WORK AUTHORIZATION NO. 1

WILLIAMSON COUNTY ROAD BOND PROJECT:
CR 201 (CR 200 to Umbrella Sky) Phase 1

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated **March 9th**, 20**21** and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and **WSB & Associates, Inc.** (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 **$93,505**.

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 **May 26th**, 20**22**. 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.

Continued next page

EXECUTED this 8th day of June, 2021.

ENGINEER:

WSB & Associates, Inc.

By: _____
Signature

James Kennedy
Printed Name

Vice President
Title

COUNTY:

Williamson County, Texas

By: _____
Signature

Bill Gravell Jr.
Printed Name

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

5/28/2021

ATTACHMENT A
SERVICES TO BE PROVIDED BY THE COUNTY FOR
CR 201

In general, Williamson County and its representatives to their best efforts will render services as follows:

1. Name, business address, and phone number of County's project manager.

2. Assistance to the Engineer, as necessary, with obtaining data and information from other local, regional, State and Federal agencies required for this project.

3. Obtain Rights of Entry from landowners.

4. Provide available appropriate County data on file including plans and specifications that are deemed pertinent to the completion of the work required by the scope of services (including previous hydraulic studies, models, previous reports and studies, available existing traffic counts, and design year traffic projections).

5. Provide available criteria and full information as to the client's requirements for the project. Provide examples of acceptable format for the required deliverables.

6. Provide information on any meetings/discussions held with adjoining property owners that may impact the project.

7. Provide timely reviews and decisions necessary for the Engineer to maintain the project work schedule. Review recommendations offered by the Engineer, progress of work, and final acceptance of all documents.

8. Submittal of documentation and permits to regulatory agencies for review and comment, when specified.

9. Support project development efforts with stakeholders, coordinate meetings and interface with stakeholders, as needed.

10. Post and maintain project information for public consumption on the County website.

11. Assist with Coordination between the Engineer and the County's other consultants.

12. Negotiate with all utility companies for any agreements and/or relocations required.

13. Provide an agent as necessary to secure proposed ROW and relocate/remove improvements on proposed ROW.

ATTACHMENT B
SERVICES TO BE PROVIDED BY THE ENGINEER FOR CR 201

PROJECT DESCRIPTION

Project Limits
The project limits are from approximately 1100 ft north of Umbrella Skyway to CR 200 for approximately 2.0 miles.

Existing Facility
Existing 2-lane roadway with asphalt pavement. The existing right of way varies from 40 ft to 100 ft.

Proposed Facility
Proposed interim 2-lane roadway with 2 ft shoulders of an ultimate median arterial divided 6-lane curbed section with a raised median. The proposed ROW minimum width of 136 ft, from the project limits mention above.

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

1. PROJECT MANAGEMENT

   a. Communication:

      - Designate one Licensed Professional Engineer (Texas) to be responsible for the project management, and all communications with the County and its representatives.

   b. Monthly Progress Report, Invoices, and Billings (**4** months assumed):

      - Submit monthly progress status reports to the GEC. Progress reports will include deliverable table, tasks completed, tasks/objectives that are planned for the upcoming periods, lists or descriptions of items or decisions needed from the County and its representatives. Subconsultant progress will be incorporated into the monthly progress report. A copy of the monthly progress report will be uploaded to ProjectWise.
      - Prepare correspondence, invoices, and progress reports on a monthly basis in accordance with current County requirements.

   c. Quality Assurance and Quality Control (QA/QC) Plan:

      - Prepare a project specific QA/QC plan and submit to the County within thirty (30) days of notice to proceed.
      - For each deliverable submittal, provide evidence of their internal review and mark-up of that deliverable as preparation for submittal and in accordance with submitted project specific QA/QC plan.
      - Provide continuous QA/QC throughout the duration of the scheduled services included herein to appraise both technical and business performance and provide direction for project activities.

d. Project Coordination & Administration:

