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

WILLIAMSON COUNTY ROAD BOND PROJECT:
CR 123 AT BRUSHY CREEK

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 July 3, 2024 ("Contract") and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Doucet & Associates, Inc. (the "Engineer").

WHEREAS, the County and the Engineer executed Work Authorization No. _1_ dated effective July 9, 2024 (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 Maximum amount payable for services under the Work Authorization is reduced by **$161,618.32** from $575,526 to $**413,907.68** as shown in Attachment "D-2".

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, to be effective as of the date of the last party's execution below.

ENGINEER:	**COUNTY:**
By: Frank Olshefski Signature	By: _____ Signature
Frank Olshefski, PE Printed Name	_____ Printed Name
Director of Transportation Title	_____ Title
6/19/2025 Date	_____ Date

LIST OF ATTACHMENTS

Attachment B-2 – Scope of Work

Attachment D-2 – Fee Schedule

APPROVED
By Christen Eschberger at 2:43 pm, Jun 24, 2025

ATTACHMENT B-2
SERVICES TO BE PROVIDED BY THE ENGINEER FOR
CR 123 AT BRUSHY CREEK

PROJECT DESCRIPTION

Project Limits

The project is located at the CR 123 low water crossing at Brushy Creek.

Existing Facility

The existing facility is a low-water crossing structure which ties into a 2-lane uncurbed asphalt road that is roughly 20' with no shoulders or pavement markings. The existing right-of-way is approximately 60' wide.

Proposed Facility

The proposed project will replace the existing low water crossing at Brushy Creek with a new bridge that is approximately 550 feet in length. The bridge will be designed to accommodate 2 lanes with shoulders and a shared-used path lane. The engineer will determine the amount of new ROW needed to accommodate the project.

Design Criteria

Proposed design criteria for the project will be developed from Williamson County design criteria.

1. PROJECT MANAGEMENT

   a. COMMUNICATION:

      - Engineer shall 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 REPORTS, INVOICES, AND BILLINGS (Number increase from 9 to 10 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 (22 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 DESIGN SCHEDULE:

- Baseline Schedule - Submit a CPM Baseline Schedule in calendar day (CD) format to the County for approval, using P6 Primavera or Microsoft Project in both pdf and native formats within 14 calendar days of the Work Authorization execution. This schedule should detail all work activities, including those by the County affecting the critical path. It shall outline the execution strategy, critical path, milestones, deliverables, and for each activity, its predecessors, successors, start and end dates, and float. Changes to schedule activities, durations, and dates require County consent, except for adjustments due to approved supplements or County-sanctioned project duration changes.
- Progress Schedule – Submit an updated Progress Schedule with each significant milestone and/or deliverable identified by the County, detailing actual work completion percentages and incorporating all approved supplements. If the schedule deviates from the baseline, a recovery schedule approved by the County is required.

g. PROJECT DOCUMENTS/FILES:

- All contract documents, including native files, shall be turned over to the County at each milestone and at the completion of the project or as requested. Documents shall be posted to the County's project management database.

h. 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 (QAQC performed on preliminary submittals)

2. <u>ROUTE AND DESIGN STUDIES</u>

a. DATA COLLECTION:

- Perform record research and obtaining 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, geotechnical reports, pavement design reports, and drainage models and analyses. Obtain construction plans for projects within the project limits and abutting TxDOT and County Roads. 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. Pavement Condition Assessment per the Williamson County Design Manual should be conducted during the field investigation.

- Develop and maintain adjacent property ownership information (including owner's name, tenant name for leased property, mailing address, property address, property id number) spreadsheet to be used for disseminating project information.

- Review aerial photography and contours provided by Williamson County. County provided aerial photography and contours will be the basis for developing all constraints maps and route options.

- Obtain available existing traffic counts. Obtain traffic projections from the County and evaluate if the projections need adjusting. (OMITTED)

- Review the data collected and organize the information.

b. DESIGN CRITERIA:

- Submit a Design Summary Form (DSF) and typical sections in accordance with the latest version of Williamson County Design Criteria Manual.

c. CONSTRAINTS MAP (1 preliminary alignments assumed):

- Develop evaluation criteria to assist in evaluating route alignment alternatives.

- Develop a constraints map and technical memorandum that includes environmental concerns, known constraints (structures, floodplain, karst features), aerial photography, contour information, utility information, based

on research of public databases and sources and details screening measures and decision practices for eliminating non-viable corridors.

