

WORK AUTHORIZATION NO. 4

PROJECT: Engineering Design Services for Seven (7) HMAC Widening Projects:

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated May 31, 2022 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and K.C. Engineering, Inc. (the "Engineer").

Part 1. 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 \$456,280.00.

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 March 31, 2025. 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 ____ day of _____, 20__.

ENGINEER:

_____ K.C. Engineering, Inc. _____

By: Greg Haley, P.E.
Signature

_____ Greg Haley, P.E. _____
Printed Name

_____ President _____
Title

COUNTY:

_____ Williamson County, Texas _____

By: _____
Signature

_____ Printed Name

_____ 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
Services to be Provided by County

Williamson County Road & Bridge Division personnel will provide:

- Project direction, review and oversight
- Topographic and R.O.W. Surveys.
- Geotechnical Investigations; data and reports.
- ROW Documents and Drainage Reports.
- Conducting pre-bid meeting, responding to contractor questions during bidding, tabulating and evaluating bids after bid opening, and providing recommendation of award of contract.
- Construction oversight, administration and management.

Attachment B – Services to be Provided by Engineer

Services to be Provided by Engineer

Project Locations

1. Name of Roadway: County Roads 107, 139, 241, 288, 289, 408, & 411

Task 1: Project Management

Attend Progress Review Meetings with County Road and Bridge Department at 50%, 90%, and Final. Prepare monthly progress reports and invoices. Maintain project schedule and perform QC/QA.

Task 2: Topographic Surveys and R.O.W. Surveys

To be provided by the County

Task 3: Preliminary Engineering

Conduct Site Visit and Field Reconnaissance to document existing conditions. Data collection including available as-builts. Develop conceptual geometric layout on scroll plot (1" = 20' H, 1" = 2' V) showing roadway horizontal geometry and proposed typical section. Develop preliminary drainage analysis including delineation of drainage areas, calculation of peak stormwater runoff rates for 10-yr. and 100-yr. for roadway cross drainage pipes.

Task 4: Geotechnical Investigations

To be provided by the County

Task 5: Environmental Studies

N/A

Task 6: Utility Coordination

To be provided by the County

Task 7: FEMA Coordination

N/A

Task 8: Final Engineering

Prepare final detailed design and PS&E for proposed improvements. Size cross culvert pipes, excluding concrete box culverts and bridges.

Plan Sheets:

- Title Sheet
- Index of Sheets
- Estimate of Quantities Summary
- Project Layout
- Typical Sections
- Horizontal Alignment Data

- Drainage Area Map
- Cross Section at Culvert Sites for roadway pipes
- H & H Summaries
- Miscellaneous Drainage Details
- Existing Conditions and Removal Plan
- Erosion Control Plan
- Sequence of Construction
- Traffic Control Plan
- Intersection Layout
- Roadway Plan View Layouts
- Miscellaneous Roadway Details
- Signs & Pavement Markings
- SW3P
- Standards

Specifications
 Cost Estimate
 General Notes

Task 9: Bidding Phase Services

Prepare Bid Tabs for processing by Purchasing Department

Task 10: Construction Phase Services

Review shop drawings and respond to contractor RFIs. Prepare electronic as-built final drawings for the County based on construction red-lines provided by the County.

Deliverables:

50% Submittal:

- PDFs of 11" x 17" Plan Sheets
- Specifications
- Estimate of Construction Cost
- General Notes
- Engineer's Internal QA/QC marked up set

90% Submittal

- PDFs of 11" x 17" Plan Sheets
- Specifications
- Estimate of Construction Cost
- General Notes

100% Submittal

- PDFs of 11" x 17" Plan Sheets
- Specifications

- Estimate of Construction Cost
- General Notes
- Electronic copy of submittal documents in PDF format