- Prepare and maintain routine project record keeping including records of meetings and minutes.
- Correspondence and coordination will be handled through & with the concurrence of the GEC.
- Manage Project activities (including documenting emails, phone and conference calls, maintain project files for the length of the project, meeting agendas, meeting minutes, and schedule meetings), direct Engineer's team/staff, coordinate and review sub-consultant work, correspond with the County and its representatives, and assist the County and its representatives in preparing responses to Project-related inquiries.

e. Progress/Coordination Meetings (**2** external meetings assumed):

- Attend a kickoff meeting and coordination/progress meeting with the County and its representatives and stakeholders, as necessary to communicate development of the project and design issues.
- Prepare agenda and sign-in sheets for external coordination/progress meetings.
- Prepare meeting minutes for review via email within three (3) business days of the external coordination/progress meeting.
- Conduct internal coordination meetings as required to advance the development of the project.

f. Project Schedule:

- Maintain a project schedule indicating tasks, subtasks, critical dates, milestones, and deliverables. Submit to County as requested.

g. **Deliverables:**

- Monthly Invoices and Progress Reports including Deliverable Table
- Project Specific QA/QC Plan
- Meeting Minutes, Sign-In Sheets, and Agendas
- Project Schedule and Updates
- Project Files
- QA/QC Documentation with Deliverable

2. ROUTE AND DESIGN STUDIES

a. Data Collection:

- Perform record research and obtain existing information, including but not limited to: as-built plans, construction plans, right of way maps, traffic data, environmental reports, studies, future land use maps, floodplain data, floodplain and drainage models and analyses. Obtain construction plans for projects within the project limits and abutting roadways. Obtain drainage studies, reports, and mapping for the project area, including reports for developments affecting the drainage area.

- Conduct a field investigation of the proposed roadway alignment and the surrounding area to determine field conditions including photographic record of notable existing features.
- Develop and maintain adjacent property ownership information spreadsheet to be used for disseminating project information including owner's name, tenant name for leased property, mailing address, property address, property id number.
- Review the data collected and organize the information.

b. Stakeholder Coordination (**2** meeting assumed):

- Schedule, coordinate logistics for and prepare agendas, sign in sheets, meeting minutes, discussion topics, presentations, overall exhibits, and maps of the project limits for stakeholder coordination.
- Coordinate with affected local agencies and County's consultants. Includes preparing/reviewing presentations and other communications materials for elected official briefings.
- Attend meeting with stakeholders (**2** meeting assumed).

c. Design Criteria:

- Analyze and identify project-specific design criteria (typical sections, design speed, functional classification, geometric criteria) in accordance with the latest versions of Williamson County Design Criteria Manual and other associated local and state manuals, as applicable.
- Prepare a Draft and Final Design Summary Form.

d. **Deliverables:**

- Meeting Minutes, Sign-In Sheets, Agendas, Presentations, Maps, and Exhibits for all Stakeholder Coordination Meetings.
- Draft and Final Design Summary Form (pdf and hardcopies)

3. TRAFFIC EVALUATIONS AND PROJECTIONS

a. Data Collection

- None

b. **Deliverables:**

- None

4. SCHEMATIC DEVELOPMENT

- Review and update existing alignment prepared by Williamson County to a Final Schematic (Ultimate) submittal per Williamson County Schematic submittal checklist and selected design criteria.
- Prepare updated cost estimate for the construction quantities covering all items of the proposed work.

- Develop cross sections at 100-foot stations and other locations as necessary for the determination of ROW footprint. These sections will also be used to further refine the design vertical geometry. These sections will be update for use in the PSE task.

b. **Deliverables:**

- Final Schematic (Ultimate) including cost estimate.
- Cross sections.

5. SCHEMATIC DRAINAGE STUDY (**5** total cross drainage structures assumed):

a. Hydrologic Study & Modeling

Detail the criteria, methodologies, results and recommendations of the analysis.