- Evaluate traffic growth patterns and estimate traffic projects for the ultimate roadway. (Omitted)

- Develop preliminary alignments and preliminary costs for use in soliciting input during coordination meetings with stakeholders.

- Refine preliminary alignment based on stakeholder input, design criteria, existing structures, potential displacements, right of way limits and requirements, known developments, FEMA floodplain areas, existing and proposed drainage structures, and issues.

d. DELIVERABLES:

- Results of Records Research of Existing Information to ProjectWise.
- Property Owner Spreadsheet and Updates
- Constraints Map Preliminary Alignments and Technical Memorandum (pdf and hardcopies)
- Constraints Map Refined Alignment and Technical Memorandum Recommendation (pdf and hardcopies) (Constraints Maps and Technical Memorandum prepared for preliminary alignments)
- Design Summary **Form** and typical sections (pdf and hardcopies)

3. PUBLIC INVOLVEMENT

a. PUBLIC INVOLVEMENT SUPPORT

- Review the project's Public Involvement plan prepared by others.
- Provide information or data for fact sheets and FAQs.
- Provide exhibits for website and other project information sites (up to [1] exhibits assumed).

b. PROPERTY OWNER MEETING SUPPORT

As this is a Road Bond Project, public involvement activities will be conducted through the County's existing public involvement contract with Rifeline. The engineer will provide support for the Public Involvement plans for the following activities:

- Prepare materials and provide support and exhibits for meetings with Individual Property Owners (up to 2 meetings assumed).
- Provide property owner exhibits identifying parent tract (including area) and right-of-way acquisition (including parcel acquisition and remainder areas).
- One person will attend meetings as requested (up to 2 meetings assumed).

c. STAKEHOLDER MEETINGS

- Coordinate with affected state and local agencies and County's consultants.
- Prepare agendas, sign in sheets, meeting minutes, discussion topics, presentations, overall exhibits, and maps of the project limits for stakeholder coordination meetings. (up to 2 meetings assumed).

d. DELIVERABLES:

- Input on fact sheets, FAQs, and exhibits for website. (Submitted)
- Property owner exhibits (native file, pdf, and hardcopies). (Submitted)
- Stakeholder meeting agendas, exhibits, and meeting minutes. (Submitted)

4. UTILITY COORDINATION SUPPORT

As this is a Road Bond Project, direct coordination with utilities will be conducted through the County's existing utility coordination contract with Cobb Fendley and Associates. The Engineer will provide support as described below:

a. INCORPORATE UTILITY INFORMATION INTO ENGINEERING DRAWINGS

- Incorporate utility information provided by others into design files.
- Add utility notes to plans and exhibits as necessary.
- Consider/incorporate utility work into traffic control phasing plans as necessary.

b. UTILITY MEETINGS

- Meet with utility coordinator and review utility impacts and potential relocations to identify appropriate approach to reducing/mitigating impacts [up to 2 meeting].
- Attend meetings with utilities as requested [up to 1 meeting]. (Omitted)

c. DELIVERABLES:

- Utility information incorporated into plans and design files.
- Reviews of utility relocation plans.

5. RIGHT OF WAY (ROW) AND MAPPING

a. ROW MAP:

- Research and compiled deed/plat records and build a working map from recorded data. (Compiled documents needed for ROW Map)

- Calculate approximate search data to recover right of way monumentation and make initial pass to recover right of way monumentation. (Completed)

- Draft preliminary right of way map and list of impacted tracts. (Completed)

b. PARCEL ACQUISITION DOCUMENTS (**6** parcel documents assumed, **2** stakings assumed, **2** exhibits assumed): (25 properties reviewed and evaluated to determine parcel documents needed, 0 staking assumed, 1 exhibit assumed)

- Upon approval of final schematic, prepare a right of way strip map. (Submitted)

- Prepare draft parcel sketches and field notes documents for right of way parcel and easement acquisition. Note any improvements requiring removal/relocation. (Omitted)

- Provide property owner exhibits identifying Parent tract (including area), Right-of-way acquisition (including parcel acquisition and remainder areas), and proposed improvements adjacent to the property as needed. (Omitted)

c. MONUMENTATION AND ROW STAKING:

- Set appropriate monumentation in accordance with County requirements. Prepare signed and sealed documents for right of way parcel and easement acquisition. (Omitted)

