER will perform preliminary alternative retaining wall analysis, to include the following:

- a) Develop preliminary retaining wall layouts and grading to be included in the production of 16 plan & profile sheets.
- b) Structural details and TxDOT standards for construction of these retaining walls.
- c) Preliminary cost estimate.
- d) Update the specifications.
- e) The ENGINEER will meet with the County's Program Manager to coordinate design, production, and decision-making.



2.7 SIDEWALK DESIGN

2.7.1 Project Management

The ENGINEER shall coordinate with the County's Program Manager, manage the efforts of the ENGINEER's personnel, assign manpower, delegate responsibilities, monitor conformance to the scope regarding the budget and schedule, and direct the progress of work. The ENGINEER will schedule and attend progress meetings as needed. The ENGINEER shall prepare and deliver meeting record memorandum of decisions and action items after each meeting in a timely manner.

2.7.2 Design Layout & Model

The ENGINEER shall provide design of a 5-ft wide sidewalk along the north side of the Project. Analyses of several alternatives consider the option of purchasing R.O.W. for the expansion of the roadway and sidewalk to be the most cost-efficient approach for the construction of the Project. The following will be performed:

- a) Update of the current Project design to reflect the new sidewalk and the proposed R.O.W. limits.
- b) Update of the proposed model to include the sidewalk.
- c) Update OPCC and specifications to include the sidewalk.
- d) The ENGINEER will meet with the County's Program Manager to coordinate design and decision-making.

2.7.3 Sheet Updates

The following sheets will be updated to reflect the new sidewalk:

- a) Typical sections sheets (4).
- b) Plan & profile sheets (20) and callouts.
- c) Driveway sheets to include ramp details at cross-streets. A total of 17 driveways will be impacted on the north of the Project.
- d) Cross-section sheets (26) to include the new vertical design.

2.7.4 Drainage

The ENGINEER will update the Oyster Creek modeling with the proposed box culvert extension to include the sidewalk expansion along the north. The new sidewalk necessitates drainage revisions for 17 driveways on the north of the Project. New grading will be performed as part of this task, as necessary, to accommodate the sidewalk. The ENGINEER will update the drainage report and associated calculations.



2.8 MEDIAN DESIGN

The current Project design proposes to expand the existing roadway to include a two-way left-turn lane along the middle of the road. The ENGINEER shall update the design to contain a raised concrete median with dedicated left-turn lanes at existing street intersections. The raised median along the middle of the road will replace the shared left-turn lane. Analyses of several alternatives consider the option of purchasing R.O.W. for the expansion of the roadway to be the most cost-efficient approach for the construction of the Project. The ENGINEER will meet with the County's Program Manager to coordinate design and decision-making. A new 70% construction drawing plan set, and cost estimate which includes the roadway updates will be submitted to the County for review. The following tasks will be performed in conjunction with the median design:

- 2.8.1 Update Model – An assessment of median openings other than the dedicated left-turn lanes will be made one time in coordination with the County's Program Manager to determine final locations.
- 2.8.2 Update Typical Sections (4 sheets).
- 2.8.3 Update Plan & Profile (20 sheets) and Cross-sections (26 sheets).
- 2.8.4 Update Drainage Design – Impacts Plan & Profile (20 sheets) and Project Drainage Area Maps (16 sheets).
- 2.8.5 Update Drainage Calculations (4 sheets) – The ENGINEER will update the drainage report and associated calculations.
- 2.8.6 Update TCP General Sheets (6).
 - a) Update TCP Phase I (10 sheets).
 - b) Update TCP Phase II (10 sheets).
 - c) Update TCP Phase III (1 sheet).
- 2.8.7 Update Pavement Markings (10 sheets).
- 2.8.8 Update SWPPP (10 sheets).
- 2.8.9 Update Cost Estimate.

2.9 STREET LIGHTING DESIGN

Any work outside of what is outlined and applicable under this task shall constitute negotiation with the County for payment of additional work performed.

2.9.1 Project Management

The ENGINEER shall coordinate with the County's Program Manager, manage the efforts of the ENGINEER's personnel, assign manpower, delegate responsibilities, monitor conformance to the scope regarding the budget and schedule, and direct the progress of work.



