EXHIBIT C

WORK AUTHORIZATION

(To Be Completed and Executed After Contract Execution)

WORK AUTHORI	ZATION NO. 1
PROJECT: _RM 2243	3

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and _BGE, 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 \$3,950,253.00_.
- M 12/31/19
- 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 _July 31, 2021_. 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.

and O	- 11	
EXECUTED this day of arreary, 2	20 <u>20</u>	
ENGINEER:	COUNTY:	
By: Williamson County, 7 Signature	By: Signature	_
Wesley Jasek, PE Printed Name	Bill Gravell Jr. Printed Name	_
Vice President Title	County Judge	_ K
LIST OF ATTACHMENTS		M 12 31 1
Attachment A - Services to be Provided by County		
Attachment B - Services to be Provided by Engineer	r	

Attachment C - Work Schedule

Attachment D - Fee Schedule

ATTACHMENT A SERVICES TO BE PROVIDED BY THE COUNTY DESIGN SERVICES FOR RM 2243

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 that are unwilling to grant access to the Engineer.
- 4. Provide available appropriate County data on file, 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 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.
- 7. Submittal of documentation to regulatory agencies for review and comment, when specified.
- 8. Support project development efforts with stakeholders, coordinate meetings and interface with stakeholders, as needed.
- 9. Post and maintain project information for public consumption on the County website.
- 10. Assist with Coordination between the Engineer and the County's other subconsultants.
- 11. Negotiate with all utility companies for any agreements and/or relocations required.
- 12. Provide an agent as necessary to secure proposed ROW.
- 13. Review Engineer progress, submittals, and plan changes.

Page 1 of 1 Attachment A RM 2243
BGE, Inc.

ATTACHMENT B – WA#1 SERVICES TO BE PROVIDED BY THE ENGINEER PRELIMINARY ENGINEERING FOR RM 2243

PROJECT DESCRIPTION

Existing Facility

RM 2243 is currently a 2-lane, east-west rural roadway.

Proposed Facility

A full access-controlled freeway with 4 to 6 main lanes and 4 to 6 frontage road lanes, with approximately 350 feet of right of way (ROW). This includes ultimate interchanges at 183A, Southwest Bypass and consideration for an interchange at Ronald Reagan.

Design Criteria

Project-specific design criteria (typical sections, design speed, functional classification, geometric criteria, etc.) shall be identified and documented and shall be in accordance with the latest version of Williamson County design criteria, the Texas Department of Transportation (TxDOT) Manuals, American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets, TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, Highway Capacity Manual - Transportation Research Board, AASHTO - A Policy on Design Standards Interstate System, and other associated local and State Manuals, as applicable.

FUNCTION CODE 145 - PROJECT MANAGEMENT

A. COMMUNICATION:

 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:

- Submit monthly progress status reports to the GEC. Progress reports will include: 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, provide evidence of an 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.
- Correspondence and coordination will be handled through and 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, 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 ([20] 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.

DELIVERABLES:

- Monthly Invoices and Progress Reports
- Project Specific QA/QC Plan
- Meeting Minutes, Sign-In Sheets, and Agendas
- Project Schedule

FUNCTION CODE 110 - FEASIBILITY STUDIES

A. ROUTE AND DESIGN STUDIES

DATA COLLECTION:

- Utilizing the information provided in the TxDOT Study, supplement record research and obtain existing information, including but not limited to: as-built plans, construction plans, ROW maps, studies, future land use maps, floodplain data, floodplain 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 within the study 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 (including owner's name, mailing address, property address, property id number) spreadsheet to be used for disseminating project information.
- Review the data collected and organize the information.

TRAFFIC EVALUATIONS AND PROJECTIONS

• A review of previous traffic studies performed by TxDOT

DESIGN CRITERIA

• The Engineer shall identify project-specific design criteria (typical sections, design speed, functional classification, geometric criteria) in accordance with the latest version of Williamson County criteria, the TxDOT Manuals, AASHTO Policy on Geometric Design of Highways and Streets, TxDOT Standard Specifications for Construction of Highways, Streets, and Bridges, Highway Capacity Manual - Transportation Research Board, AASHTO – A Policy on Design Standards Interstate System, and other associated local and State Manuals, as applicable.

DELIVERABLES:

- Draft Design Summary Report (DSR)
- Final Design Summary Report (DSR)

PRELIMINARY COST ESTIMATES

• Preliminary cost estimates shall be developed utilizing the most current TxDOT Statewide and District bid tabs, as applicable. Estimates shall be developed in present day dollars and escalated to the projected year of construction. The Engineer shall develop construction cost estimates for Recommended Alternative. The cost estimate for the Recommended Alternative shall include significant construction elements such as structures, retaining walls, pavement structures, and approximate cut and fill quantities. The Engineer shall provide ROW cost estimates, including compensable and non-compensable utility relocations, for the Recommended Alternative based upon per-acre/utility type costs.

DELIVERABLES:

• Final Preliminary Cost Estimates

PRELIMINARY RIGHT OF WAY REQUIREMENT

• Preliminary ROW requirements and associated costs shall be determined for the Recommended Alternative in accordance with the latest version of Williamson County criteria, the TxDOT Manuals, AASHTO Policy on Geometric Design of Highways and Streets, TxDOT Standard Specifications for Construction of Highways, Streets, and Bridges, Highway Capacity Manual - Transportation Research Board, AASHTO - A Policy on Design Standards Interstate System, TxDOT ROW and Survey Manuals, and other associated local and State Manuals, as applicable. Determine current ROW widths based on TxDOT as-built plans and the Williamson County Appraisal District published information.

DELIVERABLES:

- Estimated ROW location on alignment maps
- Estimated ROW Cost

B. SCHEMATIC DEVELOPMENT:

SCHEMATIC:

- Implement revisions to existing TxDOT schematic based on Stakeholder input and agreed upon by Williamson County.
- 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, guide signs, illumination, conceptual traffic control phasing, preliminary retaining and/or noise walls.

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

TRAFFIC EVALUATIONS AND PROJECTIONS

 Traffic data and analysis results provided by TxDOT will be shown on schematic and used to determine locations of required dedicated turn lanes along frontage roads.

DELIVERABLES:

- Preliminary [Interim/Ultimate] Schematic Submittal including cost estimate and all related electronic design files
- Final [Interim/Ultimate] Schematic Submittal including cost estimate and all related electronic design files
- Preliminary [Interim/Ultimate] Construction Sequencing Submittal including roll plots and all related electronic design files
- Final [Interim/Ultimate] Construction Sequencing Submittal including roll plots and all related electronic design files.

C. DRAINAGE STUDY

<u>HYDROLOGIC/HYDRAULIC MODELING ([18] major channel crossings, [17] cross</u> 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 ROW drainage system, cross drainage structures, ROW drainage, major channel crossings to reflect the existing and proposed conditions, recommended minimum pavement elevations based on cross drainage flood elevations, ROW requirements, identify potential needs for FEMA Coordination and storm sewer analysis at interchanges and frontage roads. HEC-RAS shall be utilized for all stream modeling.
- Develop existing channel cross sections based on data collection.

FEMA COORDINATION:

 Coordinate with Local Floodplain Administrator as necessary throughout the project.

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.

WATER QUALITY ANALYSIS:

 Prepare an impact analysis to determine preliminary design and ROW needs for accommodation of water quality treatment BMPs in accordance with TCEQ Edwards Aquifer Protection Program.

DELIVERABLES:

• Preliminary & Final Drainage Report.

D. GEOTECHNICAL SERVICES

- The Engineer shall determine the location of proposed soil borings for pavement and bridge design, embankment settlement analysis, retaining walls, slope stability and along storm drain alignment in accordance with the latest edition of TxDOT Manuals. Williamson County will review and provide comments for a boring layout submitted by the Engineer showing the general location and depths of the proposed borings. Once the Engineer receives the County's review comment's they shall perform soil borings (field work), soil testing and prepare the boring logs in accordance with the latest edition of TxDOT Manuals and TxDOT's District's procedures and design guidelines. Pavement soil borings should include one core every mile (8 total).
- All geotechnical work should be performed in accordance with the latest version of TxDOT Manuals. All testing shall be performed in accordance with the latest version of TxDOT's Manual of Test Procedures. American Society for Testing Materials (ASTM) test procedures can be used only in the absence of the State's procedures. All soil classification should be done in accordance with the Unified Soil Classification System.
- Foundation Studies: The Engineer shall coordinate with the County to determine the location of soil borings to be drilled along the retaining wall alignments. The

soil borings shall extend a minimum of 35 feet below the footing elevation or deeper as soil conditions warrant. Bridge soil borings should include 2 per bridge (16 total). The Engineer shall provide a boring layout for the County's review and comment.

- The Engineer shall incorporate soil boring data sheets prepared, signed, sealed, and dated by the Geotechnical Engineer. The soil boring sheets shall be in accordance with TxDOT's WINCORE software as can be found on the TxDOT website.
- Pavement Design: The Engineer shall provide an approximate pavement design based on local similar projects for the cost estimate. The Engineer shall provide a draft and final pavement design for the recommended alternatives.

DELIVERABLES:

- Recommended Boring Location Layout
- Geotechnical Report
- DGN files containing drilling log data from Geotechnical analysis
- Preliminary Recommended Pavement Design based on area experience
- Draft and Final Pavement Design

FUNCTION CODE 120 – SOCIAL/ECON/ENVIRON STUDIES

A. PUBLIC INVOLVEMENT

STAKEHOLDER COORDINATION ([30] meetings assumed):

- Coordinate with the County's Public Involvement (PI) Consultant Team.
- Prepare presentations, exhibits, and maps of the project limits for stakeholder coordination meetings.
- Attend meetings with affected local agencies, County's consultants, and affected property owners.