- Stake proposed right of way with suitable markers as requested on a parcel by parcel basis for the purposes of fence construction, utility installation, or property owner requests. (Omitted)

d. DELIVERABLES:

- Preliminary ROW Map and affected property owner list (drawing file, pdf, and hardcopies) (Submitted)
- Final ROW Map and affected property owner list (drawing file, pdf, and hardcopies) (OMITTED)
- Draft Parcel Acquisition Documents (pdf) (OMITTED)
- Final Parcel Acquisition Documents (one original and pdf) (OMITTED)
- Property owner exhibits (drawing file, pdf, and hardcopies) (Submitted)

6. CONDEMNATION SUPPORT (OMITTED)

a. CONDEMNATION HEARING EXHIBITS

- Prepare preliminary and final condemnation hearing exhibits for [2 ROW Parcels.
- Exhibits (each exhibit should include high-resolution aerial imagery) including the following information:
    - A vicinity map with an overall project layout and limits (beginning and end)
    - Existing and proposed typical road sections
    - Parent tract (including area)
    - Right-of-way acquisition (including parcel acquisition and remainder areas),
    - Proposed improvements adjacent to the property.

b. CONDEMNATION HEARINGS

- Engineer will attend meetings with the attorney to prepare for the hearings.

- Engineer will attend [2] condemnation hearings in-person and testify as an expert witness on the Project to discuss matters related to drainage, grading, environmental compliance, basic hydrologic, hydraulic and geotechnical information.

c. DELIVERABLES

- Preliminary and Final Condemnation Hearing Exhibits in pdf format.

7. SURVEYING

a. RIGHT OF ENTRY ([25] letters assumed):

- Upon receiving approval from GEC, prepare and mail right of entry letters per the County's standard for the project team including geotechnical and environmental. Send a second follow up letter to non-responsive property owners.

b. FIELD SURVEYING:

- Survey the corridor area at approximately 50 foot intervals and to include 100 feet on either side of the proposed roadway centerline as necessary to produce one-foot interval contours. Information collected will typically include as follows: visible improvements and visible utilities including driveways, water wells, storage tanks, drainage structures (size, material, flowline elevations), edge of pavement/shoulder, physical centerline, roadway striping, guardrail, fences, signs, mailboxes, top and bottom of drainage ditches, sidewalk, and trees 8" inch diameter and greater.

- Establish horizontal and vertical control and set temporary benchmarks as needed. The survey control points shall be set in locations that will likely be undisturbed by construction or County maintenance.

c. DELIVERABLES:

- Right of Entry Letters, Follow Up Letters, and Executed Right of Entry Documents. (Submited 25 ROE letters and followup letters)
- Mapping in 2-D and 3-D MicroStation Files (Grid or Datum) (Submitted)
- PDF of each Surveyor Project Notebook (Submitted)
- DTM of Proposed Corridor (Submitted)

- Survey control sheets (Submitted)

8. SCHEMATIC DEVELOPMENT

   a. SCHEMATIC:

      - Prepare preliminary schematic submittal per Williamson County submittal requirements and selected design criteria including proposed cross sections, typical sections, roadway centerline, proposed drainage structures, direction of flow and number of travel lanes, intersecting streets, property boundaries and information, ROW and easement locations, preliminary pavement section, driveway locations, horizontal alignment data, profile data, identification of known utilities, retaining wall and bridge locations.

      - Prepare final schematic submittal per Williamson County submittal requirements and selected design criteria.

   b. DELIVERABLES:

      - Preliminary Schematic Submittal including cost estimate per submittal requirements. (Multiple Schematic Alternatives were provided including an alternate alignment with cost estimates)

      - Final Schematic Submittal including cost estimate per submittal requirements. (Omitted)

9. DRAINAGE STUDY

   a. HYDROLOGIC/HYDRAULIC MODELING ([1] major channel crossings, [0] cross drainage structures assumed):

      - Prepare hydrologic and hydraulic models or modify existing models (FEMA, drainage districts, river authorities, cities, etc.) if available, to define the drainage infrastructure required for the project. Detail the methodologies employed and recommendations. The analysis will include: preparation of a preliminary design of the right of way drainage system, cross drainage structures, right-of-way drainage, major channel crossings to reflect the existing and proposed conditions, recommended minimum pavement elevations based on cross drainage flood elevations, right of way requirements, identify potential needs for FEMA Coordination. HEC-RAS shall be utilized for all stream

modeling. HY-8 will be utilized for all culverts. Atlas 14 impacts will be reviewed and incorporated.