- a) Utility Company coordination – The ENGINEER shall coordinate with the appropriate governing electrical utility company all efforts involved to facilitate the installation of street light poles along the Project.

2.9.2 Design Updates Incorporation

The ENGINEER shall incorporate street light illumination along the Project by performing the following:

- a) Update of the current Project design construction sheets where necessary to reflect the proposed street light poles. This task shall be limited to plan view only.
- b) The ENGINEER will meet with the County's Program Manager to coordinate design and decision-making for light pole locations.

2.9.3 Layout Sheets

The ENGINEER shall produce PLAN layout sheets ONLY for street light illumination. The sheets shall only include the proposed location of the street light poles. The ENGINEER shall submit the sheets to the appropriate electrical utility company for approval. The layout sheets shall be prepared in a scale and paper size that is acceptable to the electrical company. However, all submittals are considered to be in electronic format, paper copies whether in color or black & white will NOT be submitted to the utility company as part of this agreement.

*The ENGINEER shall NOT include in the submittal or as part of this agreement, any electrical details in the form of diagrams or electrical calculations to the electrical utility company or to the County.

2.9.4 General Notes Sheet

The ENGINEER shall produce one sheet containing any general notes required by the utility company for approval.

2.9.5 General Lighting Evaluation

The ENGINEER shall perform a due diligence evaluation of the proposed street lighting plan. This evaluation shall be conducted in cooperation with the appropriate governing utility company.

*The appropriate governing utility company shall provide the final electrical details, if any, for the installation of the street light poles.

