

SUPPLEMENTAL WORK AUTHORIZATION NO. 2
TO
WORK AUTHORIZATION NO. 1

WILLIAMSON COUNTY ROAD BOND PROJECT:
CR 245 (RM 2338 to Ronald Reagan Blvd)

This Supplemental Work Authorization No. 2 to Work Authorization No. 1 is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated April 7, 2020 ("Contract") and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Bridgefarmer & Associates, Inc. (the "Engineer").

WHEREAS, the County and the Engineer executed Work Authorization No. 1 dated effective May 1, 2020 (the "Work Authorization");

WHEREAS, pursuant to Article 14 of the Contract, amendments, changes and modifications to a fully executed Work Authorization shall be made in the form of a Supplemental Work Authorization; and

WHEREAS, it has become necessary to amend, change and modify the Work Authorization.

AGREEMENT

NOW, THEREFORE, premises considered, the County and the Engineer agree that the Work Authorization shall be amended, changed and modified as follows:


- I. The Services to be Provided by the Engineer that were set out in the original Attachment "B" of the Work Authorization are hereby amended, changed and modified as shown in the attached revised Attachment "B" (must be attached).
- II. The maximum amount payable for services under the Work Authorization is hereby increased from \$916,694.20 to \$1,064,387.77.

Except as otherwise amended by prior or future Supplemental Work Authorizations, all other terms of the Work Authorization are unchanged and will remain in full force and effect.

This Supplemental Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

IN WITNESS WHEREOF, the County and the Engineer have executed this Supplemental Work Authorization, in duplicate, to be effective as of the date of the last party's execution below.

ENGINEER:

By:  _____
Signature

Mansoor Ahsan, PE

Printed Name

Chief Executive Officer

Title

06-21-2021

Date

COUNTY:

By: _____
Signature

Printed Name


Title

Date

LIST OF ATTACHMENTS

Attachment B - Services to be Provided by Engineer

Attachment D - Fee Schedule


6/23/2021

ATTACHMENT B SERVICES TO BE PROVIDED BY THE ENGINEER FOR CR 245

PROJECT DESCRIPTION

Project Limits

The project limits are from North of RM 2338 to Ronald Reagan Blvd for approximately 1.1 miles.

Existing Facility

Existing 2-lane roadway with asphalt pavement. There is an existing left turn lane at the intersection at RM 2338. The existing right of way varies from 60 ft to 140 ft.

Proposed Facility

Proposed 2-lane roadway with shoulders and a middle turn lane with a proposed ROW width of 135ft, from the project limits mention above.

Design Criteria

The proposed design criteria for the project will be developed from City of Georgetown, Williamson County and TxDOT design criteria. It is anticipated that in most cases the most stringent of the design criteria will be used.

1. ROW MAPPING

Prepare ROW document for Parcel 2R (Old CR 245)

2. SURVEYING

Survey the ROW line for Mary Luzius property

3. GEOTECHNICAL SERVICES

1. Soil Borings:

- Perform two (2) bridge borings to a depth of sixty (60) feet.
- Develop soil boring layout for approval by the County prior to mobilization.

b. Geotech Report:

- Create a Preliminary Pavement and Bridge Report and Final Pavement and Bridge Report based on field testing, subsequent laboratory testing, following the format noted in the Williamson County Design Criteria Manual.

Deliverables:

- Preliminary and Final Pavement and Bridge Report.
- Draft & Final Geotech Report

4. PLAN PREPARATION (PS&E) SERVICES

Prepare plans per the current Williamson County Design Criteria Manual including applicable submittal requirements including cost estimate, checklists, hardcopies, CAD files, comment responses, design waivers/exceptions, general notes, quantities, updated design schedule, construction time determination. The engineer will develop and submit these Plans, Specifications & Estimates (PS&E) at 60%, 90%, 100% and Final Design.

a. Structures

- Prepare bridge layout for Cowan Creek
- Prepare bridge detail summary including bridge quantities, estimates, and summary sheets for Cowan Creek
- Prepare bridge structural details and develop details structural drawings of all required details. The Engineers shall assemble and complete all applicable State Standard Detail sheets.
- Perform calculations for design of bridge abutments.
- Perform calculations for bridge slab design.
- Perform calculations to determine elevations of bridge substructure and super structure elements.
- Perform calculations for bridge girder design.
- Prepare necessary foundation details and plan sheets.
- Prepare plan sheets for abutment design.
- Prepare plan sheets for additional abutment details.
- Prepare framing plan and slab plan sheets.
- Compute and prepare tables for slab and bearing seat elevations, dead load deflections, etc.
- Design beams and prepare beam design tables.
- Prepare special provisions and special specifications in accordance with TxDOT Bridge Manuals.