PUBLIC SCOPING MEETING

- Attend up to three Pre-Meetings with the County, GEC, TxDOT, and the County's PI Consultant Team. The County's PI Consultant Team will take the lead on initiating the Public Scoping Meeting pre-meetings with the County, TxDOT, GEC, and the Engineer. The Engineer will not be responsible for preparing the meeting minutes, but will provide input in the development of meeting minutes.
- Prepare Exhibits. The Engineer will prepare exhibits and maps for public outreach.
 The Engineer will provide up to three different exhibits printed in multiple copies for display at the Public Meeting. The Engineer will submit these exhibits to the GEC and County's PI Consultant Team for review. Up to four rounds of revisions are anticipated.
- Attend Public Scoping Meeting. The Engineer will provide up to four experienced meeting facilitators to attend the Public Meeting.

PUBLIC HEARING

- Attend up to three Pre-Meetings with the County, GEC, TxDOT, and the County's PI Consultant Team. The County's PI Consultant Team will take the lead on initiating Public Hearing pre-meetings with the County, TxDOT, GEC, and the Engineer. The Engineer will not be responsible for preparing the meeting minutes, but will provide input in the development of meeting minutes.
- Prepare Exhibits. The Engineer will prepare exhibits and maps for public outreach.
 The Engineer will provide up to three different exhibits printed in multiple copies
 for display at the Public Hearing. The Engineer will submit these exhibits to the
 GEC and County's PI Consultant Team for review. Up to four rounds of revisions
 are anticipated.

• Attend Public Hearing. The Engineer will provide up to four experienced meeting facilitators to attend the Public Hearing.

B. ENVIRONMENTAL IMPACT STATEMENT (EIS)

• The environmental classification for this project is assumed to be an Environmental Impact Statement (EIS) as defined by TxDOT and FHWA.

STYLE GUIDE AND INTERNAL EIS COORDINATION PLAN

The Engineer will prepare one Style Guide and Internal EIS Coordination Plan that
will be used during the preparation of the EIS. The draft Style Guide and Internal
EIS Coordination Plan will be circulated to the GEC and other County Consultant
Teams for review and comment. It is anticipated this deliverable will undergo two
rounds of comment prior to finalization.

DELIVERABLES:

- Draft Style Guide and Internal DEIS Coordination Plan (revised based on up to two rounds of comments)
- Final Style Guide and Internal DEIS Coordination Plan

PURPOSE AND NEED STATEMENT

- Utilizing the Purpose and Need developed through the TxDOT Feasibility Study, the Engineer will refine the draft Purpose and Need Statement utilizing TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- The Engineer will also follow the AASHTO Practitioner's Guide: Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects.
- The Engineer will identify and describe the proposed action, transportation problem(s), or other needs. The project need(s) will be revised and refined to establish the rationale for the project. Supporting facts and/or data will be collected and analyzed to support the need for the project.
- Prepare a Purpose and Need statement for the corridor study, which will form the basis for the "no action" discussion in the "alternatives" section and assist with the identification of reasonable alternatives and the selection of the Preferred Alternative.

DELIVERABLES:

- Draft Purpose and Need statement with technical backup materials (revised based on up to six rounds of comments)
- Final Purpose and Need statement with technical backup materials

CONSTRAINTS MAPPING

• Utilizing the constraints map developed for the TxDOT Feasibility Study, the Engineer will enhance and refined data collection using an ESRI Product-based Geographic Information System (GIS) to analyze various environmental, planning, and engineering information within the EIS project limits. From this GIS data, the Engineer will prepare an updated Constraints Map.

DELIVERABLES:

- Draft Environmental Constraints Inventory Map (revised based on up to six rounds of comments)
- Final Environmental Constraints Inventory Map

PREPARATION OF NOTICE OF INTENT (NOI)

• The Engineer will prepare the preliminary draft of the NOI. The Engineer will submit the draft NOI to the GEC for review. It is anticipated the GEC will circulate the draft NOI for TxDOT District, Environmental Affairs Division, and General Council Division review. The Engineer will address comments from the GEC and TxDOT. The coordination of publication of the NOI and/or the cost of publication of the NOI in the newspaper is excluded from this scope of services.

DELIVERABLES:

- Draft NOI (revised based on up to six rounds of comments)
- Final NOI

INVITATION FOR PARTICIPATING/COOPERATING AGENCY INVOLVEMENT

• The Engineer will prepare the preliminary draft of the Invitation for Participating/Cooperating Agency Involvement letter. The Engineer will submit the draft Invitation for Participating/Cooperating Agency Involvement letter to the GEC for review. It is anticipated the GEC will circulate the draft Invitation for Participating/Cooperating Agency Involvement letter for TxDOT District, Environmental Affairs Division, and General Council Division review. The Engineer will address comments from the GEC and TxDOT. Once final, the

Engineer will mail the letters or send emails inviting entities to be participating or cooperating agencies (not later than 45 days after the publication of the NOI).

DELIVERABLES:

- Draft letters
- Final letters

COORDINATION PLAN

• The Engineer will prepare the preliminary draft Coordination Plan. The Engineer will submit the draft Coordination Plan to the GEC for review. It is anticipated the GEC will circulate the draft Coordination Plan for TxDOT District, Environmental Affairs Division, and General Council Division review. The Engineer will address comments from the GEC and TxDOT. Not later than 90 days after the publication of the NOI, the Engineer will mail letters or send emails transmitting the draft Coordination Plan and schedule to participating/cooperating agencies and solicit comments (comment deadline is 30 days).

DELIVERABLES:

- Draft Coordination Plan
- Final Coordination Plan
- Circulate Coordination Plan
- Up to three revised versions per comments received at milestone reviews

PREPARATION FOR AGENCY SCOPING MEETING

- The Engineer will be responsible for planning the agency scoping meeting and will lead the following tasks.
 - Formulate meeting plan
 - o Develop agenda, meeting materials, presentation
 - Attend pre-meeting with GEC and TxDOT
 - o Coordinate/Invite attendees/follow-up
 - o Attend and Conduct meeting
 - Prepare Draft Meeting Minutes and Materials
 - o Prepare Final Meeting Minutes and Materials

DELIVERABLES:

 The Engineer will submit the Agency Scoping Meeting materials to the GEC for review. It is anticipated the GEC will circulate the Agency Scoping Meeting materials for TxDOT District, Environmental Affairs Division, and General Council Division review. The Engineer will address comments from the GEC and TxDOT.

TECHNICAL REPORTS FOR THE EIS

- A. COMMUNITY IMPACT ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE:
- Conduct community impact investigations in accordance with current Federal and State rules, regulations, and guidelines.
- Utilize TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- Complete the TxDOT Community Impact Assessment Form Technical Report for the Recommended Alternative corridor.
 - B. ARCHEOLOGICAL RESOURCES ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE:
- Prepare a Project Initiation Letter and Texas Antiquities Permit Application based on data collection and field reconnaissance for the Recommended Alternative corridor.
- 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 of the Recommended Alternative in accordance with
 report guidelines as outlined by the Texas Historical Commissions Rules of Practice
 and Procedures.
- Utilize TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- Complete the TxDOT Archeological Background Study Report and TxDOT Archeological Pedestrian Survey Report for the Recommended Alternative corridor.
 - C. HISTORIC PROPERTIES ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE:
- Prepare a historic building survey report 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 surveys of the Recommended Alternative corridor.
- Utilize TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- Complete the TxDOT Project Coordination Request for Historical Studies Form, Historic Resources Research Design, and Reconnaissance Survey Report for the Recommended Alternative corridor.
 - D. WATER RESOURCES ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE:
- Prepare report documenting the project's effects on protected water resources based on data collection and field surveys of the Recommended Alternative corridor.
- Utilize TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- Prepare a wetland determination and delineation report identifying: specific impacts to Waters of the United States, measures to minimize the impacts, and applicable Section 404 options in accordance with current permits and conditions based on data collection and field surveys of the Recommended Alternative corridor.
- Complete the TxDOT Water Resources Technical Report for the Recommended Alternative corridor.
 - E. BIOLOGICAL RESOURCES ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE:
- Prepare report documenting the project's effects on protected biological resources based on data collection and field surveys of the Recommended Alternative corridor.
- Utilize TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- Complete the TxDOT Biological Evaluation Form Technical Report for the Recommended Alternative corridor.
 - F. GEOLOGICAL ASSESSMENT AND KARST TERRAIN SURVEY
- Geological Assessments and Karst Terrain Surveys will be conducted in accordance with TCEQ, City of Georgetown 4(d) Rule, and U.S. Fish and Wildlife guidance.

- Prepare Biological Assessment for coordination with USFWS under Section 7 of the Endangered Species Act.
- Participation with the Williamson County Regional Habitat Conservation will be obtained.

G. AIR QUALITY ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE:

- Air quality analysis will be in accordance with current Federal and State rules, regulations, and guidelines.
- Utilize TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- Complete the TxDOT Air Quality Technical Report for the Recommended Alternative corridor.
 - H. HAZARDOUS MATERIALS INITIAL SITE ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE:
- Prepare a Hazardous Materials Initial Site Assessment (ISA) based on the data collection and field survey conducted and identify potential hazardous material sites in the Recommended Alternative corridor.
- Utilize TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- Complete the TxDOT Hazardous Materials ISA Form Technical Report for the Recommended Alternative corridor.
 - I. TRAFFIC NOISE ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE
- Conduct traffic noise analysis in accordance with current Federal and State rules, regulations and guidelines for the Recommended Alternative.
- Utilize TxDOT guidance provided in the TxDOT Environmental Toolkit for this task.
- Prepare a Traffic Noise Technical Report for the Recommended Alternative corridor.

J. INDIRECT AND CUMULATIVE IMPACTS TECHNICAL REPORT

 The Engineer will prepare an Indirect and Cumulative Impacts Technical Report and all applicable investigations per TxDOT's online Environmental Toolkit. The Engineer will perform a site visit the Reasonable Alternative when ROE can be obtained.

DELIVERABLES:

The Engineer will address comments to the draft Technical Reports for up to six rounds of comments (2 rounds of GEC, 2 rounds of TxDOT Austin District, and 2 rounds of TxDOT Environmental Affairs Division/Legal Sufficiency Review). The final approved versions of the Technical Reports will be submitted to the GEC.