EXHIBIT B
SUMMARY OF COMPENSATION FOR SUPPLEMENTAL SERVICES



TASK DESCRIPTION	PROJECT MANAGER	PROJECT ENGINEER	STAFF ENGINEER	GRADUATE ENGINEER (EIT)	SENIOR CADD/ DESIGNER	CADD/ DESIGNER	CLERICAL/ ADMIN	TOTAL HOURS	TASK TOTAL
2. ADDITIONAL SERVICES									\$ 218,997.00
2.1 GEOTECHNICAL INVESTIGATION (BY OTHERS)									
2.1.1 PROJECT MANAGEMENT	2						1	3	\$ 507.00
2.1.2 GEOTECHNICAL SCOPE FOR RETAINING WALL DESIGN (BORE SAMPLES)	LUMP SUM - DETAIL PROVIDED UNDER SEPARATE PROPOSAL - SEE EXHIBIT C								\$ 24,519.00
*INITIAL FEE \$34,583.00 MINUS REMAINING BUDGET \$10,064.00 = \$24,519.00									
2.2 PROJECT SURVEY (BY OTHERS)									
2.2.1 PROJECT MANAGEMENT	2						1	3	\$ 507.00
2.2.2 R.O.W. ACQUISITION PARCELS (ANTICIPATED)	LUMP SUM - DETAIL PROVIDED UNDER SEPARATE PROPOSAL - SEE EXHIBIT D								\$ 20,400.00
2.3 ARBORIST (BY OTHERS)									
2.3.1 PROJECT MANAGEMENT	1						1	2	\$ 297.00
2.3.2 TREE PROTECTION PLAN	LUMP SUM - DETAIL PROVIDED UNDER SEPARATE PROPOSAL - SEE EXHIBIT E								\$ 3,360.00
2.4 LEVEE WALL (ALTERNATIVE ANALYSIS)									
2.4.1 PROJECT MANAGEMENT	2						2	4	\$ 594.00
2.4.2 PRELIMINARY WALL LAYOUT AND INVESTIGATION	2	20		28	8			58	\$ 8,896.00
2.5 BAYOU WALL (ALTERNATIVE ANALYSIS)									
2.5.1 PROJECT MANAGEMENT	2						2	4	\$ 594.00
2.5.2 PRELIMINARY WALL LAYOUT AND INVESTIGATION	2	20		28	8			58	\$ 8,896.00
2.6 MISCELLANEOUS WALL (ALTERNATIVE ANALYSIS)									
2.6.1 PROJECT MANAGEMENT	2						2	4	\$ 594.00
2.6.2 PRELIMINARY WALL LAYOUT	4	12		50	64			130	\$ 19,110.00
2.7 SIDEWALK DESIGN									
2.7.1 PROJECT MANAGEMENT	2						2	4	\$ 594.00
2.7.2 DESIGN LAYOUT & MODEL	2	3	8	16				29	\$ 4,308.00
2.7.3 SHEET UPDATES	4	4		40		52		100	\$ 13,808.00
2.7.4 DRAINAGE	8	4	24	12				48	\$ 7,604.00
2.8 MEDIAN DESIGN									
2.8.1 UPDATE MODEL	6	26		88		16		136	\$ 19,828.00
2.8.2 UPDATE TYPICAL SECTIONS		2				10		12	\$ 1,672.00
2.8.3 UPDATE PLAN & PROFILE AND CROSS-SECTION SHEETS	3	4		40		48		95	\$ 13,070.00
2.8.4 UPDATE DRAINAGE DESIGN	4	8		24		32		68	\$ 9,712.00
2.8.5 UPDATE DRAINAGE CALCULATIONS	1			8				9	\$ 1,290.00
2.8.6 UPDATE TCP GENERAL SHEETS	2		2	12		20		36	\$ 4,980.00
a. UPDATE TCP PHASE I		3	8	42		48		101	\$ 13,734.00
b. UPDATE TCP PHASE II		3	8	42		48		101	\$ 13,734.00
c. UPDATE TCP PHASE III			2		8			10	\$ 1,476.00
2.8.7 UPDATE PAVEMENT MARKINGS		1			8			9	\$ 1,352.00
2.8.8 UPDATE SWPPP		1			12			13	\$ 1,940.00
2.8.9 UPDATE COST ESTIMATE	3	8		20				31	\$ 4,738.00
2.9 STREET LIGHTING DESIGN									
2.9.1 PROJECT MANAGEMENT	10						1	11	\$ 2,187.00
a. UTILITY COMPANY COORDINATION	2	6						8	\$ 1,476.00
2.9.2 DESIGN UPDATES INCORPORATION	2			4		8		14	\$ 2,016.00
2.9.3 LAYOUT SHEETS	2	4				48		54	\$ 7,460.00
*EXCLUDES ELECTRICAL DETAILS									
2.9.4 GENERAL NOTES SHEET		2				6		8	\$ 1,144.00
2.9.5 GENERAL LIGHTING EVALUATION	4	10						14	\$ 2,600.00
*UTILITY COORDINATION TO PROVIDE FINAL ELECTRICAL DETAILS									
MANHOUR SUBTOTAL	74	141	52	454	108	336	12	1,101	
	7%	13%	5%	41%	10%	31%	1%		
LABOR RATE PER HOUR	\$210.00	\$176.00	\$150.00	\$135.00	\$147.00	\$132.00	\$87.00		
SUBTOTAL LABOR	\$15,540.00	\$24,816.00	\$7,800.00	\$61,290.00	\$15,876.00	\$44,352.00	\$1,044.00		\$170,718.00
TOTAL									\$218,997.00



Excellence in Engineering, Consulting, Testing and Inspection

August 12, 2024

**STV Inc.
11757 Katy Freeway, Suite 1540
Houston, Texas 77079**

Attn: Ms. Lindsey Jones, P.E.

**Re: Proposed Work Scope, Budget, and Schedule
Geotechnical Investigation
Proposed Watts Plantation Road Rehabilitation
from STA. 105+00 to STA. 108+50,
STA. 109+25 to STA. 112+50, and
STA. 147+00 to STA. 152+00
Fort Bend County (FBC) 2020 Mobility Project
Fort Bend County, Texas**

HTS Proposal No.: 23-00248 Revision 3

Dear Ms. Jones:

1.0 INTRODUCTION

In response to your request, HTS, Inc. Consultants (HTS) is pleased to submit this proposal to STV Inc. to perform a geotechnical investigation pertaining to the proposed roadway improvements to a portion of Watts Plantation Road in Fort Bend County, Texas.