- Develop existing channel cross sections based on data collection.
- Exhibits and analysis will be prepared in the GIS environment to the extent practical.

b. FEMA COORDINATION:

- Coordinate with Local Floodplain Administrator as necessary throughout the project.
- Prepare and submit Conditional Letter of Map Revision (CLOMR) (Omitted)
- Prepare and submit Letter of Map Revision (LOMR). (Omitted)
- Pay Application Fee(s). (Omitted)

c. IMPACT AND MITIGATION ANALYSIS:

- Prepare an impact analysis to determine increases in peak flow rates for the 100-year storm including: existing and proposed peak flow rates, mitigation analysis, conceptual detention basin layouts, design of control structures, routing of storm hydrographs through basins, calculate the volume of fill to be placed in the 100-year floodplain, and recommend locations for compensatory storage.

d. SCOUR ANALYSIS ([1] crossings assumed): (Omitted)

- Prepare a scour analysis for stream crossing(s) based on the design, results of boring data, and HEC-RAS hydraulic modeling of the proposed bridge crossing per *Evaluating Scour at Bridges (HEC 18)*.

e. DELIVERABLES:

- Preliminary & Final Drainage Report. (Performed Preliminary analysis on 13 scenarios included HEC-RAS 1D and 2D / Final Omitted)
- Preliminary & Final CLOMR. (Omitted)
- Preliminary & Final LOMR. (Omitted)

- Draft & Final Scour Analysis (Omitted)

10. ENVIRONMENTAL SERVICES

a. COUNTY DUE DILIGENCE:

- The Environmental Services will include studies and documentation required, per the Williamson County Environmental Protocol, for the various regulating authorities, including the Texas Historical Commission (THC), U.S. Army Corp of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), Williamson County Conservation Foundation (WCCF), and TCEQ. The intention of the Environmental Services is to attain necessary clearance letters and approvals in order to proceed with the proposed project.

b. DATA COLLECTION & FIELD RECONNAISSANCE:

- Obtain and update periodically publicly available information including but not limited to: locations of public buildings (schools, churches, parks), aerial photography, National Wetland Inventory maps, County Soil Survey maps, TCEQ & EPA Hazardous Materials Database information, FEMA floodplain information, vegetation information, environmental information from the appropriate local, state, or federal agencies, including for state and federally-listed species, Edwards Aquifer information.

- Conduct a regulatory records review to identify listed hazardous waste generators, treatment, storage and disposal facilities; solid waste landfills, unauthorized sites; documented spills; oil and gas exploration and production sites; and underground storage tank sites within the proposed site location. The review will also identify other environmental risks along the project corridor.

- Conduct field reconnaissance to visually inspect the project site for additional risks and field verify any environmental risks identified by the regulatory records review.

c. HAZARDOUS MATERIALS ENVIRONMENTAL SITE ASSESSMENT:

- Prepare a Hazardous Materials Environmental Site Assessment (ESA) based on the data collection and field reconnaissance conducted and identify potential hazardous material sites that may be impacted by the proposed project.

d. SECTION 404 CLEAN WATER ACT COMPLIANCE:

- Conduct a site visit that will determine if water resources are present. If no water resources are identified in the project area, document these findings in the water resources section of the due diligence report.

- If water resources are present, delineate wetland boundaries and ordinary high-water marks of jurisdictional waters within the project ROW. Prepare a Jurisdictional Waters Delineation Report identifying: specific impacts of the project on the Waters of the U.S., measures to minimize the impacts will be identified, and discuss applicable Section 404 options in accordance with current permits and conditions based on data collection and field reconnaissance. It is anticipated that this project will be covered under a Nationwide Permit (NWP 14) without a pre-construction notification (PCN).

If it is determined, after the Jurisdictional Waters Delineation Report, that a PCN is required; a supplemental work authorization would be required. The Jurisdictional Waters Delineation Report and NWP with PCN are subject to the U.S. Army Corps of Engineers Forth Worth District review and issuance of a permit.

e. HISTORICAL SITE COMPLIANCE:

- Prepare a historic building survey that will follow the Secretary of the Interior's Standards and guidelines for Archeology and Historic Preservation and document historic buildings and structures within the Area of Potential Effect based on data collection and field reconnaissance.

f. TEXAS ANTIQUITIES CODE (TAC) COMPLIANCE:

- Prepare a Project Initiation Letter, Texas Antiquities Permit Application, and Associated Scope of Work based on data collection and field reconnaissance.