- Collect, prepare and modify existing hydrologic & hydraulic models to reflect the existing & proposed schematic. Compare and document the study results with existing studies or models from the County, FEMA, cities, etc., if available.
- Provide existing and proposed condition drainage area maps for each outfall from the project area and/or each cross-drainage structure location.
- Provide a comparison of existing vs proposed condition runoff patterns at each outfall from the project area.
- Atlas 14 impacts will be reviewed and incorporated.

b. Hydraulic Study & Modeling (**5** total crossing drainage structures assumed):

- Provide hydraulic models and/or calculations for the existing and proposed structures.
- Document existing conditions including size, length, flowline elevations, scour, flooding, erosion, tailwater or other notable conditions. Document source of hydraulic/channel cross sections.
- Prepare preliminary design and layout for the cross-drainage structures and major roadside channels using appropriate software (HEC-RAS, HY-8, SWMM, Bentley or other approved hydraulic modeling software). All bridges and multiple box culverts to be analyzed in HEC-RAS.
- Compare and document the study results with existing studies or models, Identify and document need for stakeholder coordination or permitting.
- Recommend minimum pavement elevations based on design event WSEL for cross drainage flood elevations & document WSEL on schematic profile.

c. Impact and Mitigation Analysis:

- Provide documentation of all adverse impacts resulting from the proposed facility in the proposed condition. Provide a comparison of existing vs proposed condition at each outfall from the project area.

- Provide plans to mitigate adverse impacts to nearby buildings, property access points, and runoff patterns.
- If detention is recommended or required prepare a routing analysis to determine preliminary size and ROW needs for proposed detention ponds.
- Coordinate with County's GEC to determine need for maintenance or landscaping setbacks for ponds. Criteria for this determination shall be based, in part, on drainage information provided by the Engineer and on the preliminary design for the project area.

Deliverables:

- Schematic Preliminary and Final Drainage Reports signed and sealed by a professional engineer in the State of Texas.
- Applicable GIS, Hydrologic Models or CAD files referenced in the drainage study.

6. DELIVERABLES:

   a. Documents:

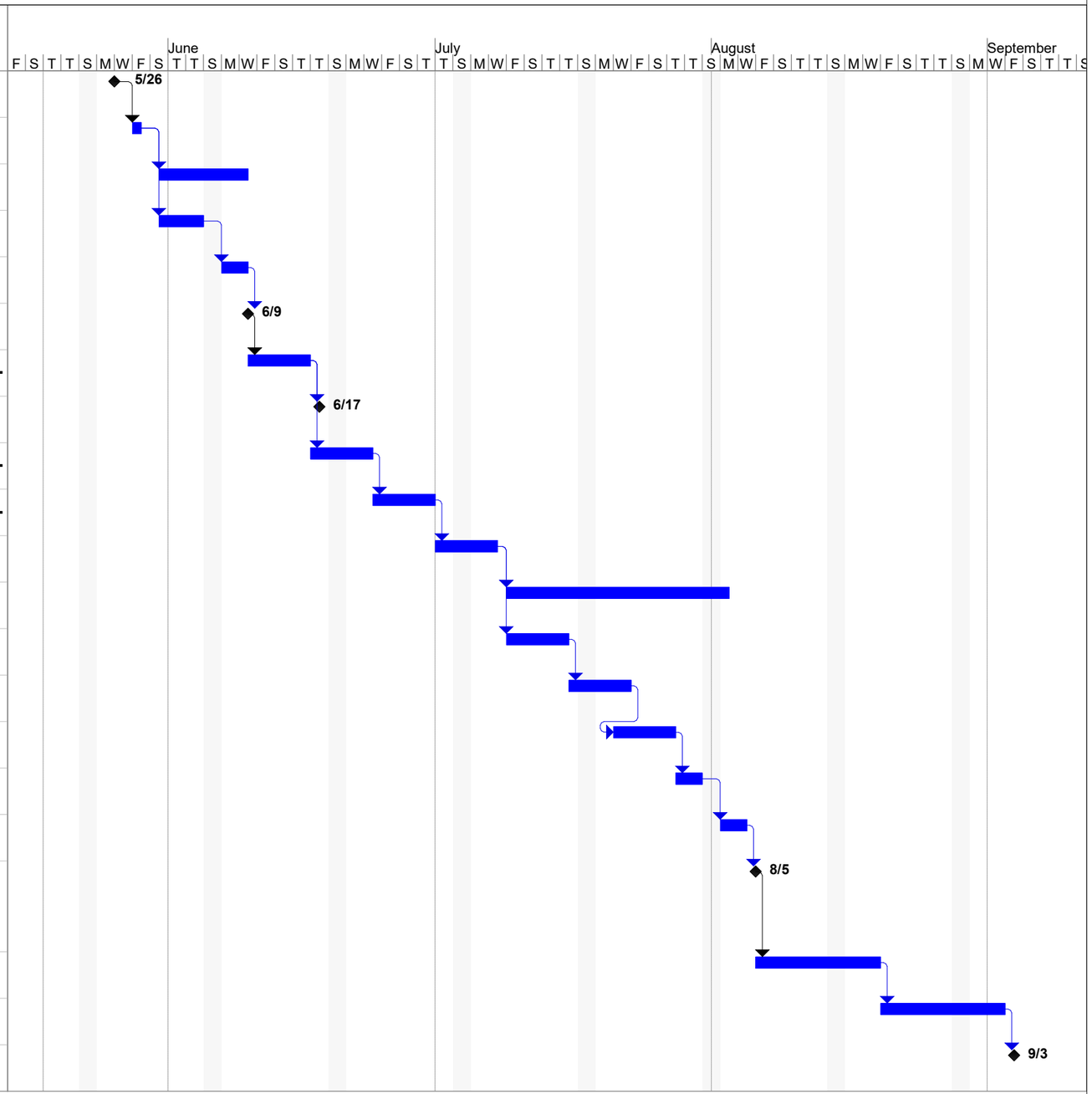
   - All contract documents, including a pdf copy of each deliverable, native electronic files, models and calculations will be uploaded to the County's project management database at each milestone and at the completion of the project. One hard copy of each deliverable will be provided unless additional copies are required per the submittal checklist.