b. **Deliverables:**

- 60%, 90%, 100% & Final PS&E Submittals including applicable Williamson County Submittal Checklists.

c. Drainage

- Prepare ditch plan and profile sheet
- Prepare Cowan Creek grading plan
- Prepare Culvert 2 grading plan

Attachment D

TASK	FIRM				FEE
	BRIDGEFARMER	CLGANN	CORSAIR	McGRAY & McGRAY	
TASK 4: ROW MAPPING	\$0.00	\$0.00	\$0.00	\$4,035.00	\$4,035.00
TASK 5: SURVEYING	\$0.00	\$0.00	\$0.00	\$2,027.00	\$2,027.00
TASK 9: GEOTECHNICAL SERVICES	\$0.00	\$0.00	\$10,981.57		\$10,981.57
TASK 10: PLANS PREPARATION (PS&E)	\$105,300.00	\$11,670.00	\$0.00		\$116,970.00
SUBTOTAL	\$105,300.00	\$11,670.00	\$10,981.57	\$6,062.00	\$134,013.57
DIRECT EXPENSES	\$120.00	\$0.00	\$13,560.00		\$13,680.00
GRAND TOTAL	\$105,420.00	\$11,670.00	\$24,541.57	\$6,062.00	\$147,693.57

Fee Schedule

Bridgefarmer & Associates - Williamson County CR 245

	\$250.00	\$270.00	\$210.00	\$150.00	\$120.00	\$135.00		
TASK 10: PLANS PREPARATION (PS&E)	Project Manager	Quality Manager	Senior Engineer	Design Engineer	EIT	Senior CADD Operator	Total	PROPOSED FEE
Bridge								\$0.00
Bridge Layouts	2	4	4	8	20	20	58	\$8,720.00
Bridge Typical Sections	1	2	8	8	16	16	51	\$7,750.00
Quantity and Bearing Seat Elevations	1	2	8	10	12	8	41	\$6,490.00
Foundation Layouts and Details	2	4	10	20	36	40	112	\$16,400.00
Bent Details	2	6	16	28	40	40	132	\$19,880.00
Abutment Details	1	2	6	8	12	16	45	\$6,850.00
Framing Plans	1	4	8	16	32	32	93	\$13,570.00
Slab	1	4	10	20	32	40	107	\$15,670.00
Miscellaneous Details, Future widening	1	1	4	6	12	16	40	\$5,860.00
Bridge Standards			1	2	12	16	31	\$4,110.00
							0	\$0.00
HOURS SUB-TOTALS	12	29	75	126	224	244	710	\$105,300.00
LABOR RATE PER HOUR	\$250.00	\$270.00	\$210.00	\$150.00	\$120.00	\$135.00		
SUBTOTAL Plans Preparation (PS&E)	\$3,000.00	\$7,830.00	\$15,750.00	\$18,900.00	\$26,880.00	\$32,940.00	\$105,300.00	\$105,300.00
Summary	Project Manager	Quality Manager	Senior Engineer	Design Engineer	EIT	Senior CADD Operator	Total	PROPOSED FEE
BRIDGEFARMER TOTAL HOURS BY CLASSIFICATION:	12	29	75	126	224	244	710.00	\$105,300.00
LABOR RATE PER HOUR	\$250.00	\$270.00	\$210.00	\$150.00	\$120.00	\$135.00		
BRIDGEFARMER ALL FUNCTION CODES	\$3,000.00	\$7,830.00	\$15,750.00	\$18,900.00	\$26,880.00	\$32,940.00	\$105,300.00	\$105,300.00
	3%	7%	15%	18%	26%	31%	100%	100%
	TOTAL							\$105,300.00

Fee Schedule

Bridgefarmer & Associates - Williamson County CR 245

Other Direct Expenses	UNIT	QUANTITY	CHARGE	DIRECT EXPENSE TOTAL COST
Photocopies BIW (11" X 17")	per sheet	400	\$0.30	\$ 120.00
				\$120.00
	TOTAL			\$120.00