- Draft & Final Community Impact Assessment Form Technical Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Archeological Background Study Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Archeological Pedestrian Survey Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Project Coordination Request for Historical Studies Form (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Historic Resources Research Design (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Historic Resources Reconnaissance Survey Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Water Resources Technical Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Biological Evaluation Form Technical Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Geological Assessment and Karst Terrain Survey ((electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Air Quality Technical Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Hazardous Materials Initial Site Assessment Form Technical Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Traffic Noise Technical Report (electronic submission of up to 5 drafts and 1 final in PDF format)
- Draft & Final Indirect and Cumulative Impacts Technical Report (electronic submission of up to 5 drafts and 1 final in PDF format)

DEIS PREPARATION AND FORMAT

- The Engineer will prepare a DEIS for the project. TxDOT approved Technical Reports will be the basis of the DEIS document preparation. Exhibits to be included in report will not exceed 11" by 17," and will be in color. Text pages will be 8.5" by 11". Exhibits will be reproducible via photocopying without loss of legibility. The CEQ regulations at 40 CFR 1502.12 stipulate that the DEIS summary shall stress major conclusions, areas of controversy, and issues to be resolved.
- The DEIS will summarize background data and technical analyses to support the concise discussions of the alternatives and their impacts. The DEIS will refer to the approved Technical Reports by reference. The alternatives analysis included in the DEIS will be based on limited field investigations, desktop research, and mapping. The Engineer will prepare the DEIS and include the following topics:
 - i. Executive Summary
 - i. Purpose and Need for Action
 - ii. Alternatives
 - iii. Affected Environment & Environmental Consequences
 - iv. Indirect and Cumulative
 - v. Summary of Alternatives
 - vi. Mitigation and Permitting
 - vii. Comments and Coordination
 - viii. References
 - ix. List of Abbreviations
 - x. List of Preparers
- The Engineer will prepare the preliminary draft DEIS and will submit the draft DEIS to the GEC for review. It is anticipated the GEC will circulate the draft DEIS for TxDOT District, Environmental Affairs Division, and General Council Division review. The Engineer will address comments from the GEC and TxDOT.

DELIVERABLES

- Draft DEIS (revised based on up to six rounds of comments)
- Final DEIS

NOTICE OF AVAILABILITY AND CIRCULATION OF DEIS

• The Engineer will prepare the preliminary draft of the NOA of the DEIS and submit to the East/West Corridor Consultant Team for review. The Engineer will submit the draft NOA of the DEIS to the GEC for review. It is anticipated the GEC will circulate the draft NOA of the DEIS for TxDOT District, Environmental Affairs Division, and General Council Division review. The Engineer will address comments from the GEC and TxDOT. The distribution of the NOA to

Stakeholders and the cost of publication of the NOA in the newspaper is excluded from this scope of services.

DELIVERABLES

- Draft NOA (revised based on up to six rounds of comments)
- Final NOA

PREPARATION OF FEIS/ROD

• Per TxDOT guidance, the Engineer will prepare a combined FEIS/ROD and publish in the Texas and Federal Registers.

DELIVERABLES

- Draft NOA (revised based on up to six rounds of comments)
- Final NOA

NEPA PROJECT FILE

• The Engineer will establish, track, organize and manage the Project File, which is the written record to demonstrate NEPA compliance. The Engineer will follow TxDOT's Best Project: Project File Maintenance document dated September 2015. The Engineer anticipates maintaining the Project File in the GEC's ProjectWise account for this project. The Engineer will also copy the GEC's specific email account created for this project to maintain email records.

FUNCTION CODE 130 - RIGHT OF WAY (ROW) MAPPING

- Research and compile deed/plat records and build a working map from recorded data for tie in and crossing right-of-ways such as RM 2433, 183A, and any county roads along project corridor.
- Perform analysis of gathered data to determine right of way monumentation and make initial pass to recover right of way monumentation.
- Draft preliminary map of existing right of way and list of impacted tracts.
- Conduct field work to locate existing property corners.
- Perform boundary analysis to determine the location of all boundary lines of the proposed right of way parcel.
- Survey and stake all proposed right of way points. A 5/8" iron rod with aluminum cap stamped "TxDOT ROW" should be placed flush with the ground at all PC's, PT's, angle points and at 1000 intervals along tangent sections. A 5/8" iron rod with aluminum cap stamped "TxDOT ROW" should be placed at the intersections of the new ROW line and individual property lines. A 5/8" iron rod with aluminum cap stamped "TxDOT Control of Access" should be placed at beginning and end of all limits of Controlled Access.
- Place a fiberglass survey marker post at all monuments along the proposed ROW line and easement line. The fiberglass posts and aluminum caps will be provided by the State.
- Submit a preliminary, and upon approval, a final ROW map. On the ROW Map show existing ROW (by bearing and distance) through the entire length of the project, even in areas where no new ROW is needed. In areas where new ROW is only needed on one side, the ROW on both sides of the new facility shall be delineated and monumented. Prepare right-of-way maps using MicroStation software graphics system capable of producing graphics files that can be plotted and viewed without further modification or conversion using the State's MicroStation VB graphics system.
- Submit preliminary, and upon approval, final parcel plats and deed descriptions. The Engineer shall submit closure sheets for each right-of-way parcel, parcel sketch, and property description for each submittal required in the work authorization. Prepare parcel plats using *MicroStation* software graphics system capable of producing graphics files that can be plotted and viewed without further modification or conversion using the State's *MicroStation* VB graphics system. Prepare each property description using a computer word processing system capable of producing data files readable using Microsoft Word files that are

- compatible with State word processing software. Index by parcel number each copy of instruments of record submitted to the State.
- Where material discrepancies are found between the record and the conditions discovered, the Surveyor for the Engineer shall make a general reference to the discrepancy on the plat of survey and a specific reference to a report of survey which more specifically describes the discrepancy.
- Use surface coordinates based on the Texas State Plane Coordinate System for coordinates appearing on right-of-way maps and in property descriptions. Ensure the surface adjustment factor utilized for the ROW mapping is the same surface adjustment factor utilized in the preliminary engineering. If discrepancies are found the Engineer shall immediately notify the State project manager.

K. DELIVERABLES:

- PRELIMINARY ROW MAP AND AFFECTED PROPERTY OWNER LIST (DRAWING FILE, PDF, AND HARDCOPIES).
- FINAL ROW MAP AND AFFECTED PROPERTY OWNER LIST (DRAWING FILE, PDF, AND HARDCOPIES).
- PRELIMINARY AND FINAL PARCEL PLATS AND DEED DESCRIPTIONS

FUNCTION CODE 150 - SURVEYING

A. RIGHT OF ENTRY ([100] letters assumed)

 Prepare and mail right of entry letters per the County's standard for the project team including environmental, geotechnical, and design surveys. Send a second follow up letter to non-responsive property owners within two weeks.

B. PROJECT PRIMARY AND AERIAL CONTROL SURVEY

- Establish horizontal and vertical Primary Control setting two (2) inter-visible monument pairs at locations near both ends, middle of project and additional monuments at 1-mile spacing along remaining project study area. The survey control points (ten (10) total) will be set in locations that will likely be undisturbed by construction or State maintenance. The project control will be placed on horizontal and vertical datums [NAD83/93/NAVD88 values (Texas State Plane, Central Zone)] with a scale factor as provided by the County. Elevations will be derived from GPS observations using Geoid 2012B model. Digital levels will be run through all major control points to confirm the established elevations.
- Set aerial target or photo identify locations for aerial LiDAR mapping control in the immediate area.
- Survey a sample of ground data (truthing) in areas not requiring right of entry e.g., crossing roadways, watercourses, etc.
- Perform coordinate system translations for existing file integration and to generate a homogenous project coordinate system.

DELIVERABLES:

- DGN file of ground verification data and crossing roadway information.
- DTM and associated TIN files.
- Control Monument data in ASCII format. ASCII file of ground verification data.
- Create control data and recovery index and data sheets.
- Control Data Sheets

C. DESIGN SURVEY

 The Engineer will establish secondary horizontal and vertical control within the survey limits. The survey control points will be set in locations that will likely be undisturbed by construction or State maintenance. The secondary project control will be placed on horizontal and vertical datums [NAD83/93/NAVD88 values (Texas State Plane, Central Zone)] with a scale factor of 1.00011 or directed by the County. Elevations will be derived from GPS observations using Geoid 2012B model.

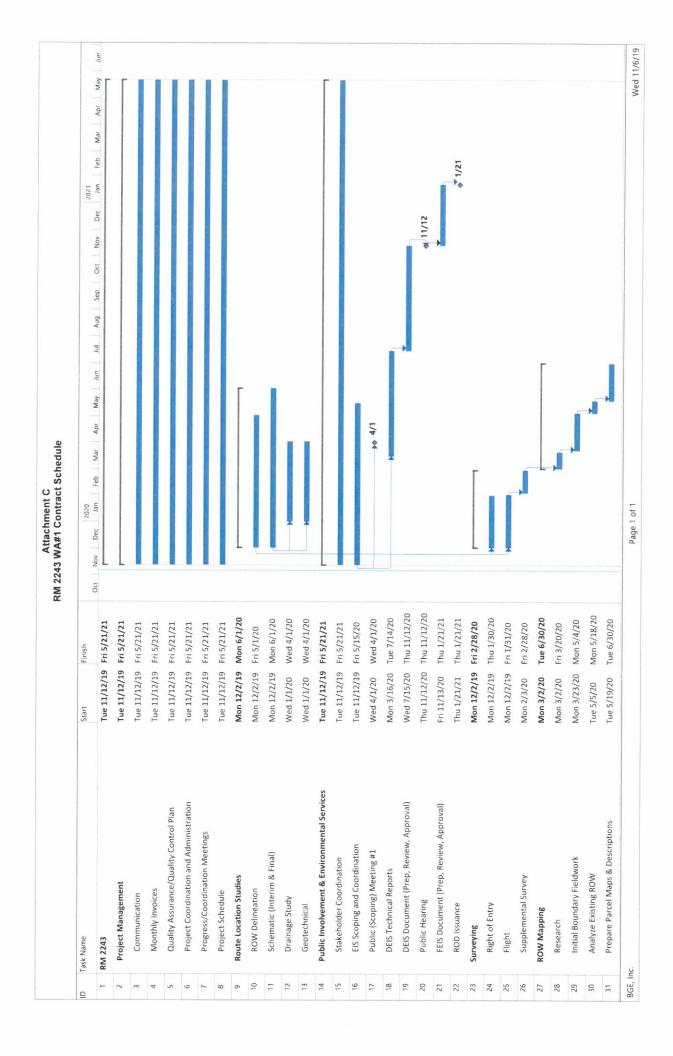
- The Engineer will supplement the aerial mapping design survey with conventional on-the-ground surveying in areas that are obscured (assume 25%) from the LiDAR sensors field of view. Exact location of trees is not included in this scope of services.
- Supplemental design survey data will be merged and appended to the aerial mapping 2D and DTM to create seamless 2D, DTM and TIN files

DELIVERABLES:

- 2D planimetrics, 3D DTM (Microstation V8)
- .Gpk and TIN file.
 - Word doc file of surveyed points list and TxDOT descriptor code list.
 - PDF file scanned field book copies.

