WORK AUTHORIZATION NO. 2

PROJECT: Engineering Analysis of Drainage Detention

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated <u>July 16, 2019</u> and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and <u>Doucet & Associates</u> (the "Engineer").

- Part1. The Engineer will provide the following Engineering Services set forth in Attachment "B" of this Work Authorization.
- Part 2. The maximum amount payable for services under this Work Authorization without modification is \$50,000.00.
- Part 3. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the Contract.
- Part 4. This Work Authorization shall become effective on the date of final acceptance and full execution of the parties hereto and shall terminate on <u>December 31, 2021</u>. The Engineering Services set forth in Attachment "B" of this Work Authorization shall be fully completed on or before said date unless extended by a Supplemental Work Authorization.
- Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.
- Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Engineer understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to continue to make payments under this Contract. It is further understood and agreed by Engineer that County shall have the right to terminate this Contract at the end of any County fiscal year if the governing body of County does not appropriate sufficient funds as determined by County's budget for the fiscal year in question. County may effect such termination by giving written notice of termination to Engineer.
- Part 7. This Work Authorization is hereby accepted and acknowledged below.

EXECUTED this 23rd day of _______, 2019.

ENGINEER:	COUNTY:
	COOKIT:
Doucet & Associates, Inc.	Williamson County, Texas
By: Signature	By: Signature
Amy Douce+ Printed Name	Bill Gravell, Jr. Printed Name
President Title	Williamson County Judge Title

LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

Attachment A - Services to be Provided by County

Williamson County will provide a Project Manager and any requested data that is in the County's control.

Attachment B - Services to be Provided by Engineer

SCOPE OF SERVICES

In support of the County goals identified in the previous section, our Team will perform the following tasks:

- Williamson County Floodplain Administrators Presentation Our Team will prepare and conduct a presentation highlighting the findings and recommendations of the watershed timing assessment and potential exempt reaches pilot study to the Municipal Floodplain Administrators of Williamson County. We will use the MIS Powerpoint presentation previously developed for the Subdivision Committee Technical Advisors with minor modifications and clarifications requested by the County and deemed appropriate by our Team. During the presentation, we will solicit feedback from the attendees and address issues and concerns to the greatest extent possible. Williamson County staff will coordinate attendees as well as the date, time, and location of the presentation. It is anticipated that the presentation will be within the last two weeks of July.
- 2) <u>Technical Memorandum & Subdivision Regulation Revisions</u> Our Team will prepare a technical memorandum summarizing the findings and recommendations of the watershed timing assessment and potential exempt reaches pilot study. The memo will include a summary of recommended revisions and/or additions to the Drainage and Flood Control Section of the Subdivision Regulations for consideration by the County. Revisions will provide clarity related to acceptable hydrologic and hydraulic methodologies and modeling platforms; SCS Curve Number development; ranges for parameters and coefficients; detention applicability, requirements, and potential exemptions; and other issues. Doucet will also incorporate feedback from County staff provided during our meetings on June 11th, 19th and 27th.

As part of this task, our Team will evaluate detention exemptions allowed by other communities based on development density (lot size, number of lots, impervious coverage, etc.) and their applicability to Williamson County. Our Team will recommend appropriate detention exemption criteria with the intent to avoid unnecessary concentration of runoff within low-density developments that may otherwise maintain a "sheet flow" runoff regime similar to predevelopment conditions. An effort will also be made to review up to two (2) known case studies that may provide justification for the recommendations provided.

This task also includes evaluation of the times to peak of current proposed potential exempt reaches (Option 1), which are based on USGS HUC12 delineations, within the Upper San Gabriel River watershed (other watersheds may be evaluated depending on schedule and budget constraints). This task also includes a technical review by Scheibe Consulting of the methods used in the pilot study, and consideration of quality control "tests" to verify the approach developed by Doucet. This task does not include a detailed, county-wide evaluation and refinement of potential exempt reaches based on individual watershed models; however, these services can be provided under a separate work authorization.

Doucet will develop a draft technical memorandum (including formal QA/QC by Scheibe) for the County's review within three weeks of notice to proceed from the County. Doucet

will coordinate an initial review meeting with County staff to discuss the County's review comments and overall vision. Within two weeks of the initial review meeting, Doucet will provide the County with a final technical memorandum for the County's consideration and use.