ATTACHMENT C - WORK SCHEDULE

Task No.	Task Name	Duration	Time	Start	Finish
1	WA #4 - Notice to Proceed	0	Days	3/1/2024	3/1/2024
2	Survey (by others)	30	Days	3/1/2024	3/31/2024
3	Design	100	Days	3/31/2024	7/9/2024
4	50% PS&E	20	Days	7/9/2024	7/29/2024
5	QA/QC	5	Days	7/29/2024	8/3/2024
6	Submit 50% PS&E	0	Days	8/3/2024	8/3/2024
7	County Review	5	Days	8/3/2024	8/8/2024
8	90% PS&E	20	Days	8/8/2024	8/28/2024
9	QA/QC	3	Days	8/28/2024	8/31/2024
10	Submit 90% PS&E	0	Days	8/31/2024	8/31/2024
11	County Review	5	Days	8/31/2024	9/5/2024
12	Final PS&E	5	Days	9/5/2024	9/10/2024
13	Adress 90% comments	10	Days	9/10/2024	9/20/2024
14	Final Qtys	2	Days	9/20/2024	9/22/2024
15	Final Estimate	3	Days	9/22/2024	9/25/2024
16	Assemble Final PS&E	5	Days	9/25/2024	9/30/2024
17	Submit Final PS&E	0	Days	9/30/2024	9/30/2024

**ATTACHMENT D - FEE SCHEDULE
WORK AUTHORIZATION NO. 4
SEVEN (7) HMAC WIDENING PROJECTS (CR 107, 139, 241, 288, 289, 408, & 411)**

K. C. ENGINEERING, INC.											
TASK NO.	TASK DESCRIPTION	PRINCIPAL ENGINEER	SENIOR PROJECT MANAGER	PROJECT MANAGER	SENIOR PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER-IN-TRAINING	ENGINEERING ASSISTANT	CAD TECHNICIAN	CLERICAL	TOTAL
	Labor Rates	250.00	215.00	200.00	195.00	165.00	125.00	110.00	95.00	80.00	
1	PS&E Development										
1.1	Roadway Design										
1.1.1	Establish Horizontal Alignment										\$ -
1.1.2	Establish Vertical Alignment										\$ -
1.1.3	Site Visits				12	8					\$ 3,680.00
1.1.4	Alignment & Superelevation Table										\$ -
1.1.5	Roadway Cross Sections										\$ -
1.1.6	Earthwork Calculations				12	24					\$ 6,300.00
1.1.7	Roadway Plan View Sheets				260	280	180				\$ 119,400.00
1.1.8	Driveway Profiles / Details / Summaries										\$ -
1.1.9	Side Road Profiles / Details / Summaries										\$ -
1.1.10	Miscellaneous Roadway Details										\$ -
1.1.11	Alignment Data										\$ -
1.1.12	Sequence of Construction										\$ -
1.1.13	Intersection Layouts										\$ -
1.1.14	Project Layout										\$ -
1.1.15	Title Sheet				8	6	2				\$ 2,800.00
1.1.16	Survey Data				6	8	8				\$ 3,490.00
1.1.17	Roadway Typical Sections				20	10	4				\$ 6,050.00
1.1.18	Index of Sheets				10	8	4				\$ 3,770.00
1.1.19	Summary of Roadway Quantities				6	8	2				\$ 2,740.00
1.1.20	Construction Estimate				40	20	10				\$ 12,350.00
1.1.21	Assemble Applicable Standards				60	20	10				\$ 16,250.00
	Task 2.1 Total	0	0	0	436	394	222	0	0	0	\$ 171,780.00
1.2	Hydrology & Hydraulics										
1.2.1	Drainage Area Mapping (Roadway)				60	80	40				\$ 29,900.00
1.2.2	Roadway Hydrology				88	66	30				\$ 31,800.00
1.2.3	Roadway Hydraulics				76	66	30				\$ 29,460.00
1.2.4	Roadway Culvert Sizing				60	40	24				\$ 21,300.00
1.2.5	Roadway H&H Summary Sheet & Tables				20	40	16				\$ 12,500.00
1.2.6	Driveway Hydrology										\$ -
1.2.7	Driveway Hydraulics										\$ -
1.2.8	Driveway Culvert Sizing										\$ -
1.2.9	Driveway H&H Summary Sheet & Tables										\$ -
1.2.10	Culvert Layouts & Culvert Details				88	60	20				\$ 29,560.00
1.2.11	Miscellaneous Drainage Details				10	10	10				\$ 4,850.00
1.2.12	Summary of Drainage Quantities				20	30	10				\$ 10,100.00
1.2.13	Assemble Applicable Standards				2	2	2				\$ 970.00
	Task 2.2 Total	0	0	0	424	394	182	0	0	0	\$ 170,440.00
1.3	Signing & Pavement Marking										
1.3.1	Sign Layouts										\$ -
1.3.2	Pavement Marking Layouts				12	24	8				\$ 7,300.00
1.3.3	Pavement Marking Details				4	8	8				\$ 3,100.00
1.3.4	Summary of Pavement Markings				4	8	6				\$ 2,850.00
1.3.5	Small Sign Summary										\$ -
1.3.6	Assemble Applicable Standards				2	2	2				\$ 970.00
	Task 2.3 Total	0	0	0	22	42	24	0	0	0	\$ 14,220.00
1.4	Traffic Control Plans / SW3P										
1.4.1	Traffic Control Layouts				32	24	10				\$ 11,450.00
1.4.2	Traffic Control Typical Sections				8	12	8				\$ 4,540.00
1.4.3	Intersection Design										\$ -
1.4.4	Driveway Design										\$ -
1.4.5	Storm Water Pollution Prevention Plan (SW3P)				4	4					\$ 1,440.00