HTS previously performed a geotechnical investigation (HTS Report No. 21-S-483, dated November 30, 2021) for the proposed improvements which included the rehabilitation of the existing 2 lane asphalt roadway along Watts Plantation Road from Sienna Parkway to Knight Road. The desired improvements require an evaluation of the existing pavement and repair where needed. Based on the information provided on December 8, 2023, and January 22, 2024, HTS understands the proposed roadway improvement will include construction of earth retaining walls from STA. 105+00 to STA. 108+50, STA. 109+25 to STA. 112+50, and STA. 147+00 and STA. 152+00. The retaining walls from STA. 105+00 to STA. 108+50 and STA. 109+25 to STA. 112+50 will be constructed by cutting the existing embankment slope. The retaining walls between STA. 147+00 and STA. 152+00 will be constructed on a portion of existing wetland in Old Creek Bayou which will include both cut and fill behind the wall. Based on the drawings provided, HTS understands that the maximum wall height is about 12 feet.

The purpose of this geotechnical investigation will be to evaluate existing subsurface condition and provide geotechnical design and construction recommendations for the proposed

retaining walls. The recommendation will include different wall options such as MSE wall, concrete wall with continuous spread footings, and sheet pile wall.

The remaining portions of this proposal present the proposed work scope, estimated costs, and an estimated schedule to complete the geotechnical investigation.

2.0 SCOPE OF WORK

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

- Drill and sample 6 geotechnical borings along the edge of existing pavement to a depth of 40 feet beneath the existing surface and 2 borings will be drilled within the wetland area to a depth of 25 feet beneath the existing surface.

Location	Number of Borings	Boring Depth (ft)	Total Footage (ft)
STA. 105+00 – STA. 108+50	2	40	80
STA. 109+25 – STA. 112+50	2	40	80
STA. 147+00 – STA. 152+00	2	40	80
Total	6	-	240

- Obtain both disturbed and relatively undisturbed soil samples continuously to a depth of 15 feet and intermittently thereafter.
- Measure the groundwater depth during drilling and after the completion of drilling.
- Mark the boring locations and obtain GPS coordinates for the surveyor's use in obtaining the boring locations, offsets, and elevations.
- Backfill the boreholes along the edge of pavement with grout and with soil cuttings within the wetland after the completion of the groundwater level measurements.
- Perform moisture content, Atterberg limits, percent soil particles passing a No. 200 sieve, and dry density of soils in order to define subgrade soil classifications and physical soil properties.
- Characterize the site subsoil and groundwater conditions and provide the results on the boring logs (using “gINT” LogWriter software).
- Perform engineering analyses in order to develop data, parameters, and recommendations that may be used for the design and construction of the proposed roadway. Engineering analyses will include the following items:
 - site preparation recommendations for embankment and retaining walls,
 - allowable bearing capacity of soil at the bearing depth for the retaining wall,

- effective friction angle for the fill behind the wall,
 - equivalent fluid pressures (with or without hydrostatic component) for active, at rest, and passive condition,
 - earth pressure coefficient for surcharge loads, if needed,
 - disregard depths for passive pressure development,
 - friction coefficient between concrete and soil,
 - backfill and drainage material specifications for the retaining walls,
 - dewatering requirements for excavations,
 - global stability analyses at the proposed retaining wall locations,
 - OSHA soil type classifications pertinent to trench shoring and bracing design, and
 - potential uplift of underground structures due to upward acting hydrostatic pressures caused by groundwater conditions, dewatering requirements, trench shoring and bracing requirements, and OSHA soil type classifications pertinent to trench shoring and bracing design.
- Perform settlement analyses (including time rate of settlement) of the embankment and foundation soils in areas with large fills.
 - Provide ground improvement recommendations to support the embankment load, if needed.
 - Perform pavement design analyses for the roadway and determine the required pavement section in accordance with American Association of State Highway and Transportation Officials (AASHTO) and Fort Bend County design guidelines and requirements for roadways.
 - Submit a pdf file of the final report that presents the results of the geotechnical investigation.

Note: Hard copies of the report will be provided upon request at an additional cost of \$30.00 per report.

3.0 ESTIMATED COST AND SCHEDULE

HTS' estimated cost to complete the scope of work, as defined in Section 2.0 above, is \$34,583.00 for the proposed roadway rehabilitation. The estimated cost is itemized in the attached Cost Estimate.