- Conduct a pedestrian survey and report of sufficient intensity to determine the nature, extent, and potential significance of any cultural resources located within the Area of Potential Effect in accordance with full report guidelines as outlined by the Texas Historical Commissions Rules of Practice and Procedures.

- Coordination with Texas Historical Commission including submittals to Texas Historical Commission and project records to the appropriate curation facility per Texas Historical Commission requirements.

g. DELIVERABLES:

- Draft & Final Environmental Due Diligence Report
- Draft & Final Regulatory Records Review
- Draft & Final Hazardous Materials Environmental Site Assessment (ESA) Report (Final report was ready for submittal prior to work stoppage.)
- Draft & Final Wetlands Determination/Jurisdictional Waters Determination
- Draft & Final Endangered Species Letter – (by others)
- Draft & Final Historic Building Survey
- Draft & Final Texas Antiquities Permit Application Associated Scope of Work and Report
- Provide Final Acceptance Correspondence of Approval of Permits (Omitted)

11. GEOTECHNICAL SERVICES

a. BORINGS:

- The minimum spacing and depth of borings for retaining walls, bridges, slopes and embankments per the latest TxDOT Geotechnical Manual. Minimum depth for retaining wall borings shall be to a depth of at least where stress increase due to estimated foundation load is less than ten percent of the existing effective overburden stress at that depth and between one and two times the wall height as well as penetrate soft highly compressible soils. Borings are to be performed for each significant high-mast tower, overhead sign structure, or culvert to a depth of 10 feet below bottom of foundation. Groundwater elevations shall be taken 15 minutes after initial encounter with groundwater. Additional groundwater elevations shall be taken where clay soils are encountered to obtain a static water level. Field testing shall consist of either the Texas Cone Penetrometer (TCP) or the Standard Penetration Test (SPT) at a minimum of 5 foot intervals. In between the TCP/SPT interval obtain Shelby Tube samples and bag samples appropriate for laboratory testing. Pavement boring spacing shall be performed at intervals per the TxDOT Pavement Design Manual and should be to a depth of 15 feet.

- The Engineer shall be responsible for Soil Core Hole Drilling required for bridges, retaining walls, embankment, culvert, sign illumination, high-mast tower, and pavement borings. The Engineer shall follow the procedures in the TxDOT Geotechnical Manual and will contact the appropriate utility location services to have underground utilities located prior to drilling in an area. (Omitted)
- The soil borings will be properly backfilled with bentonite chips and a single lift of cold patch asphalt where applicable. The soil samples will be obtained using Shelby tubes and/or split-spoon samplers. Field-testing of soil samples will include pocket penetrometer in the cohesive soils and Standard Penetration Test (SPT) in the cohesionless soils. Texas Cone Penetrations will be performed in the culvert borings at five-foot intervals. (Omitted)
- The Geotechnical Engineer shall obtain a copy of the plans to be used in authoring the Geotechnical and Pavement Report. The purpose is to provide accurate plan information in these reports. (Omitted)

b. GEOTECHNICAL REPORTS: (OMITTED)

- Perform appropriate laboratory tests on soil samples recovered from the borings. Laboratory testing will include but not limited to: moisture content, liquid limit, plastic limit, unconfined compression, Texas Triaxial, resilient modulus, and free swell, sulfate testing, and particle size analysis tests, visual classification, dry density, California Bearing Ratio (CBR) tests, sulfate content tests, lime series analyses.

- Provide a Geotechnical Investigation for the project evaluated by a professional geotechnical engineer Licensed in the State of Texas. The following items will be included in the geotechnical report: soil boring locations, boring logs (TxDOT Wincore output graphs/format), and plan of borings, subsurface exploration procedures, encountered subsurface conditions, field and laboratory test results, description of surface and subsurface conditions, groundwater conditions/readings, analysis and recommendations for settlement and slope stability of the earthen embankments; and culvert bedding, analysis and recommendations for wingwalls, headwalls, and retaining walls, general earthwork recommendations, wall backfill limits, Swell potential evaluations, Pavement thickness design alternatives with subgrade stabilization, PVR calculations.