Fee Schedule

CLGann, LLC - Williamson County CR 245

	\$240.00	\$225.00	\$180.00	\$125.00	\$125.00		
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TASK 10: PLANS PREPARATION (PS&E)	Quality Manager	Senior Engineer	Project Engineer	EIT	Engineering Technician	Total	PROPOSED FEE
Drainage						0	\$0.00
Ditch Plan & Profiles (6 Sheets)		8	16	32		56	\$8,680.00
Cowan Creek Grading Plan		4	4	8		16	\$2,620.00
Culvert 2 Grading Plan		1	2	4		7	\$1,085.00
Culvert BCS Sheet (Not needed)	-1	-1			-2	-4	-\$715.00
HOURS SUB-TOTALS	-1	12	22	44	-2	75	\$11,670.00
LABOR RATE PER HOUR	\$240.00	\$225.00	\$180.00	\$125.00	\$125.00		
SUBTOTAL Plans Preparation (PS&E)	(\$240.00)	\$2,700.00	\$3,960.00	\$5,500.00	(\$250.00)	\$11,670.00	\$11,670.00

Summary	Quality Manager	Senior Engineer	Project Engineer	EIT	Engineering Technician	Total	PROPOSED FEE
BRIDGEFARMER TOTAL HOURS BY CLASSIFICATION:	-1	12	22	44	-2	75.00	\$11,670.00
LABOR RATE PER HOUR	\$240.00	\$225.00	\$180.00	\$125.00	\$125.00		
BRIDGEFARMER ALL FUNCTION CODES	(\$240.00)	\$2,700.00	\$3,960.00	\$5,500.00	(\$250.00)	\$11,670.00	\$11,670.00

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TOTAL	\$11,670.00
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Fee Schedule

Corsair Consulting, LLC - Williamson County CR 245

	\$271.00	\$271.00	\$240.87	\$180.66	\$165.59	\$143.01	\$105.37	\$82.80	\$46.97	\$75.28		
TASK 9: GEOTECHNICAL SERVICES	Principal Engineer	Senior Project Engineer	Project Manager	Senior Engineer	Project Engineer	Design Engineer	EIT	Engineerin g Technician	Engineerin g Technician	Admin/Cler ical	Total	PROPOSED FEE
Goetechnical Report											0	\$0.00
Perform bridge analysis				10.5		30	45.5				86	\$10,981.57
HOURS SUB-TOTALS	0	0	0	10.5	0	30	45.5	0	0	0	86	\$10,981.57
LABOR RATE PER HOUR	\$271.00	\$271.00	\$240.87	\$180.66	\$165.59	\$143.01	\$105.37	\$82.80	\$46.97	\$75.28		
SUBTOTAL Geotechncial Services	\$0.00	\$0.00	\$0.00	\$1,896.93	\$0.00	\$4,290.30	\$4,794.34	\$0.00	\$0.00	\$0.00	\$10,981.57	\$10,981.57

Summary	Principal Engineer	Senior Project Engineer	Project Manager	Senior Engineer	Project Engineer	Design Engineer	EIT	Engineerin g Technician	Engineerin g Technician	Admin/Cler ical	Total	PROPOSED FEE
BRIDGEFARMER TOTAL HOURS BY CLASSIFICATION:	0	0	0	10.5	0	30	45.5	0	0	0	86.00	\$10,981.57
LABOR RATE PER HOUR	\$271.00	\$271.00	\$240.87	\$180.66	\$165.59	\$143.01	\$105.37	\$82.80	\$46.97	\$75.28		
BRIDGEFARMER ALL FUNCTION CODES	\$0.00	\$0.00	\$0.00	\$1,896.93	\$0.00	\$4,290.30	\$4,794.34	\$0.00	\$0.00	\$0.00	\$10,981.57	\$10,981.57
	0%	0%	0%	17%	0%	39%	44%	0%	0%	0%	100%	100%

	TOTAL											\$10,981.57
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Fee Schedule