We estimate that about 7 to 8 weeks after receipt of the notice to proceed will be required to complete the geotechnical investigation and submit the report if no delays are encountered with respect to weather conditions. Once the boring locations are staked, Texas One-Call (Texas 811) will be notified for utilities clearance prior to our drilling

activities, typically 48 hours after applying for utilities clearance verification. Interim data, engineering analyses, and recommendations will be provided as necessary for the client's use in the design of the proposed roadway improvements.

4.0 CLOSING REMARKS

We appreciate the opportunity to offer our services to your project. Should you desire that we revise any portion of this proposal, we will be pleased to meet with you to discuss the revisions. We look forward to being of service to you.

Respectfully submitted,

HTS, Inc. Consultants



Jubair Hossain, Ph.D., P.E.
President

Attachments: Cost Estimate

AGREED TO THIS ____ DAY OF _____, 2024


FIRM: _____ TITLE: _____

SIGNATURE: _____

PRINTED NAME: _____

JH/rg

H:\Proposals All\Proposals-24\STVI-23-00248 Revision 3.doc

 416 Pickering Street Houston, Texas	PROJECT : 				PROPOSAL NO. : 23-00248 Rev 3		
	Watts Plantation Road - Roadway Rehabilitation						
	CALC. BY: JH	DATE : 8/12/2024	CHECKED BY: RG	DATE : 8/12/2024	PAGE NO.: 1 of 1		

COST ESTIMATE				
A)	Field Activities:	<u>Quantity</u>	<u>Unit Price</u>	<u>Estimated Cost</u>
	- Mobilization/demobilization of 2 drill rig	Lump Sum	\$ 1,000.00	\$ 1,000.00
	- Drill/sample 8 borings	260 feet	\$ 21.00	\$ 5,460.00
	- Layout borings	6 hours	\$ 60.00	\$ 360.00
	- Drilling supervision, logging of borings by technician	14 hours	\$ 60.00	\$ 840.00
	- Traffic control (tech as flagman - drilling)	16 hours	\$ 60.00	\$ 960.00
	- Grout borings after drilling (6 @ 40')	240 feet	\$ 10.00	\$ 2,400.00
Subtotal:				\$ 11,020.00
B)	Laboratory Testing:			
	- Atterberg limits (ASTM D-4138)	29 each	\$ 62.00	\$ 1,798.00
	- Water content (ASTM D-2216)	29 each	\$ 10.00	\$ 290.00
	- Unconfined compression test (ASTM D-2166)	15 each	\$ 50.00	\$ 750.00
	- % passing No. 200 sieve (ASTM D-1140)	25 each	\$ 55.00	\$ 1,375.00
	- Triaxial CU compression test (ASTM D-4767)	2 each	\$ 1,500.00	\$ 3,000.00
	- Crumb test (ASTM D-6572)	2 each	\$ 42.00	\$ 84.00
	- One dimensional consolidation test (ASTM D-2435)	3 each	\$ 361.00	\$ 1,083.00
	- UU Triaxial compression test (ASTM D-2850)	2 each	\$ 69.00	\$ 138.00
Subtotal:				\$ 8,518.00
C)	Engineering, Supervision, Analysis, and Draft/Final Report Preparation:			
	- Senior engineer, P.E.	5 hours	\$ 183.00	\$ 915.00
	- Project engineer, P.E.	90 hours	\$ 149.00	\$ 13,410.00
	- Engineering assistant	12 hours	\$ 60.00	\$ 720.00
Subtotal:				\$ 15,045.00
TOTAL FOR ROADWAY REHABILITATION =				\$ 34,583.00



December 6, 2024

Revised: March 24, 2025

Mr. Ricardo Manriquez, P.E.
CP&Y, Inc. dba STV Infrastructure
11757 Katy Freeway, Suite 1540
Houston, Texas 77079

Via email: ricardo.manriquez@stvinc.com

Re: Fort Bend County Watts Plantation Road
Fort Bend County, Texas

Dear Mr. Manriquez:

We are pleased to present this proposal for providing surveying services in connection with the above referenced project. Our proposed scope of services and associated fees are as follows:

- I. RIGHT-OF-WAY ACQUISITION PARCELS (TASK 108) \$20,400**
- Pape-Dawson to prepare parcel maps and metes & bounds descriptions for right-of-way acquisition parcels identified during design. The "Project Scope" provided to PD for Watts Plantation (project no. 20209) states eight (8) anticipated parcels under Section "Right of Way". The parcel surveys to include:
 - Field work to support parcel development
 - Parcel map
 - Metes and Bounds description
 - Setting corners of parcel
 - Pape-Dawson to complete the parcel maps and metes & bounds descriptions forty-five (45) days after identification of parcels and approval of proposed right-of-way. Parcel acquisitions with parcel map and metes & bounds description will be provided at a per unit rate (see below):
 - Eight (8) parcels at \$2,550 each = \$20,400
 - **This fee is subject to sales tax of 8.25%.**

THIS PROPOSAL ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *Additional services required by the client which may arise, and are not outlined above, to be compensated for on an hourly basis or negotiated to a lump sum fee.*
- ◆ *This proposal does not include any work outside the referenced property, unless specifically noted above.*

BASIS OF COMPENSATION

Pape-Dawson's compensation is a lump sum in the amount of **\$20,400** for the services identified above. This budget figure does not include any Direct Expenses (defined below) nor applicable sales tax on services. If this budget figure is exceeded, Pape-Dawson may request modification of this Agreement.

Direct Expenses include reproduction, travel, express mail, special deliveries, and subcontractor expenses related to these services. Direct Expenses include a 10% markup on cost.

AGREEMENT

The attached Terms and Conditions are incorporated into this Proposal by reference and become part of the agreement between the Client and Pape-Dawson by execution of this Proposal. If the terms of this Proposal are acceptable, please acknowledge such by signing below and returning the executed Proposal to us via e-mail or US Mail for our records. Receipt of the executed Proposal serves as authorization for us to proceed with the work.

The costs, fees, budget, and scope of work set out herein are valid for ninety (90) days from the date of this Proposal. If Pape-Dawson does not receive an executed Proposal from the Client within ninety (90) days from the date of this Proposal, the costs, fees, budget, and scope of work are subject to revision at Pape-Dawson's sole discretion. Pape-Dawson to provide a revised Proposal with the modified costs, budget, and scope of work should revisions be made.

We appreciate the opportunity to work with you on this project.

Sincerely,
Pape-Dawson Consulting Engineers, LLC


Devin Royal, RPLS
Survey Department Manager

CP&Y, INC. DBA STV INFRASTRUCTURE

Signature: _____

Name: _____

Title: _____

Date: _____

Attachment

- Pape-Dawson Terms & Conditions

O:\MARKETING\PROPOSALS\LETTERS\2024\12\241206B9 (P6391-24) HOU R1.DOCX



March 20, 2024

Mr. Ricardo Manriquez, P.E.
Project Manager, Transportation
STV, Inc.
11757 Katy Freeway, Suite 1540
Houston, Texas 77079

Re: Proposal for Urban Forestry Consulting Services on the Fort Bend County Watts Plantation Road (Sienna Parkway to Knight Road) project.
Project No. 20209

Dear Mr. Manriquez,

As per your request, C.N. Koehl Urban Forestry, Inc. proposes to provide Urban Forestry Consulting services for the Fort Bend County Watts Plantation Road (Sienna Parkway to Knight Road) project. We will evaluate proposed pavement, and ditch construction along south side of Watts Plantation Road from Sta. 129+00 to 135+50, approximately 650 l.f of project right of way. Based on your request for proposal, and our most recent experience on past projects working with consulting civil engineers, we propose to provide the following Urban Forestry services:

PHASE 2 – SERVICES FOR PROJECT DESIGN

Field Evaluation/Site Visit

We will walk street where construction is proposed to evaluate the specific impacts of proposed construction design and the preservation feasibility of each tree. We will confirm the surveyed location of each tree and approximately locate any trees that may be impacted that were not picked up by surveyor. Proposed construction activity adjacent to each tree will be evaluated to determine impacts on long-term tree survival and structural integrity. The field evaluation/site visit will be scheduled in conjunction with our 70% Tree Preservation Plan.