- Provide geotechnical analysis needed for pavement design, foundation design, and slope stability, as required. For retaining walls, Engineer will provide calculations including global stability, sliding, bearing capacity, and overturning and recommendations for minimum footing depth. Where retaining walls will be inundated due to water, a drawdown analysis is required. In addition, retaining wall backfill type shall be specified. A sketch is required showing the backfill type and limits. Show the limits of the foundation material, aggregate backfill material, and retained fill. Provide the information to include in an RW(MSE)DD plan sheet. For bridge foundation design, the capacity curves shall be adjusted for the upper moisture change zone (5 to 10 feet) and scour.
- The pavement design will include consideration of traffic loads to be estimated by the Engineer. Pavement design shall follow the latest Williamson County Design Manual. The traffic data required includes current and projected traffic counts and truck percentages. The Engineer will prepare four (4) flexible pavement design alternatives and one (1) rigid pavement design alternative. Flexible pavement design alternatives shall include: subgrade stabilization utilizing lime and flexible base layer (if lime is not recommended, an explanation shall be provided for approval by the County Engineer); full depth asphalt section; driveway section; temporary full depth asphalt pavement section. Rigid design alternative shall include flexible base, HMAC Bond Breaker, and continuous reinforced concrete pavement. Geogrid reinforcement will also be considered in these designs. Identify areas of possible sulfates in subgrade. Pavement thickness options are to use the latest version of **TxDOT FPS-21**.

c. DELIVERABLES:

- Draft & Final Pavement Design Report (Performed: Initial Site Visit and Visual Inpection of existing pavement conditions)
- Draft & Final Bridge Design Report (Performed: Initial Site Visit for boring location planning)
- Draft & Final Retaining Wall Report (Performed: Initial Site Visit for boring location planning)

12. EXCLUSIONS

a. Plan Preparation

b. Construction Phase Services

Attachment D-2: Fee Schedule
Doucet & Associates, Inc, a Kleinfelder Company
24RFQS11 Engineering Services for Williamson County Road Bond Project
CR 123 Bridge at Brushy Creek