D. AERIAL FLIGHT

- The Engineer shall provide all digital data in the format required by TxDOT.
- Photogrammetric services will include the following aspects:
- Obtain new color aerial photography
- Obtain airborne LiDAR data
- Perform aerotriangulation
- Perform 1" = 50' scale digital planimetric mapping
- Mapping extents to be 100 feet outside of the proposed right-or-way lines.
- Perform LiDAR classification to "bare earth"
- Develop edited 1' contours from "bare earth" LiDAR data
- Perform digital orthophoto rectification with a 0.25' pixel resolution
- Tiled LiDAR data files of classified points in LAS format.



Firm	Amount	Percent
BGE	\$2,588,989	65.5%
orsair	\$248,371	6.3%
materra	\$105,950	
RPS	\$471,472	
nland	\$119,831	3.0%
MT	\$51,840	1.3%
881	\$87,720	2.2%
VSB	\$69,834	1.8%
AM	\$148,072	3.7%
WCA	\$58,175	1.5%
Total	\$3	

SUMMARY BY FIRM & TASK DESCRIPTION

	Firm										
Function	BGE	Corsair	Amaterra	RPS	Inland	JMT	88	WSB	SAM	SWCA	Function Totals
ROUTE AND DESIGN STUDIES	\$735,506	\$117,132	\$0	\$49,760		\$50,296	\$86.176	\$68.290	C\$		\$1.107.159
SOCIAL, ECONOMIC AND ENV. STUDIES AND PUBLIC INVOLV.	\$903,910	So	\$93,964	\$413,052				\$0	ŞO	\$51.896	\$1.462.322
UTILITY INVESTIGATION		,						05			777777
RIGHT OF WAY DATA	\$580,000	80	\$0	\$0	80	os	\$0		\$0		5580 000
PROJECT MANAGEMENT AND ADMINISTRATION	\$190,860	\$0	\$4,198	05				\$0	80	\$6.300	\$201.358
SURVEYING	\$150,210	\$0	\$0	80	\$108,651	\$0	ŞO	\$0	\$118.548		\$377 409
ROADWAY DESIGN CONTROLS	\$0	80	\$0	\$0					\$0		08
DRAINAGE	\$0	So	\$0	05				\$0	\$00		OS US
SIGNING, PAVEMENT. MARKINGS AND SIGNALIZATION	\$0	\$0	\$0	\$0\$				\$0	\$0		0, 0,
MISCELLANEOUS (ROADWAY)	\$0	\$0	\$0	0\$				80	\$0		05
BRIDGE DESIGN	\$0	So	\$0	\$0	1			05	\$0		05
CONSTRUCTION PHASE SERVICES	\$0	So	\$0	80				OS	05		05
OTHER DIRECT EXPENSES	\$28,503	\$48,920	\$7,788	\$8,660	\$11,180	\$1,544	\$1.544	\$1.544	\$29.524	\$479	\$139 686
UNIT COST		\$82,319	\$0		80	ŞO	\$0	Sp	05		587 319
A	TOTAL	4240 224	Asor oro		Acces ones				-		and and

PROJECT NAME: RM 2243 TYPE OF WORK: COUNTY: WILLIAMSON PRIME PROVIDER: BGE

S 24 1 1 1 1 1 1 1 1 1	TASK DESCRIPTION	PRINCIPAL	SENIOR PROJECT MANAGER	QC MANAGER	SENIOR	PROJECT ENGINEER	GRADUATE	SENIOR DESIGN TECHNICIAN	DESIGN TECHNICIAN	CADD	CADD	CLERICAL	BOCUMENTS	TOTAL LABOR HRS.
The control of the co	ROUTE AND DESIGN STUDIES										STATE OF STATE OF STATE OF	The second second second	(PER PARCEL)	& COS18
1														
1	Dala Collection													
1	Record Research	8	24				24	24						0 00
1	Field Investigation				20	20	20							000
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Property Ownership Information	80			24		24	36						00
10 10 10 10 10 10 10 10	Traffic Evaluations and Projections													76
10 12 12 13 14 15 15 15 15 15 15 15	Review Previous Traffic Studies	10	16		16									0 4
1	Design Criteria	10	12		16	20								42
1	Preliminary Cost Estimates	24	16		24	36	48	36						28
INSTANCY CHICAGO) 24 46 46 5 56 64 72 140 164 164 164 164 164 164 164 164 164 164	Preliminary ROW Requirements	24	32		48		56	999						216
1 1 24 25 25 26 64 72 140 150 140 150 140 150 140 150 140 150 140 150 140 150 150 140 150 150 140 15														0
Sand Vericial) 24 45 45 45 45 45 45 45	Schematic													0
1879 1870	Revisions to Schematic													0
18 18 18 18 18 18 18 18	Roadway Alignments (Horizontal and Vertical)	24	32	36	9	64	72	140						0
16 20 24 24 24 24 24 24 24	3D Model	24	48	40	120	140	156	164						4.20
15 16 20 24 24 24 24 24 24 24														0
16 20 24 24 24 24 24 24 24	l'anic Evaluations and Projections													0
CP	Analyze provided results	16	20		24	24								84
Fig. 16 30 36 36 28 32 48 60 60 60 60 60 60 60 6	Schematic Roll Diots													0
CF)	Preliminary - Inferim Roll Plots	40	000	36	000	00		400						0
CF	Preliminary - Ultimate Roll Plots	000	300	20	07	32	48	09						250
16 32 32 32 36 56 72 96 96 96 96 96 96 96 9		0.7	000	40	97	32	48	09						264
16 32 32 32 36 56 72 96 96 96 96 96 96 96 9	Conceptual Traffic Control Plan (TCP)													0
October Control of the control o	Preliminary - Interim TCP Roll Plots	16	32	32	38	5,6	7.5	80						0
Ossings, 17 cross drainage structures) 8 120 32 24 36 48 40 40	Preliminary - Ultimate TCP Roll Plots	00	24	32	48	64	28	90				4		344
Second Heading Structures Second Heading Heading Structures Second Heading Heading Structures Second Heading H								0				4		360
ossings, 17 cross drainage structures) 8 20 32 24 36 48 40														0
Sistings. 17 cross drainage structures) 8 16 16 16 16 40 40 60 60 60 60 60 60 60 60 60 60 60 60 60														0
Second Continues Second Second Continues Second Second Second Continues Second	Drainage Study													0
Second S	Develop H&H Models (18 major crossings, 17 cross drainage structures)	8	20	32	24	36	48	40						208
8 112 36 20 30 24 48 36 24 48 36 24 48 36 24 48 36 24 48 36 24 48 36 24 48 36 24 48 36 24 48 36 48<	FEMA and Local Floodplain Administrator Coordination	89	16		16	16								56
S 16 24 48 36 24 12 27 20 12 20 12 20 12 20 12 20 20	Impact and Mitigation Analysis	00	12		36	20	30							108
8 12 24 12 20 20 12 30 </td <td>Water Quality Analysis</td> <td>80</td> <td>16</td> <td></td> <td>24</td> <td>48</td> <td>36</td> <td>24</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>166</td>	Water Quality Analysis	80	16		24	48	36	24						166
248 398 272 604 628 786 844 0 0 6 6 \$290.0 \$225.00 \$270.00 \$122.60.0 \$122.60.0 \$132.00.0 \$132.00.0 \$100.0 \$60.00 \$60.00 \$14.92.00 \$93.52.00 \$122.86.00 \$172.46.00 \$172.46.00 \$50.00 \$60.00 \$60.00 \$60.00 \$1.86.00 \$1.77.70 \$18.77.70 \$18.77.70 \$18.77.70 \$70.00 \$60.00 \$60.00 \$60.00 \$60.00	Drainage Report	8	12	24	12	20	20	12						108
248 398 272 604 628 786 844 0 0 0 8 0 \$290.00 \$235.00 \$270.00 \$195.00 \$130.00 \$164.00 \$110.00 \$80.00 \$85.00 \$5.800.00 \$17,122.00 \$33,50.00 \$122,480.00 \$122,480.00 \$122,480.00 \$100.00 \$30.00 \$80.00														200
248 398 272 604 628 786 844 0 0 0 0 8 0 \$290.00 \$235.00 \$270.00 \$2270.00 \$195.00 \$130.00 \$110.00 \$100.00 \$80.00														0
248 272 604 628 786 844 0 0 6 6 0 <	S PLOT 8118 381 IOH													0
\$259.00 \$253.00 \$710.00 \$122.00.00 \$122.00.00 \$10.00 \$10.00 \$0.00 \$0.00 \$60.00 \$60.00 \$56.00 \$56.00 \$56.00 \$0.00 \$	HOLIDIY CONTRACT BATE	248	398	272	604		786	844	0	0	0	80	0	3788
9.1722-20.0 39.172-20.0 39.174-49.10 31.27.29.10 51.27.29.20 50.00	TOTAL LABOR COSTS	\$280.00	\$235.00	\$2/0.00	\$220.00	_	\$130.00	\$164.00	\$120.00	\$110.00	\$80.00	\$85.00	\$5,800.00	
The state of the s	% DISTRIBUTION OF STAFFING	9 78%	200,000,00	0.0,440,00	132,000,00		\$102.180.00	\$138,416.00	\$0.00	\$0.00	\$0.00	\$680.00	\$0.00	\$735,506.00