Fee for Field Evaluation/Site Visit

-Degreed Urban Forester

6.0 hours @ \$150.00/hour..... \$900.00

- Field Tech accompany for personal safety concerns

6.0 hours @ \$95.00/hour..... \$570.00

Final Submittal Tree Preservation Plan

The plan and profile drawings, provided by the engineer, will be reviewed prior to the Final submittal, to determine treatment for each tree. Each tree will be numbered on the drawings. A tree treatment schedule will list each tree by number, species, diameter,

condition, anticipated treatment, and mitigation required by Missouri City's Tree Ordinance for trees that may need to be removed. Each tree (public and private) adjacent to construction activity will be evaluated to ensure that construction activity will not destroy too much of the structural root system. Should we find any conflicts with proposed construction we will make recommendations for minor design changes or for removal of the tree. Recommendations for minor design changes will be redlined on plan and profile drawings copied to our Tree Submittal Form with a brief description of recommended changes and e-mailed to your office. Design change recommendations can then be reviewed by engineer and client to determine feasibility.

After we receive your comments on our design change recommendations we will develop an Autocad drawn tree protection plan which will identify the mitigative and protective treatments needed to ensure long term tree survival and compliance with the City's Tree Ordinance. Plan and profile drawings, provided by the engineer, will be used to indicate each tree by number, and exact location of preservation treatments (protection fencing, root pruning trench, etc.). A specification, addressing tree protection, will be provided to address all recommendations made in the treatment schedule and on the plans. Any replacement planting that may be necessary to comply with Tree Ordinance will be included on the tree protection plan and a specification section provided. Details for tree treatments will be included in the tree protection plan. Quantity totals and cost estimates for each tree treatment will be provided. The Final tree protection plan, specifications, and quantity totals and cost estimates will be emailed to you so that your staff may use the specs and quantity estimates as needed and plot the tree protection plan as it is needed. The tree protection plan will include our logo with a signature line, which we will provide a signed PDF file for final submittal. We will need 10-12 business days to schedule and complete the field evaluation and Final tree protection plan.

Fee for Final Tree Preservation Plan
10.0 hours @ \$150.00/hour..... \$1,500.00

Drafting AutoCAD (DWG) files of Tree Preservation Plan

We do have AutoCAD capabilities and will provide a CAD drawn document. We will need the electronic files of proposed construction in DWG format. We will use the project title block and insert plan drawings at a 1:40 scale, double banked on each sheet, similar to most traffic control plans. Tree treatment schedule will be included on each sheet which will call out treatments for each specific tree. This format typically allows us to fit approximately 1,200-1,500 l.f. per plan sheet, which would give us 1-2 sheets on this project. Two sheets with project details will also be included, which would give us a total of 3 to 4 sheets. The drawings will be emailed or uploaded to your ftp site, so that you may plot the files as you need them.

Fee for Drafting DWG files of the Tree Preservation Plan
6.0 hours @ \$65.00/hr..... \$390.00

Total Phase 2 Fees

Urban Forestry Services for development of Tree Protection Plan.....\$2,970.00

Drafting Services Fee for DWG files.....\$390.00

Total Fee for CAD drawn Tree Protection Plan.....\$3,360.00

We have utilized the services contained in this proposal on similar projects for The City of West University Place Infrastructure Replacement Program, City of Houston Neighborhood Street Reconstruction Program, City of Houston Surface Water Transmission Program, Houston Storm Water Management Program, City of Missouri City Street Reconstruction, City of Friendswood Street Reconstruction, City of Piney Point Street Reconstruction, City of Sugarland Street Reconstruction, City of Texas City Street Reconstruction, and numerous City of Houston waterline and sewer projects in the past. It is our goal to provide you the most effective, efficient, and value added services we can provide. We are willing to provide services in whatever capacity you deem appropriate.

If this proposal meets with your approval and you would like to retain our services, please forward your standard agreement or a notice to proceed, and we will schedule the work as soon as we receive the plan and profile sheets. We greatly appreciate the opportunity to present this proposal and look forward to working with you on this project. If you have any questions or would like to make any changes, please do not hesitate to call me at 281-391-0022.

Respectfully submitted,



Craig Koehl
Urban Forestry Consultant