Task	Principal Engineer (PE)	Senior Project Manager (PE)	Senior Project Engineer (PE)	Project Engineer III (PE)	Project Engineer II (PE)	Project Engineer I (PE)	Engineer Associate III	Engineer Associate II	Engineer Associate I	Sr. Civil Technician	Civil Technician	Engineering Intern	Environmental Project Manager	Environmental Specialist	Archaeologist	Project Coordinator	Principal Surveyor (RPLS)	Project Manager (RPLS)	Survey Specialist (SIT)	Survey Technician	GIS Specialist	LiDAR Specialist	LiDAR Technician	Crew of 2		Total Hours	Total Labor
Rates	$295.00	$275.00	$215.00	$195.00	$185.00	$170.00	$160.00	$150.00	$135.00	$165.00	$145.00	$90.00	$200.00	$145.00	$165.00	$135.00	$290.00	$245.00	$150.00	$125.00	$155.00	$150.00	$120.00	$170.00			
1. Project Management and Coordination	0	243	0	10	0	3	0	17	35	0	0	0	20	0	0	0		0							0	327	$ 80,331.25
a. Designate a PM for all communication with County		40			0																					40	$ 11,020.00
b. Monthly Progress Reports, Invoices , Including Deliverable Table (Assume 10 months)		26						3	35																	64	$ 12,291.25
c. Project Specific QA/QC Plan		20																								20	$ 5,500.00
d. Project Coordination and Administration		98				3		14																		114	$ 29,442.50
e. Progress/Coordination Meetings (20 assumed)		40		10																						50	$ 12,852.50
f. Project Schedule and Updates		19											20													39	$ 9,225.00
2. Route and Design Studies	0	9	32	0	0	80	0	0	32	40	0	0	0												0	193	$ 33,847.50
a. Data Collection		2	4				0		12																	18	$ 3,002.50
b. Review data collected and organize information		1	4						12																	17	$ 2,755.00
c. Design Criteria		2	8						8																	18	$ 3,350.00
d. Constraints Map & Technical Memorandum (1 Alternative Concept)		4	16			80				40																140	$ 24,740.00
3. Public Involvement	0	8	9	0	0	13	0	0	0	8	2	0	0			0									0	40	$ 7,972.50
a. Public Involvement Support		2	3			13				8	2					0										28	$ 5,032.50
b. Property onwer meeting support (assume 2 meetings)		6	6																							12	$ 2,940.00
c. Stakeholder meeting (assume 2 meeting)																										0	$ -
																											$ -
4. Utility Coordination Support	0	10	6	1	0	15	0	0	10	24	0	0	0												0	68	$ 12,100.00
a. Incoporate utility information into engineering drawings		8	6	1		15			10	24																64	$ 11,550.00
b. Utility Coordinator meetings (assume 2 meetings)		2																2								4	$ 550.00
c. Utilities Meeting as requested (assume 1 meeting)																										0	$ -
5. Right of Way and Mapping	0	0	0	0	0	0	34	15	9	0	0	0	0												0	345	$ 56,686.25
a. Right of Entry (assume 25 letters)							20	10	9									3	2	4	6	2	0	5		61	$ 9,445.00
b. ROW Map							14	5										23	34	12	0	20	0	17		124	$ 20,961.25
c. Parcel Acquisition (assume 6 documents)																		16	30	18	0	30	0	18		112	$ 18,230.00
d. Monument and ROW Staking																			8	4	0	8	0	12		32	$ 4,940.00
e. QA/QC																		8	3	2	0	3	0	0		16	$ 3,110.00
6. Condemnation Support	0	0	0	0	0	0	0	0	0	0	0	0	0												0	0	$ -
a. Condemnation hearing exhibits (assume 2 parcel)																										0	$ -
b. Condemnation hearings attendance (assume 2 hearings)																										0	$ -
7. Surveying	0	0	0	0	0	0	0	0	0	0	0	0	0												0	234	$ 39,513.75
a. Control Survey																	0	6	10	4	2	0	0	24		46	$ 7,860.00
b. Design Topographic and Tree Survey																	0	12	25	16	2	6	4	72		137	$ 22,653.75
c. Utility Mapping/811 One-Call Survey																	0	6	4	2	6	0	0	16		34	$ 5,970.00
d. QA/QC																	2	4	3	6	0	1	1	0		17	$ 3,030.00
8. Schematic Development	4	12	25	0	51	0	0	0	0	199	0	0	0												0	291	$ 52,086.25
a. Prepare preliminary schematic & cost estimate		2	19		39					161																221	$ 38,376.25
b. Prepare final schematic & cost estimate		2	6		12					38																58	$ 10,330.00
c. QA/QC	4	8																								12	$ 3,380.00
9. Drainage Study	1	85	50	121	0	0	183	0	20	0	0	0	0	0	0	0									0	272	$ 90,000.00
a. H&H Modeling (assume 1 cross culverts)		41		64			135		16																	256	$ 47,520.00
b. FEMA Coordination		8		8																						16	$ 3,760.00
c. Impact and mitigation analysis		32	25	49			48		4																	158	$ 31,950.00
d. Scour Analysis																										0	$ -
e. QA/QC	1	4	25																							30	$ 6,770.00
10. Environmental Services	0	0	0	0	0	0	0	0	0	0	0	0	33	81	106	0									0	220	$ 35,773.75
a. County Due Diligence													10	6	8											24	$ 4,190.00
b. Data Collection & Field Reconnaissance													5	34	50											89	$ 14,191.25
c. Hazardous Materials Initial Site Assessment													5	17	14											36	$ 5,702.50
d. Section 404 Clean Water Act Compliance													3	13												16	$ 2,485.00
e. Endangered Species Act Compliance (By Others)																										0	$ -
f. Historical Site Compliance													5	6	24											35	$ 5,830.00
g. Texas Antiquities Code (TAC) Compliance Texas Antiquities Code													5	5	10											20	$ 3,375.00
h. Provide Final Acceptance Correspondence of Approval of Permits																										0	$ -
11. Geotechnical Services	0	2	5	0	0	9	0	0	7	0	0	0	0			3									0	26	$ 4,522.50
a. Borings		1	2			7			7																	17	$ 2,848.75
b. Geotechnical Reports		1	3			2										3										9	$ 1,673.75
12. Plan Preparation	0	0	0	0	0	0	0	0	0	0	0	0	0												0	0	$ -
a. Use Wilco criteria																										0	$ -
b. Roadway Design																										0	$ -
i. Refine horizontal and vertical alignments - P&P sheets																										0	$ -
ii. Existing and proposed typical sections																										0	$ -
iii. Create cross sections																										0	$ -
c. Drainage																										0	$ -
i. Prepare hydraulic calculations																										0	$ -
ii. Develop drainage area maps																										0	$ -
iii. Design storm sewer sheets																										0	$ -
iv. Design on-site stormwater detention measures																										0	$ -
d. Signing, Markings, & Signalization																										0	$ -
i. Prepare signing and marking layouts																										0	$ -
ii. Prepare traffic signal warrant study (assume 3 intersections)																										0	$ -
iii. Prepare traffic signal operations analysis																										0	$ -
iv. Prepare traffic signal sheets (assume 3 intersections)																										0	$ -
e. Traffic Control																										0	$ -
f. Water quality																										0	$ -
i. Prepare qater quality BMPs																										0	$ -
ii. Develop draft and final TCEQ Contributing Zone Plan																										0	$ -
iii. Prepare SW3P and EPIC sheet																										0	$ -
13. Permits	0	0	0	0	0	0	0	0	0	0	0	0	0												0	0	$ -
a. Prepare necessary permits																										0	$ -
																										0	$ -
14. Bidding Phase Services	0	0	0	0	0	0	0	0	0	0	0	0	0												0	0	$ -
a. Prepare all applicable construction documents for bidding																										0	$ -