SUBTOTAL \$735,506.00

TASK DESCRIPTION	PRINCIPAL	PROJECT	MANAGER	SENIOR	PROJECT	GRADUATE	SENIOR DESIGN TECHNICIAN	DESIGN	CADD	CADD	CLERICAL	DOCUMENTS	LABOR HRS.
SOCIAL, ECONOMIC AND ENV. STUDIES AND PUBLIC INVOLV.							NICIONAL	San	COLLICON		STATE OF THE PARTY	(PER PARCEL)	& COS 18
STAKEHOLDER COORDINATION	80	80		80		80					9		460
PUBLIC SCOPING MEETING	32	32		32		32					80		336
PUBLIC HEARING	32	32		32		32					80		336
STYLE GUIDE AND INTERNAL EIS COORDINATION PLAN											a		0000
PURPOSE AND NEED STATEMENT											0 4		120
CONSTRAINTS MAPPING											6		036
PREPARATION OF NOTICE OF INTENT (NO!)											100		007
INVITATION FOR PARTICIPATING/COOPERATING AGENCY INVOLVEMENT											4		108
COORDINATION PLAN													152
PREPARATION FOR AGENCY SCOPING MEETING											24		360
TECHNICAL REPORTS FOR THE EIS:													0
COMMUNITY IMPACT ASSESSMENT											16		356
ARCH RESOURCES ASSESSMENT (COORDINATION WITH AMA)													000
HISTORIC PROPERTIES ASSESSMENT (COORDINATION WITH AMA)											2		900
WATER RESOURCES ASSESSMENT											2		334
BIOLOGICAL RESOURCES ASSESSMENT											2		342
GEOLOGICAL ASSESSMENT & BA (COORIDINATION WITH SWCA)											2		805
AIR QUALITY ASSESSMENT (COORIDNATION WITH RPS)											2		20
HAZMAT INITIAL SITE ASSESSMENT (COORIDNATION WITH RPS)											2		50
PAFFIC NOISE ASSESSMENT (COORDINATION WITH RPS)											2		50
INDIRECT AND CUMULATIVE IMPACTS											16		608
DEIS PREPARATION											32		912
NOTICE OF AVAILABILITY AND CIRCULATION OF DEIS											2		58
PREPARATION OF FEIS/ROD											24		296
NEPA PROJECT FILE											64		208
													0
													0
HOURS SUB-TOTALS	144	144	0	144	0	144	0	c	0	0	308	c	0 0
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME	\$290.00	\$235.00	\$270.00	\$220.00	\$195.00	\$130.00	\$164.00	\$120.00	\$110.00	\$80.00	\$85.00	\$5,800,00	2010
OTAL LABOR COSTS	\$41,760.00	\$33,840.00	\$0.00	\$31,680.00	\$0.00	\$18,720.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25,330.00	\$0.00	\$903.910.00
% DISTRIBUTION OF STAFFING	4.62%	3.74%	%00.0	3.50%	%00.0	2.07%	%00.0	%00.0	0.00%	%00.0	2.80%	%00.0	100.00%

	PRINCIPAL	SENIOR	ac	SENIOR	PROJECT	GRADUATE	SENIOR	DESIGN	SENIOR	CADD	CLERICAL	WOW	TOTAL
TASK DESCRIPTION	DIRECTOR	PROJECT	MANAGER	ENGINEER	ENGINEER	ENGINEER	DESIGN	TECHNICIAN	CADD	TECHNICIAN		DOCUMENTS (PER PARCE)	LABOR HRS.
RIGHT OF WAY MAPPING												1	
													0
ROW MAPPINGS & DOCUMENTS												100	100
													0
													0
													0
HOURS SUB-101 ALS	0	0	0	0	0	0	0	0	0	0	0	100	100
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME	\$290.00	\$235.00	\$270.00	\$220.00	\$195.00	\$125.00	\$164.00	\$120.00	\$110.00	\$80.00	\$85.00	\$5.800.00	
TOTAL LABOR COSTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$580,000.00	\$580.000.00
% DISTRIBUTION OF STAFFING	%00.0	%00.0	%00.0	%00.0	%00.0	%00.0	%00.0	%00.0	%00 0	%000	%000	78 86%	79000

SUBTOTAL \$580,000.00

PROJECT MANAGEMENT AND ADMINISTRATION Monthly Progress Reports, Invoices, and Billings Quality Assurance and Quality Control (QA/QC), Plan Develop GA/QC Plan Perform QA/QC Project Coordination and Administration		MANAGER	MANAGER	ENGINEER	ENGINEER	ENGINEER	DESIGN	TECHNICIAN	CADD	TECHNICIAN	CLEMICAL	DOCUMENTS	TOTAL LABOR HRS.
Inthly Progress Reports, Invoices, and Billings afity Assurance and Quality Control (QA/QC) Plan evelop QA/QC Plan erform QA/QC plan plact Coordination and Administration		MANAGEN					IECHNICIAN		TECHNICIAN			(PER PARCEL)	& COSTS
Infinity Progress Reports, Invoices, and Billings The and Quality Assurance and Quality Control (QA/QC) Plan The and QA/QC Plan And QA/QC And And Administration													
alify Assurance and Quality Control (QA/QC) Plan evelop QA/QC Plan QA/QC Plan ACT Plan ACT Plan Plan Plan Plan Plan Plan Plan Plan	32	32		16									
evelop QAQC Plan erform QA/QC Plan erform QA/QC			24								40		120
erform QA/QC ject Coordination and Administration	16	20	80	16									24
ject Coordination and Administration	16	20		PC.									09
	12	22		200	40								09
Progress/Coordination Meetings (with County)	000	36		48	747								124
Progress/Coordination Meetings (internal)	10	800		0 4	040						20		216
Project Schedule	12	200		200	48						20		182
		07		07	97						4		92
HOURS SUB-TOTALS	106	174	32	212	166	c	0	c	c				0
HOURLY CONTRACT RATE	\$290.00	\$235.00	\$270.00	\$220.00	\$105.00	6130 00	940400	00000		0	84	0	878
OTAL LABOR COSTS	\$30,740.00	\$40,890.00	\$8.640.00	\$46 640.00	\$32.370.00	\$0.00	\$104.00	3120.00	\$110.00	\$80.00	\$85.00	\$5,800.00	
% DISTRIBUTION OF STAFFING	16.11%	21.42%	4.53%	24 44%	16.96%	%000	00.00	30.00	90.00	80.00	57,140.00	\$0.00	\$190,860.00
SUBTOTAL	\$190,860.00												00.00.00
	PRINCIPAL	SENIOR	ac	SENIOR	PROJECT	GRADUATE	SCINAS	NOISE	QC NEW	9940	140101		
TASK DESCRIPTION	DIRECTOR	PROJECT	MANAGER	ENGINEER	ENGINEER	ENGINEER	DESIGN	TECHNICIAN	CADD	TECHNICIAN	CLERICAL	DOCUMENTS (PER PARCEL)	LABOR HRS.
POE Coordination							The state of the state of						2
Coordination (Coordination (Co	16	20			24						80		160
premerial oursey (25%)	48	24									000		701
Create Final D IM and Topo	40										07		230
													00
HOURS SUB-TOTALS	104	44	0	0	24	0	0	0	0	-	00		0
HOURLY CONTRACT RATE	\$290.00	\$235.00	\$270.00	\$220.00	\$195.00	\$130.00	\$164.00	\$120.00	\$110.00	\$80.00	\$85.00	00 000	888
TOTAL LABOR COSTS	\$30,160.00	\$10,340.00	\$0.00	\$0.00	\$4,680.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7 480 00	\$2,000,00	6450 040 00
	20.08%	6.88%	%00.0	%00'0	3.12%	%00.0	%00.0	%00.0	%00.0	%00.0	4.98%	0.00%	100,00%

	044		
Postage- CURRENI POSTAL RATE	120	\$0.000	\$0.00
Foam Board Exhibit (36x48)	20	\$50.00	\$1,000.00
Lodging/Hotel (Taxes / fees not included)	9	145.00	\$870.00
Lodging/Hotel - Taxes and fees	9	40.00	\$240.00
Meals (Excluding alcohol & tips)	9	26.00	\$336.00
Mileage	2000	0.58	\$1,160.00
Rental Car (Includes taxes and fees; Insurance costs will not be reimbursed)	*	100 00	9
Toll Charges	-	5 00	\$100.00
Air Travel	-	350.00	\$350.00
Oversize, special handling or extra baggage airline fees		20.00	\$0.00
Parking		30.00	\$0.00
Rental Car Fuel	-	4.00	\$4.00
Taxi/Cab Fare		30.00	80.00
Materials and Shipping		35.00	20.00
Standard Postage	8	0.55	\$1.65
Overnight Mail - letter size	en	25.50	\$76.50
Overnight Mail - oversized box	6	20 00	\$150.00
Courier Services	3	50 00	\$150.00
Certified Letter Return Receipt		6.85	80.00
Photocopies B/W (8 1/2" X 11")	1000	0.15	6150.00
Photocopies RAV (11" X 17")	009	35.0	940000
Photocopies Color (8 1/2" X 11")	2000	0.25	\$125.00
Photocopies Color (11" X 17")	1000	1 26 4	42,500
Plots (BAN on Bond)	2001	22.0	\$1,250.00
Plots (Color on Boad)		2 5	30.00
Plots (Color on Diotographic Dages)		000	90.00
Color on Filotographic rapery		4.00	\$0.00
Color Crapmics on Foam Board Descentation Boards up to 48" V 50" Color Mounted	ų	18.00	\$0.00
Outside Drinting Deports (Joshidos Inhor and Supplied	0	200.00	\$1,200.00
distorted Agric Images (Between Blooding Mage)	0	20.00	20.00
Acid Dedemone (4" = 500 code)	7	123.00	\$250.00
Acida Principalis (1 = 500 Scale)		125.00	\$0.00
IX Parks & Writing Data Request Fees		85.00	\$0.00
FEMA FIS Backup Data Request	-	400.00	\$400.00
EMM Maps		25.00	\$25.00
Pursion (Premark TX Arrhandaries) Consider (Premark		750.00	\$750.00
Culated (Diawe) & 15 Alchaeological Research		00 030 0	00 04
Mane and Man Becords	-	400.00	30.00
Environmental Database search		00.000	30.00
Environmental Field Supplies (Jathes stakes flagging cores paint atc.)		00.008	\$900.00
TARL Curation Fee	-	500.00	\$0.00
Property Record Fees (Courthouse and Courthouse Direct Record Fees)	100	00 09	00 000 38
Research Data Report	200	\$4 000 00	\$2,000.00
GPS Daily Rental	10	65000	\$2,000.00 \$500.00
Certified Deed Copies	100	\$5.00	\$500.00
GPS RTK (rates applied to actual time GPS units are in use)		\$30.00	\$0.00
GPS Static (rates applied to actual time GPS units are in use)		\$30.00	\$0.00
Fathometer		\$100.00	\$0.00
Type II ROW Monument - Excavated/Drilled, rocks, rocky soil. 2-4 inch depth	20	\$240.00	\$4,800.00
ype II ROW Monument - Poured 2-3 Feet (includes One Call, crew time,	20	\$290.00	\$5,800.00
- A P C P C P C P C P C P C P C P C P C P		\$0.00	\$0.00
OBJUINE DIRECT EAPENSES			\$28 503 15