**ATTACHMENT D - FEE SCHEDULE
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K. C. ENGINEERING, INC.											
TASK NO.	TASK DESCRIPTION	PRINCIPAL ENGINEER	SENIOR PROJECT MANAGER	PROJECT MANAGER	SENIOR PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER-IN-TRAINING	ENGINEERING ASSISTANT	CAD TECHNICIAN	CLERICAL	TOTAL
	Labor Rates	250.00	215.00	200.00	195.00	165.00	125.00	110.00	95.00	80.00	
1.4.7	Erosion Control Plan				40	60	20				\$ 20,200.00
1.4.8	Miscellaneous TCP and Erosion Details				4	4	4				\$ 1,940.00
1.4.9	Assemble Applicable Standards				2	2	2				\$ 970.00
	Task 2.4 Total	0	0	0	90	106	44	0	0	0	\$ 40,540.00
1.5	PS&E Documents										
1.5.1	Summary of Quantities				4	16	8				\$ 4,420.00
1.5.2	Basis of Estimate				6	4					\$ 1,830.00
1.5.3	Construction Cost Estimate				8	24					\$ 5,520.00
1.5.4	Construction Duration Estimate				8	8					\$ 2,880.00
1.5.5	General Notes & Specifications				8	16					\$ 4,200.00
1.5.6	Supporting Contract Documentation				12	16					\$ 4,980.00
	Task 2.5 Total	0	0	0	46	84	8	0	0	0	\$ 23,830.00
1.6	Project Management										
1.6.1	Project Administration				30						\$ 5,850.00
1.6.2	Maintain Project Records				12				24		\$ 4,260.00
1.6.3	Periodic Progress Meetings (County)				4						\$ 780.00
1.6.4	Periodic Progress Meetings (Subconsultants)										\$ -
1.6.5	QA/QC				16	24	12			4	\$ 8,900.00
1.6.6	Invoice Preparation				8					12	\$ 2,520.00
1.6.7	Progress Reports				8					12	\$ 2,520.00
1.6.8	Plans Preparation for Submittal				12	12				4	\$ 4,640.00
	Task 2.6 Total	0	0	0	90	36	12	0	0	56	\$ 29,470.00
	Task 1 - PS&E Total	0	0	0	1108	1056	492	0	0	56	\$ 456,280.00
2	Project Bidding										
2.1	Project Bidding										
2.1.1	Prepare Addenda										\$ -
2.1.2	Contractor Questions (RFI)										\$ -
2.1.3	Attend Pre-Bid Conference										\$ -
2.1.4	Tabulate Bids										\$ -
2.1.5	Prepare Recommendation Letter										\$ -
	Task 2 Project Bidding Total	0	0	0	0	0	0	0	0	0	\$ -
3	Construction Support										
3.1	Construction Support (if Required)										
3.1.1	Preconstruction Meeting										\$ -
3.1.2	Review Shop Drawings										\$ -
3.1.3	General Construction Support										\$ -
3.1.4	Prepare Change Orders as Necessary										\$ -
	Task 3 Construction Support Total	0	0	0	0	0	0	0	0	0	\$ -
	Total Tasks 1, 2, & 3	0	0	0	1108	1056	492	0	0	56	\$ 456,280.00