ASSUMPTIONS

- 1. <u>Reimbursables</u> Printing, reproduction, and other non-labor charges that are directly related to this project will be billed at cost. In-house printing charges will be based on competitive rates of local reproduction companies.
- Services excluded from this proposal are, but not limited to: revisions and/or additions to actual
 subdivision regulation text, civil design, permitting, surveying, bid/award assistance, construction
 phase services. Should any of these services be desired or required, an additional scope, fee, and
 schedule proposal will be necessary.
- 3. All permit, license, inspection, testing fees, etc., shall be the responsibility of the Owner or Client and are not included in this agreement.
- 4. Should the Owner request changes to the above defined SCOPE OF SERVICES after an agreement is developed or if additional services are requested, the additional work shall be billed on a time and materials basis or other arrangement agreeable to both parties. An estimate of additional costs will be provided and approved prior to proceeding with the additional project work.
- 5. The professional services fees associated with this proposal do not include fees payable to the County, TCEQ, USACE, FEMA, or other review or permitting authorities.
- 6. Once our deliverables are reviewed and all comments addressed, further modifications to the document will be considered additional services if they are significant.

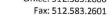
Attachment C - Work Schedule

SCHEDULE

Upon receiving authorization to proceed from the County, the Doucet team anticipates that presentation and draft technical memorandum will be complete within three (3) weeks, and the final technical memorandum will be complete within two (2) weeks of receiving Williamson County comments on the draft memorandum.

Attachment D - Fee Schedule

Please see next pages.





DoucetandAssociates.com

Schedule A Doucet & Associates 2019 Fee Schedule (effective 04/01/2019)

<u>Personnel</u>	<u>Hourly Fee</u>	Personnel	Hourly Fee
Principal Engineer (PE)	\$240.00	Principal Surveyor (RPLS)	\$240.00
Senior Project Manager	\$220.00	Project Manager (RPLS)	\$200.00
Project Manager	\$190.00	Project Coordinator	\$140.00
Senior Project Engineer (PE)	\$175.00	Survey Specialist	\$130.00
Project Engineer III	\$160.00	Survey Technician	\$100.00
Project Engineer II	\$150.00	GIS Specialist	\$130.00
Project Engineer I	\$140.00	GIS Technician	\$100.00
Engineer Associate II	\$125.00	LiDAR Specialist	\$130.00
Engineer Associate I	\$110.00	LiDAR Technician	\$100.00
Sr. Construction Technician	\$140.00	Aerial Mapping Specialist	\$130.00
Construction Manager	\$105.00	Aerial Mapping Technician	\$100.00
Program Manager	\$105.00	Utility Specialist	\$130.00
Sr. Civil Technician	\$135.00	Utility Technician	\$100.00
Civil Technician	\$120.00	Field Coordinator	\$140.00
Assistant Civil Technician	\$110.00	Field Specialist	\$110.00
		Field Technician	\$ 60.00
Senior Planner (AICP)	\$160.00	Division Administrator	\$100.00
Project Planner	\$145.00	LiDAR Scanner	\$100.00/hr
Staff Planner	\$110.00	Drone	\$600.00/hr
Planning Technician	\$100.00	Ground Targets	\$25/ea
		Concrete Monuments	\$250/ea
Sr. Operations Assistant	\$ 90.00	ATV/Boat/Sonar	\$100/day
Operations Assistant	\$ 70.00		
		Mileage	Current IRS
			rate
Expert Witness	\$500.00		



Doucet, Schelbe will make necessary updates to the H&H models and submit to FEMA as a LOMR for final acceptance. It is assumed that only minor changes from the final design (i.e. CLOMR documents) and the final construction will occur. If major changes in the construction occur, then additional scope and fee may be necessary to ensure an accurate LOMR application and modeling updates are submitted. This effort will include up to two (2) rounds of minor FEMA comments associated with the LOMR application. This effort also assumes that Doucet will have the levee accredited by FEMA prior to (or in conjunction with) the LOMR application.

Fee Schedule:

See the attached Fee Schedule for the hourly breakdown by task.

If additional services are required [including construction phase services], these services shall be billed at the following hourly rates:

- 1. Principal Engineer \$219/hr
- 2. Senior Engineer \$188.5/hr
- 9. Project Engineer \$147.5/hr
- 4. Engineer \$127.25/hr
- 5. EIT 2 \$112/hr
- 6. EIT 1 \$96.75/hr
- 7. Admin \$66/hr

Notes:

1. This engineering fee does not include permit fees to the city, county, TCEQ, USACE, FEMA, or other unanticipated review/permitting authorities.