TOTAL \$2,588,989.15

ATTACHMENT E - FEE SCHEDULE METHOD OF PAYMENT: SPECIFIED RATE AND UNIT COST

CSJ: PROJECT NAME: RM 2243 TYPE OF WORK: COUNTY: SUBPROVIDER: CORSAIR

EER ADMIN/ TOTAL LABOR HR	0.000			12	190	85	400	2001	190	15 15					0 \$1.084.20 \$117.131.70	0.93%	0/0000	
SENIOR ENGINEER TECH													+		\$0.00	%00.0		
ENGINEER EN			a	0 0	081	20	150	Ca	200			470	\$40E 27	\$103.37	\$50,366.86	43.00%		
DESIGN					-	12	120	45	2			180	5143 01	10.0410	\$25,741.80	21.98%		
PROJECT					Ç	OI.	70	35	3			115	\$165 50	20.00	\$19,042.85	16.26%		
SENIOR			4		4	0	40	20				69	\$180.66	640 405 54	912,403,34	10.64%		
PROJECT MANAGER					v	2	70	10				35	\$240.87	SO 420 AE	\$6,430.43	7.20%		£117 131 70
SR. PROJECT MANAGER				12		C	57	15				52	\$271.00	\$14 000 00	00.300,110	12.03%		
PRINCIPAL												0	\$271.00	80.00	00:00	0.00%		
TASK DESCRIPTION	ROUTE AND DESIGN STLIDIES		oring Layout and Staking	ield Services/Logging During DrIling	sample Analysis and Lab Assignments	Preliminary Payement and Bridge Report		inal Pavement and bridge Report	nvoicing & Clerical		CONTRACT COLOR	HOURS SUB-IOIALS	OURLY CONTRACT RATE	OTAL LABOR COSTS	DISTRIBILITION OF STAFFING			SUBTOTAL

OTHER DIRECT EXPENSES	OTY	RATE	COST
Lodging/Hotel - Taxes and Fees (per day/person)	PE PE	\$30.00	64 020 00
Conditional Layers and foot and included foot design		900.00	31,020,00
Logority rotel- (axes and rees not included (per day/person)	34	\$96.00	\$3,264.00
Meals (per day/person)	34	\$56.00	\$1 904 00
Mileage	AOO	00000	000000
Rental Car Eugl - (nor day)		\$0.00	3232.00
iverial call act (per day)		20 00	00 08
AASHTO Accrediation Soil Laboratory (per each)		80.00	00 00
CCRI Accrediation (ner each)		0000	30.00
		\$0.00	80.00
Traffic Control Services, Arrow Boards, Attenuator trucks- Small Project			
(includes labor, equipment and fuel (per day)		\$0.00	0000
Traffic Control Services, Arrow Boards, Attenuator trucks- Medium Project			00.00
(includes labor, equipment and fuel (per day)	17	\$2,500.00	642 500 00
SUBTOTAL DIRECT EXPENSES			342,300.00

\$48,920.00

SUBTOTAL

SUR UNIT COST	YTO	TINO	RATE	COST	_
Calcium Carbonate Content of Soils-ASTM D4373- (per each)		FACH	0000	0000	
California Bearing Ratio (Single Sample without MD Curve)- ASTM D1883			30.00	30.00	
(pereach)	2	FACH	\$350.00	\$700.00	
Casegrande Type Piezometers - (per each)		I O V II	0000	00.00	_
Casagrande Type Piezometers Installation (per each)			30.00	90.00	
		EACH	80.00	20.00	
Concrete AC Fatch (pet patch)	24	PATCH	\$25.00	\$600,00	
One Dimensional Swell - Method C- ASTM D4546 (per each)		PER EACH	80.00	80.00	_
Soil Boring/Rock Coring without TCP (<60 ft) (per LF)	80	DER IF	630.00	42 400 00	(
Soil Boring/Rock Coring with TCD (480 #) Tay 190 E (1901 E)		LIVE	330.00	\$2,400.00	7 (@ 10. Borir
Constitution County with the County Text 122-E. (per LF)	096	PER LF	\$35.50	\$34,080.00	2 @ 80'
Soil Boring/Rock Coring with ICP (>50 ft)- lex-132-E (per LF)	160	PER LF	\$40.50	\$6.480.00)
Splitting Tensile of Intact Rock Care - ASTM D3967 (per each)		PER FACH	80.00	\$0.00	_
Stand by of Crew (per hour)		0.00	00.00	30.00	_
Standard Guide for Comparison of Field Methods for Determining Hydrautic		אטטר אחר	\$0.00	20.00	_
Conductivity in Vadose Zone- ASTM D5126 (per each)		200	\$0.00	6	
Standard Penetration Test (SPT) - ASTM 04588 (nor each)		באבאבר	200000000	20.00	
Chandrad Dender Took ACTM DEDO (Per Back)		PER EACH	\$0.00	\$0.00	_
Ocalidate Floring Test - ASTM DOSG (per each)	2	PER EACH	\$250.00	\$500.00	_
Unconfined Compressive Strength (Soil)- ASTM D2166 (per each)	45	PER EACH	885.00	\$2 925 DD	_

ATTACHMENT E - FEE SCHEDULE METHOD OF PAYMENT: SPECIFIED RATE AND UNIT COST

CSJ: PROJECT NAME: RM 2243 TYPE OF WORK: COUNTY: SUBPROVIDER: CORSAIR

\$2,574.00	\$3,230.00	\$3,230,00	\$5 525 OO	00.040.00	\$4675.00	000	\$0.00	\$12 000 00	80.00	80.00		\$1 400 00	\$0.00	00.00	00.00	\$0.00	\$0.00	00 08		\$0.00				000000	32,000.00	\$82,319.00
\$9.00	\$38.00	\$38.00	\$65,00	00.00	\$55.00		\$0.00	810.00	80.00	80.00		\$50.00	\$0.00	0000	00.00	\$0.00	\$0.00	\$0.00		\$0.00			\$5.00			
PER EACH	PER EACH	PER EACH	PER FACH		PER FACH		PER EACH	PERIF	PERIF	PER FACH		PER EACH	PER EACH	DED DAV	VAC 070	דבת השד	PER NIGHT	PER MII		PER EACH	1	INF OVER	100 MILES	FROM OFFICE	1 0 0	
286	85	85	5:80		8.5			1200				28												900	200	
					225.7.2																					
als - Tex-103-E (per each)	E (per each)	35-E (per each)	per each)	Finer that the 75 micrometer (No.		Moisture-Density Relationship of		Chips (per LF)		ach)	le and Sulfate Content in Soils Tex-620-J (per	=		lone) (per day)	d to FWD) (per day)	(6-1-1)		miles from office to site) (per mile)	00 miles from office to site) (per					over 100 miles from office to site), per mile		
Determining Moisture Content in Soil Materials - Lex-103-E (per each)	Determining Liquid Limits of Soild- Tex-104-E (per each	Determining Plastic Limits of Soils - Tex - 105-E (per each)	Particle Size Analysis of Soils - Tex-110-E (per each)	Determining the Amount of Material in Soils Finer that the 75 micrometer (No.	200) Sieve- Tex-111-E (per each)	Laboratory Compaction Characteristics and Moisture-Density Relationship of	Base Materials - Tex-1130E (per each)	Bentonite Grouting of Boreholes - Bentonite Chips (per LF)	Backfill Borings (per LF)	ATV-mounted Drilling Rig Surcharge (per each)	Determine Chloride and Sulfate and Sulfate	each)	Night Drilling Surchage (per each)	Ground Penetrating Radar Testing (stand-alone) (per day)	Ground Penetrating Radar Testing (attached to FWD) (per day)	inht Tower (for pight drilling) (per pight)	and I ower (not might animing) (per might)	Mobilization of Traffic Control (trips over 100 miles from office to site) (per mile)	Mobilization of Drilling Rig (Trip Less than 100 miles from office to site) (per	each)				Mobilization of Drilling Rig (Trip over 100 mile		DELOIAL SUR UNIT COST