7. EXCLUSIONS:

   a. The following items are not included in this work authorization:

   - PUBLIC INVOLVEMENT
   - SURVEY
   - ROW MAPPING
   - ENVIRONMENTAL STUDIES & DOCUMENTS
   - GEOTECHNICAL SERVICES
   - CONSTRUCTION PHASE SERVICES.
   - UTILITY COORDINATION OR RELOCATION ESTIMATES.

ID	Task Name	Duration	Start	Finish
1	**Notice To Proceed**	0 days	Wed 5/26/21	Wed 5/26/21
2	Kick-Off Meeting	1 day	Fri 5/28/21	Fri 5/28/21
3	**Route and design Studies**	8 days	Mon 5/31/21	Wed 6/9/21
4	Data Collection	5 days	Mon 5/31/21	Fri 6/4/21
5	Develop Design Criteria	3 days	Mon 6/7/21	Wed 6/9/21
6	Submittal of Design Summary Form	0 days	Wed 6/9/21	Wed 6/9/21
7	County review of draft report	5 days	Thu 6/10/21	Wed 6/16/21
8	**Schematic Development**	0 days	Thu 6/17/21	Thu 6/17/21
9	Develop roadway geometrics	5 days	Thu 6/17/21	Wed 6/23/21
10	Develop cross sections	5 days	Thu 6/24/21	Wed 6/30/21
11	Develop schematic layout	5 days	Thu 7/1/21	Wed 7/7/21
12	**Develop Schematic Drainage Study**	17 days	Fri 7/9/21	Mon 8/2/21
13	Hydrologic Study and Modeling	5 days	Fri 7/9/21	Thu 7/15/21
14	Hydraulic Study and Modeling	5 days	Fri 7/16/21	Thu 7/22/21
15	Impact and Mitigation Analysis	5 days	Wed 7/21/21	Tue 7/27/21
16	Develop Schematic Drainage Study	3 days	Wed 7/28/21	Fri 7/30/21
17	QC Review of Schematic Submittals	3 days	Mon 8/2/21	Wed 8/4/21
18	Submittal of Schematic and Schematic Drainage Study	0 days	Thu 8/5/21	Thu 8/5/21
19	County review of Schematic Submittals	10 days	Fri 8/6/21	Thu 8/19/21
20	Address review comments	10 days	Fri 8/20/21	Thu 9/2/21
21	**Submit final deliverables**	0 days	Fri 9/3/21	Fri 9/3/21