Frank Lam Associates, Inc. Floodwall at Williamson County Juvenile Justice Center Williamson County Attachment A

		Project Manager	Senior Engineer	Project Engineer	Techni-cian	Clerical	
No.	Scope of Work	148.00	123.00	95.00	71.00	61,00	Total
1	Review of soil information and consultation with geotechnical engineer.		4				\$ 492,00
2	Structural engineering and drawings for the floodwall and footing at 60% submittal.	4	24		24		\$ 5,248,00
3	Address review comments.	***************************************	2		4		\$ 530.00
4	Structural engineering and drawings for the floodwall and footing at 90% submittal.	2	16		24		\$ 3,968,00
5	Address Review comments.		4		4		\$ 776,00
6	Final engineering and construction documents for the floodwall and footing.	2	16		24		\$ 3,968,00
7	Anticipate one meeting with client and consultants during design phase.		4				\$ 492.00
8	Prepare cost estimate for structural items.	2	8			4.	\$ 1,280.00
9	Construction Phase services include:	· · · · · · · · · · · · · · · · · · ·		4			\$ -
	One site visit		4				\$ 492.00
	Respond to RFI's		6		- 14-V		\$ 738,00
	Review submittals		4				\$ 492.00
10	General administration.					4	\$ 244.00
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	Total	10	92	0	80	4	\$ 18,720.00

ENVIRONMENTAL CONSULTING • PLANNING • PROJECT MANAGEMENT

RATE SCHEDULE Effective January 1, 2019 through December 31, 2019

PERSONNEL

Blanton & Associates, Inc., provides services on an hourly professional fee basis according to the rates scheduled below:

Project Principal	\$225.00
Project Manager	
Senior Environmental Professional	\$130.00 - \$160.00
Staff Scientist II	
Staff Scientist I	\$110.00 - \$120.00
Environmental Technician II	\$ 90.00 - \$110.00
Environmental Technician I	\$ 75.00 - \$ 90.00
GIS Analyst/Cartography	\$ 95.00 - \$110.00
GIS Technician	
Clerical/Administrative	

TRAVEL & SUBSISTENCE

All travel expenses, including lodging, are invoiced at actual cost. Cost of mileage for company-owned vehicles is computed at the current IRS rate. Rental automobiles and fuel costs for same will reflect actual costs to the firm. Company boats are billed at a rate of \$500.00 per day plus fuel. Copies will be billed at the rate of \$.05 per page.

PURCHASED SERVICES

All purchased services are invoiced at actual cost. These include, but are not limited to, reproduction, computer time, long distance telephone, consultants, subcontract services, rented or leased equipment, and expendable supplies.

GEOTECHNICAL INVESTIGATION FOR

WILLIAMSON COUNTY JUVENILE JUSTICE CENTER BRAINAGE IMPROVEMENTS WILCO WAY GEORGETOWN, TEXAS

COST ESTIMATE

1.	Engineer's site Visit - 6 Hrs. @ \$165.00\$	990.00
2.	Rig Mobilization:Support Truck and Crew Travel Time 3 Days @ \$225.00/Day	650.00 675.00
3.	Drilling, Logging, and Sampling:	
	Maple Street Embankment 11 Borings @ 15 feet - 165 LF @ \$16.00/Ft Levee/Floodwall Alignment	2,640.00
	7 Borings at 15 feet - 105 LF @ \$16.00/Ft	1,680.00
	6 Borings at 5 feet - @ \$110.00 Ba	660,00
4,	Laboratory Testing (Atterberg Limits, Unconfined Compression Tests, Minus #200 Sieve Tests, Moisture Contents, Dry Density, Permeability Tests, Triaxial tests, etc.)	4,800.00
5.	Engineering Report with Evaluation of Maple Street Dam Embankment, New Levee Flood Wall Recommendations and	
	Suitability of On-Site Excavated Soils for Fill: Sub Total	2,500.00 12,595.00
Addition analysis	al engineering and lab testing services for in depth stability/settlement for the embankments to meet FEMA Accreditation	5,000.00
	Total Estimated Cost\$	19,595.00

Total estimated costs are expected to range from about \$19,000 to \$21,500.00 depending on the subsurface conditions, extent of laboratory testing and engineering hours required.

CLIENT INFORMATION: (Responsible Billing Party)

This information must be filled out before the geotechnical investigation can be scheduled. The undersigned agrees to the above scope of work and following conditions and is responsible for payment.

WJJC Drainage Improvements 3 June 2019 Page 3 of 4