Attachment D-2: Fee Schedule
Doucet & Associates, Inc, a Kleinfelder Company
24RFQS11 Engineering Services for Williamson County Road Bond Project
CR 123 Bridge at Brushy Creek

Task	Principal Engineer (PE)	Senior Project Manager (PE)	Senior Project Engineer (PE)	Project Engineer III (PE)	Project Engineer II (PE)	Project Engineer I (PE)	Engineer Associate III	Engineer Associate II	Engineer Associate I	Sr. Civil Technician	Civil Technician	Engineering Intern	Environmental Project Manager	Environmental Scientist	Archaeologist	Project Coordinator	Principal Surveyor (RPLS)	Project Manager (RPLS)	Survey Specialist (SIT)	Survey Technician	GIS Specialist	LiDAR Specialist	LiDAR Technician	Crew of 2		Total Hours	Total Labor
b. Attend pre-bid meeting, respond to bidder questions. Attend pre-construction conference																										0	$ -
																										0	$ -
Total ASI Direct Labor Hours	5	369	127	132	51	120	217	32	112	271	2	0	53	81	106	3	2	80	119	68	16	70	5	163	2202	2202	
Percent of Total Hours	0%	17%	6%	6%	2%	5%	10%	1%	5%	12%	0%	0%	2%	4%	5%	0.1%	0.1%	4%	5%	3%	1%	3.2%	0.2%	7%	100%	100.0%	
Total DOUCET Direct Labor Cost																											**$ 412,833.75**
Total Other Direct Expenses Cost																											
Total Subconsultants Cost																											$ -
TOTAL PROJECT COST																											**$ 412,833.75**

15. Direct Expenses																											$ 1,073.93
a. CLOMR FEE to FEMA																											$ -
b. TRAFFIC CONTROL EXPENSE																											$ -
c. DRILLER EXPENSE																											$ -
d. LAB TESTS																											$ -
g. ODE																											$ 1,073.93
Total Direct Expenses																											**$ 1,073.93**
Total Cost																											**$ 413,907.68**

Contract Amount:	$575,526.00
Labor Charges:	$413,907.68
Contract Remaining:	$161,618.32

ATTACHMENT D-2: FEE SCHEDULE
WILLIAMSON COUNTY
CR 123
Other Direct Expenses (Doucet)

Direct Expenses	Rate	Unit	Quantity	Cost
CADD Color Plotting (Per SQ FT)	$ 1.50	Square Feet	200	
Meals (Excluding alcohol & tips) (Overnight stay required)	$ 25.000	Each	4	
Photocopies B/W (8.5x11)	$ 0.15	Each	100	
Photocopies B/W (11x17)	$ 0.60	Each	75	
Color Copies (8.5x11)	$ 0.49	Each	100	
Color Copies (11x17)	$ 1.00	Each	75	$ 87.12
Toll Charges	$ 10.00	Each	8	$ 254.22
Mileage	$ 0.66	Miles	1000	$ 252.59
			SUB TOTAL	**$ 593.93**
				$ -
			SUB TOTAL	**$ -**
				$ -
			SUB TOTAL	**$ -**
Environmental (Doucet)				
HazMat supplemental records	$ 300.00	Each		$ -
ERIS	$ 1,000.00	Each		$ 480.00
Site Forms	$ 110.00	Each		$ -
Curation Fee	$ 250.00	Each		$ -
			SUB TOTAL	**$ 480.00**
TOTAL				**$ 1,073.93**