Corsair Consulting, LLC - Williamson County CR 245

Other Direct Expenses	UNIT	QUANTITY	CHARGE	DIRECT EXPENSE TOTAL COST
Soil Drilling & Sampling (Cohesive Soils)	per foot	12	\$28.00	\$ 336.00
Rock Coring	per foot	60	\$42.00	\$ 2,520.00
TCP Test at 5' intervals in all borings	per foot	14	\$15.00	\$ 210.00
Backfill with Soil Cutting / Grouting with Bentonite Chips	per foot	72	\$8.00	\$ 576.00
Moisture Content (ASTM D2216)	each	37	\$10.00	\$ 370.00
Atterberg Limits (ASTM 4318)	each	12	\$80.00	\$ 960.00
Percent Passing No. 200 Sieve (ASTM D1140)	each	4	\$42.00	\$ 168.00
Sieve Analysis (ASTM D422)	each	6	\$95.00	\$ 570.00
Unconfined Compressive - Rock (ASTM D7012)	each	23	\$75.00	\$ 1,725.00
Corrosion Suite (Sulfates, Chlorides, and PH)	each	3	\$175.00	\$ 525.00
Traffic Control	per day / each	2	\$2,300.00	\$ 4,600.00
Sample Storage	per month	2	\$500.00	\$ 1,000.00
				\$13,560.00
			TOTAL	\$13,560.00

Fee Schedule

McGray & McGray Land Surveyors, Inc. - Williamson County CR 245

	\$145.00	\$190.00	\$200.00	\$165.00	\$98.00	\$108.00	\$98.00	\$96.00	\$90.00	\$80.00	\$70.00		
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TASK 4: ROW MAPPING	RPLS	Principal	RPLS-Consulting	Project Manager	Field Coordinator	GPS Processing	LIDAR Technician	Senior Technician	AutoCAD/Survey Technician	Researcher	Admin/Clerical	Total	PROPOSED FEE
Parcel Acquisition Documents												0	\$0.00
Parcel 2R (Old CR 245)	10			5				10		10		35	\$4,035.00
HOURS SUB-TOTALS	10	0	0	5	0	0	0	10	0	10	0	35	\$4,035.00
LABOR RATE PER HOUR	\$145.00	\$190.00	\$200.00	\$165.00	\$98.00	\$108.00	\$98.00	\$96.00	\$90.00	\$80.00	\$70.00		
SUBTOTAL ROW Mapping	\$1,450.00	\$0.00	\$0.00	\$825.00	\$0.00	\$0.00	\$0.00	\$960.00	\$0.00	\$800.00	\$0.00	\$4,035.00	\$4,035.00

TASK 5: SURVEYING	RPLS	Principal	RPLS-Consulting	Project Manager	Field Coordinator	GPS Processing	LIDAR Technician	Senior Technician	AutoCAD/Survey Technician	Researcher	Admin/Clerical	Total	PROPOSED FEE
* Survey ROW line for Mary Luzius property	9			2	4							15	\$2,027.00
												0	\$0.00
HOURS SUB-TOTALS	9	0	0	2	4	0	0	0	0	0	0	15	\$2,027.00
LABOR RATE PER HOUR	\$145.00	\$190.00	\$200.00	\$165.00	\$98.00	\$108.00	\$98.00	\$96.00	\$90.00	\$80.00	\$70.00		
SUBTOTAL Surveying	\$1,305.00	\$0.00	\$0.00	\$330.00	\$392.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,027.00	\$2,027.00

Summary	RPLS	Principal	RPLS-Consulting	Project Manager	Field Coordinator	GPS Processing	LIDAR Technician	Senior Technician	AutoCAD/Survey Technician	Researcher	Admin/Clerical	Total	PROPOSED FEE
BRIDGEFARMER TOTAL HOURS BY CLASSIFICATION:	19	0	0	7	4	0	0	10	0	10	0	50.00	\$6,062.00
LABOR RATE PER HOUR	\$145.00	\$190.00	\$200.00	\$165.00	\$98.00	\$108.00	\$98.00	\$96.00	\$90.00	\$80.00	\$70.00		
BRIDGEFARMER ALL FUNCTION CODES	\$2,755.00	\$0.00	\$0.00	\$1,155.00	\$392.00	\$0.00	\$0.00	\$960.00	\$0.00	\$800.00	\$0.00	\$6,062.00	\$6,062.00
	45%	0%	0%	19%	6%	0%	0%	16%	0%	13%	0%	100%	100%

	TOTAL												\$6,062.00
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