\$248,370.70 TOTAL

SUBTOTAL

\$82,319.00

PROJECT NAME RM 2243 COUNTY WILLIAMSON PRIME PROVIDER AMATERRA

SOCIAL ECONOMIC AND ENV. STUDIES AND PUBLIC INVOILY. PISSOCIAL ECONOMIC AND ENV. STUDIES AND PUBLIC INVOILY. 2 1 6 6 6 7 7 8 7 8 9 9 8 8 9 8 8 9 8 8 9 9 8 8 9 9 8 9 8 9	ARCHEOLOGIST ARCHEOLOGIST III	ARCHEOLOGIST I/II	SENIOR HISTORIAN A	SENIOR HISTORIAN II ARCHITECTURAL	HISTORIAN II	ADMIN/ CLERICAL	SENIOR	TOTAL LABOR HRS.
2 1 2 1 2 1 4 4 4 4 4 4 20 13 36 20 13 36 20 5145.00 \$151.00 \$5.020.00 \$416.00 \$16.704.00				HISTORIAN			OPERATOR	& COSTS
2 1 4 4 10 10 10 10 10								
1				2	10		9	22
10 10 10 10 10 10 10 10			2	24	8		0	30
10			2	0,	0.0			000
des 2 1 4 10 10 4 4 4 4 92 92 4 4 4 8 72 72 20 13 36 174 174 \$5,520,00 \$1,885,00 \$4,716,00 \$16,74,00			7	2	01		2	27
2 1 4 10 10 4 4 4 4 8 72 20 13 36 174 72 20 13 36 174 886.00 55.020.00 53.185.00 541.100 586.00 586.00 55.020.00 55.020.00 54.745.00 516.704.00 56.704.00			8	120	120	12	16	284
4 1 24 92 4 4 4 8 72 20 13 36 174 \$250.00 \$131.00 \$174 \$5.020.00 \$185.00 \$4776.00 \$16704							9	22
4 4 4 6 72 20 13 36 474 \$251.00 \$131.00 \$60.00 \$5.020.00 \$1,885.00 \$474.600 \$5.020.00 \$4,745.00 \$16704.00	84	180						62
20 13 36 174 174 174 174 174 174 174 174 174 174		201					4	369
20 13 36 174 \$251.00 \$145.00 \$131.00 \$86.00 \$5.020.00 \$1,885.00 \$4,716.00 \$16.704.00	32	80				12	00	148
20 13 36 174 174 174 174 174 174 174 174 174 174								2
\$251.00 \$145.00 \$131.00 \$86.00 \$5.020.00 \$1,885.00 \$4,716.00 \$16.704.00		0.00	13	450	4.60			0
\$5,020.00 \$1,885.00 \$4,716.00 \$16,704.00		00 906	200	130	148	24	44	912
\$3,020.00 \$4,715.00 \$16,704.00		200.00	\$143.00	\$119.00	289.00	\$86.00	\$109.00	
		\$14,280.00	\$1.859.00	\$18,564.00	\$13 172 00	\$2 064 00	\$4 706 nn	602 064 00
5.34% 2.01% 5.02% 17.78%		15.20%	1.98%	19.76%	14.02%	2 20%	5, 10%	1000

SUBTOTAL \$93,964,00

TASK DESCRIPTION	PROJECT	QUALITY	SENIOR ARCHEOLOGIST PRINCIPAL INVESTIGATOR	ARCHEOLOGIST IV	ARCHEOLOGIST III	ARCHEOLOGIST I/II	SENIOR	SENIOR		ADMIN/ CLERICAL	SENIOR
PROJECT MANAGEMENT AND ADMINISTRATION		Statement of the statem						HISTORIAN			OPERATOR
Project Invoicing and Progress Reports	6	18									
		2								16	
HOURS SUB-TOTALS		40									
	7	01	0	0	0	0	0	0		40	
HOURLY CONTRACT RATE	\$251.00	\$145.00	\$131.00	606.00	\$04.00	400,000	00 00 00			91	0
TOTAL ABOR CORTS	00 0016	2000000		20.000	334.00	265.00	\$143.00	\$119.00	\$89.00	\$86.00	\$0.00
	\$502.00	\$2,320.00	\$0.00	\$0.00	\$0.00	\$0.00	80.00	\$0.00		04 040 00	0000
% DISTRIBUTION OF STAFFING	11.96%	55.26%	70 UU U	0.000	0000	0.000	00:00	20.00		\$1,376,00	\$0.00
		0001	8,000	0.00.0	0.00%	0.000	701111	70000		1000	N A A A

TOTAL LABOR HRS. & COSTS

\$4,198.00

SUBTOTAL \$7,788.00 TOTAL \$105,950.00

PROJECT NAME: RM 2243 TYPE OF WORK: COUNTY SUB-PROVIDER: RPS

TASK DESCRIPTION	DIRECTOR	DIRECTOR	MANAGER	PROJECT	PROJECT SR. DESIGNER PROJECT MANAGER ENGINEER	PROJECT	ENVIRONMENTAL DEPT MANAGER	SR. ENVIRONMENTAL PLANNER	SCIENTIST	ENVIRONMENTAL PLANNER I	ENVIORNMENTAL PLANNER II	PROJECT	PROJECT		ADMIN. RASSISTANT
NOUIE AND DESIGN STODIES				Contraction of	STATE OF THE PERSON NAMED IN									ı	
Monthly Invoices and Progress Reports			32												
Coordination Meetings		24	24											-	32
Design Support		32	32	24	24	24									
															7
HOURS SUB-TOTALS	0	95	80 83	24	24	24	0	0	0	0	0			00	7
HOURLY CONTRACT RATE	\$300.00	\$280.00	\$230.00	\$180.00	6150 00	4140 00	OU PECS	8287.00	00 101 0	00000			3	35	
TOTAL LABOR COSTS	\$0.00	\$15,680.00	\$20,240.00	\$4,320.00	\$3,600,00	\$3 360.00	\$0.00	\$0.00	8153.00	\$105.00	\$117.00	\$100.00	\$90.00	\$80.00	
% DISTRIBUTION OF STAFFING	%00.0	31.51%	40.68%	8.58%	723%	6.75%	%00.0	5,00.0	0.00%	2000	\$0.00	20.00	\$0.00	\$2,560.00	
SUBTOTAL	SUBTOTAL \$49,760.00														1
TASK DESCRIPTION	DIRECTOR	PROJECT	SR. PROJECT MANAGER	PROJECT	SR. PROJECT PROJECT SR. DESIGNER PROJECT MANAGER MANAGER ENGINEER	~	ENVIRONMENTAL DEPT MANAGER	SR. ENVIRONMENTAL PLANNER	SCIENTIST SCIENTIST	ENVIRONMENTAL PLANNER I	ENVIORNMENTAL PLANNER II	PROJECT	PROJECT	ADMIN.	TOTAL
SOCIAL, ECONDMIC AND ENV. STUDIES AND PUBLIC INVOLV.															1
BUIDING COMMING ASSETTING PATTERNAMENT COMMING		1						The company of the state of		Spring and the second second	THE PERSON NAMED IN COLUMN	The second second second			
CONTRACTION OF STREET AND ACCOUNTS		,					12	12							
PUBLIC HEARING (AT LENDANCE UNLY)		4					12	12							ı
AIR GUALLIT ASSESSMENT FOR THE RECOMMENDED ACTERNATIVE							80			216	864				
HAZARDOUS MATERIALS IS A FOR THE RECOMMENDED ALTERNATIVE							24		88	140	888				ı
TRAFFIC NOISE ASSESSMENT FOR THE RECOMMENDED ALTERNATIVE							80		1000						ı
σλίας							106								1
		The second second													1
HOURS SUB-TOTALS	0	8	0	0	0	0	314	24	1088	10.6	650				2
HOURLY CONTRACT RATE	\$300.00	\$280.00	\$230.00	\$180.00	\$ 150.00	\$ 140 00	\$284 DO	4257 AA	645200	2000	200		0	0	
TOTAL LABOR COSTS	\$0.00	\$2.240.00	\$0.00	\$0.00	80.00	80.00	\$86 176 OO	200000	20,000	3103.00	\$117.90	\$100.00	\$90.00	\$60.00	
A DISTRIBUTION OF STAFFING	%,0000	4.50%	0.00%	75,000	N ONS.	0.000	170 9 187	30,400,00	\$ 100,404,00	337,380,00	\$111,384,00	\$0.00	\$0.00	\$0.00	U.
				2000		0.000	212.511	12.00%	334,3376	75.12%	223.84%	0.00%	%900	2500.0	ATO NOW

OTHER DIRECT EXPENSES	OT?	STATE OF THE STATE OF THE PARTY	200	8.000
Mileage (60 miles round trip)	2520	\$0.58	RAIE	-333
Meals (Overnight Stav Required) per day	26	\$56.00	20,380	\$1,461,60
Lordeinaffolds Tayon and Feat	30	00.000	\$50.00	\$1,300.00
Lodgens March March State And	02	340.00	\$18.00	\$468.00
Condition to the Condes the Included	97	\$145.00	\$120.00	\$3 120 00
Postage		\$0.55	50.65	80.00
Overnight Mail - Letter Size ea	2	\$15.00	00000	00.00
Flipbook Binding & Tabbing		\$30.00	00.016	\$30,00
Photocopies BAV (8 1/2" X 11")		50.13	330,00	20.00
Photocopies BAM (11" X 17")		30.08	\$0.12	\$0.00
Photocopie Coles (8 1/2" V 15")		20.00	\$0.25	\$0.00
Displacement of the Asia		30.73	\$0.75	\$0.00
Lindbooks Color (11 A 17)		\$1.50	6150	00.03
Plots (B/W on Bond) per sq fout		\$0.80	00:10	90.00
Plots (Color on Bond) per sa foot		\$175	20.80	\$0.00
Plats (Color on Photographic Paper) per so foot		64.00	\$1.75	\$0.00
Noise Meter Rontal pac	-	880000	\$4.00	\$0.00
Hazardous Materials Database Search ea		00.0000	\$600.00	\$800.00
Any office manufactures continued and and another and		31.400.00	\$1,480.00	\$1,480.00
			\$500.00	\$0.00
SUBTOTAL DIRECT EXPENSES				
				58 E59 ED