Project: CR 201/Williamson County
Date: Tue 5/18/21

Task
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progress
Deadline

ATTACHMENT "D"

COUNTY ROAD 201 WA#1 Fee Estimate	Principal	Sr. Project Manager	Sr. Project Engineer	Project Engineer II	Graduate Engineer II	Engineering Specialist IV	Sr. Planner	Project Analyst II	Total Labor Hours	Task Cost
	$230.00	$210.00	$195.00	$160.00	$125.00	$160.00	$180.00	$115.00		
1. Project Management										
b. Develop monthly progress reports, Invoices, and billing (4 months assumed)		6							**6**	
c. Develop QA/QC Plan, perform QC review for 2 submittals		2	32						**34**	
d. Project Coordination and Administration	4	24					8	4	**40**	
e. Progress Coordination Meetings (2 assumed)		4					2		**6**	
f. Develop and maintain project schedule for Project Development tasks		3							**3**	
TASK HOURS SUB-TOTALS	4	39	32	0	0	0	10	4	**89**	
TASK TOTALS	$920.00	$8,190.00	$6,240.00	$0.00	$0.00	$0.00	$1,800.00	$460.00		**$17,610.00**
2. Route and Design Studies										
a. Data Collection		4	8	8	20				**40**	
b. Stakeholder Coordination (2 meetings assumed)		4		4			4		**12**	
c. Develop Design Criteria		4	2	8					**14**	
TASK HOURS SUB-TOTALS		12	10	20	20	0	4		**66**	
TASK FEE TOTAL		$2,520.00	$1,950.00	$3,200.00	$2,500.00	$0.00	$720.00			**$10,890.00**
3. Traffic Evaluations and Projections										
a. Data Collection - obtain/analyze traffic counts									**0**	
TASK HOURS SUB-TOTALS		0	0	0	0	0	0		**0**	
TASK FEE TOTAL		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00			**$0.00**
4. Schematic Development										
a. Review existing data, develop Ultimate Schematic identifying ROW Requirements		24	12	24	24	24			**108**	
b. Prepare Cost Estimate for Ultimate Schematic		4		4					**8**	
c. Develop Ultimate Schematic Cross Sections (100' spacing)		8		24	24	24			**80**	
TASK HOURS SUB-TOTALS		36	12	52	48	48	0		**196**	
TASK FEE TOTAL		$7,560.00	$2,340.00	$8,320.00	$6,000.00	$7,680.00	$0.00			**$31,900.00**
5. Schematic Drainage Study										
a. Hydrologic Study and Modeling			8	12	40	40			**100**	
b. Hydraulic Study and modeling (5 cross drain structures assumed)			6	16	32	32			**86**	
c. Impact and Mitigation Analysis			8	12	4	8			**32**	
TASK HOURS SUB-TOTALS		0	22	40	76	80	0		**218**	
TASK FEE TOTAL		$0.00	$4,290.00	$6,400.00	$9,500.00	$12,800.00	$0.00			**$32,990.00**
TOTAL WSB LABOR HOURS	4	87	76	112	144	128	14	4	569	
TOTAL WSB LABOR COSTS	$920.00	$18,270.00	$14,820.00	$17,920.00	$18,000.00	$20,480.00	$2,520.00	$460.00		**$93,390.00**

OTHER DIRECT EXPENSES	**QUANTITY**		**UNIT**	**Rate**				**TOTAL**		
WSB Direct Expenses:										
TCEQ EARZ Submittal fee Defer to PS&E WA)	0		LS	5000				$0.00		
								$0.00		
								$0.00		
Mileage	200		miles	$ 0.575				$115.00		
SUBTOTAL DIRECT EXPENSES								**$115.00**		
SUMMARY										
Subtotal Labor			**$93,390.00**							
Subtotal Direct Expenses			**$115.00**							
TOTAL WA#1 FEE			**$93,505.00**							