SUBTOTAL \$8,659,60 TOTAL \$471,471.50

PROJECT NAME: RM 2243 TYPE OF WORK: COUNTY: PRIME PROVIDER: INLAND

20 130 96 140 20 60 120 60 120 56 190 206 160 0 0 0 0 120 56 190 206 160 0 20 0 0 60 120 58/15/28 515/26 516/20 56 516/20 516/20 516/20 516/20 58/17/2 511/370 58/17/3 58/17/3 58/17/3 516/20 516/20 516/20 516/20 58/17/2 511/370 511/370 511/370 511/370 511/370 511/370 511/370 511/370 511/370 511/370 511/370 511/370 511/370 500 500 500 500 521/60/00 50		PROJECT	RPLS TASK LEADER	SURVEY TECH	SURVEY	SENIOR GIS	GIS	GIS TECHNICIAN	FLAGGER	ABSTRACTOR	1- PERSON SURVEY	2- PERSON SURVEY	3- PERSON SURVEY	4- PERSON SURVEY	4- PERSON SURVEY	TOTAL LABOR HRS.
9% 16 20 130 96 140 20 20 60 120 0po 12 36 60 110 20 20 60 120 ATE 2803.46 5155.78 5113.70 2164.72 \$113.70 822.75 583.78 586.85 568.82 5105.00 \$160.00 \$160.00 TAFING 52.4% 6.02% 19.88% 16.74% 0.00% 15.4% 0.00% 0.00% 0.00% 82.160.00 81.60.00 \$2.16	URVEYING		la la							Control of the Control	CKEW	CKEW	CREW	CREW	CREW	& COSTS
3%/3 16 20 130 96 140 20 20 60 120 PPO 12 36 60 110 20 20 0 0 0 60 120 AATE 28 52 190 20 0 0 0 60 120 AATE 520 160 20 0 0 0 60 120 AATE 520 160 20 0 0 0 60 120 AATE 520 160 20 0 0 60 120 AATE 520 520 0 0 0 60 516000 516000 AATE 524% 80.2% 516024 5200 5200 500 500% 500% 5216000 AATE 19.88% 16.74% 0.00% 1.54% 0.00% 0.00% 0.00% 0.00% 0.00% 8246000 5216000 <td></td> <td>All the second second</td> <td>CALL VINE CONTROL</td> <td></td> <td></td>													All the second second	CALL VINE CONTROL		
12 26 130 130 140 150	'upplemental Survey (25%)	18	000	420	90	07.7										0
ATE 28 56 190 206 160 0 20 0 0 0 0 0 0 105 120 120 120 120 120 120 120 120 120 120	cools Elect O'll and Tons	91	0.2	130	96	140		20				9	120			603
TATE 28 56 190 206 160 0 20 0 0 0 60 120 TAFE \$203.46 \$155.56 \$113.70 \$104.72 \$113.70 \$82.75 \$83.78 \$56.85 \$56.82 \$105.00 \$160.00 \$160.00 \$160.00 \$2160.00	reate Final DTM and Topo	12	36	09	110	20							2			200
A/E 528 56 190 206 160 0 20 0 0 0 0 60 120 120 120 120 120 120 120 120 120 12																238
TATE 28 56 190 206 160 0 20 0 0 0 60 120 TATE \$203.46 \$155.56 \$113.70 \$104.72 \$113.70 \$82.75 \$83.78 \$56.85 \$56.82 \$105.00 \$160.00 \$160.00 \$160.00 \$2160.00																0
ATE 28 56 190 206 160 0 0 0 0 0 0 0 100 120 120 120 120 120	1															0
ATE \$203.46 \$155.58 \$113.70 \$104.72 \$113.70 \$20.75 \$83.78 \$56.85 \$66.82 \$105.00 \$150.00 \$120 \$180.00 \$156.50 \$113.70 \$21.572.32 \$118.13.60 \$20.00 \$11.675.2 \$0.00 \$11.675.2 \$0.00 \$11.675.2 \$0.00 \$11.675.2 \$0.00 \$11.675.2 \$0.00 \$11.675.2 \$0.00 \$11.675.2 \$0.00 \$11.675.2 \$0.00 \$10.00 \$	OURS SUB-TOTALS	28	95	190	206	160	0	000	0							0
TAFFING 5.24% 8.02% 19.88% 19.88% 16.00% 16.00% 10.00% 0.00%	CURLY CONTRACT BATE	0000	200		202	001		707	0	0	0	09	120	0	0	
TAFFING \$5.686.77 \$8.712.70 \$21,602.24 \$21,572.32 \$18,191.36 \$0.00 \$1,675.52 \$0.00		\$203.46	\$155.58	\$113.70	\$104.72	\$113.70	\$92.75	\$83.78	\$56.85	\$68.82	\$105.00	\$180.00	6180.00	6205 00	00 000 30	
5.24% 8.02% 19.88% 19.85% 15.74% 0.00% 1.54% 0.00% 0.00% 0.00% 8.44% 19.88%	OTAL LABOR COSTS	\$5,696,77	\$8,712.70	\$21,602.24	\$21,572.32	\$18 191 36	80.00	\$1 R75 F2	\$0.00	0000	0000	000000	00.00	9503.00	93,000,00	
5.24% 8.02% 19.88% 16.74% 0.00% 1.54% 0.00% 0.00% 0.00% 8.84% 19.88%	DISTRIBUTION OF STAFFING	2010	1000					10:010	00:00	30.00	\$0.00	00.000.86	\$21,600.00	20.00	20.00	\$108,650.91
0/000		5.24%	8.02%	19.88%	19.85%	16.74%	%00.0	1.54%	%00.0	%00.0	%00'0	8.84%	19.88%	%00.0	%00.0	100%

SUBTOTAL Labo

OTHER DIRECT EXPENSES	QTY	RATE	COST
Postage		\$0.000	\$0.00
Mileage (per mile)	1000	\$0.580	\$580.00
Lodging/Hotel (Taxes & Fees Included)		\$150.00	\$0.00
Type II ROW Monument - Excavated/Drilled, rocks, rocky soil. 2-4 inch	20	\$240.00	\$4,800.00
Type II ROW Monument - Poured 2-3 Feet (includes One Call, crew time,	20	\$290.00	\$5,800.00
Microsoft Share Point/Project Wise License fee and server		\$400.00	\$0.00
		\$0.00	\$0.00
SUBTOTAL DIRECT EXPENSES			\$11.180.00

SUBTOTAL \$11,180.00

TOTAL \$119,830.91

PROJECT NAME: CAMPO - RM 2243 TYPE OF WORK: COUNTY: SUB-PROVIDER: JMT

TOTAL LABOR HRS. & COSTS \$50,296.00 100.00% 64 32 196 292 SR. PROFESSIONAL SR. ENGINEERING PROFESSIONAL ADMINISTRATIVE/ \$68.00 \$2,176.00 4.33% 60 60 \$125.00 \$7.500.00 14.91% 60 60 \$155.00 \$9,300.00 18.49% 36 36 \$210.00 \$7,560.00 15.03% SR PROJECT MANAGER 32 16 20 68 \$225.00 \$15,300.00 30.42% 16 20 36 \$235.00 \$8,460.00 SENIOR ADVISOR ROUTE AND DESIGN STUDIES
MONTHLY INVOICES AND PROGRESS REPORTS
COORDINDATION MEETINGS
DESIGNS SUPPORT
HOURS SUB-TOTALS
HOURLY CONTRACT RATE
TOTAL LABOR COSTS
" UISTRIBUTION OF STAFFING TASK DESCRIPTION

	RATE
\$50,296.00	QTY
SUBTOTAL	
	DIRECT EXPENSES
	DIRECTE
	DTHER

OTHER DIRECT EXPENSES	QTY OTY	RATE	COST
Lodging/Hotel (Taxes / fees not included)	4	145.00	\$580.00
Lodging/Hotel - Taxes and fees	4	40.00	\$160.00
Meals (Excluding alcohol & tips)	4	26.00	\$224.00
Mileage	1000	0.58	\$580.00
Rental Car (Includes taxes and fees; Insurance costs will not be		100.00	\$0.00
SUBTOTAL DIRECT EXPENSES			\$1.544.00

SUBTOTAL \$1,544.00 TOTAL \$51,840.00

PROJECT NAME: RM 2243 TYPE OF WORK: COUNTY: SUB-PROVIDER: BBI

TASK DESCRIPTION	PRINCIPAL	SR.PROJEC MGR	SR. ENGINEER	SR. PROJEC MGR SR. ENGINEER DESIGN ENGINEER	Ħ	SR. CLERICAL/ ADMINISTRATOR	3D MODELING (PER DAY)	TOTAL LABOR HRS.
OUTE AND DESIGN STUDIES			State of the state		100 miles and 10		The second secon	200
ONTHLY INVOICES AND PROGRESS REPORTS		32				000		10
CORDINDATION MEETINGS	24	24				25		**
EGION CHIDOODI						-		40
SIGN SOFTON	32	32	48	64	72		20	268
OURS SUB-TOTALS	56	88	48	64	72	32	20	380
OURLY CONTRACT RATE	\$285.00	\$260.00	\$201.00	\$145.00	\$130.00	\$89.00	\$810.00	
DTAL LABOR COSTS	\$15,960.00	\$22,880.00	\$9,648.00	\$9,280.00	\$9.360.00	\$2,848.00	\$16 200 00	\$86 176 00
DISTRIBUTION OF STAFFING	18.52%	26.55%	11.20%	10.77%	10.86%	3.30%	18.80%	100.00%

1000 Mileage
Renial Car (Includes taxes and fees, Insurance costs will not be SUBTOTAL DIRECT EXPENSES OTHER DIRECT EXPENSES
Odging/Hotel (Taxes / Hees not included)
odging/Hotel - Taxes and fees
ineas (Excluding alcohol & tips)

145.00 \$560.00 40.00 \$160.00 56.00 \$224.00 0.58 \$560.00 100.00 \$0.00 \$1,544.00

SUBTOTAL \$1,544.00

TOTAL \$87,720.00

PROJECT NAME: RM 2243 TYPE OF WORK: COUNTY: PRIME PROVIDER: WSB

	PRINCIPAL	SR. PROJECT SR. PROJECT SR. TRAFFIC	SR. PROJECT	SR. TRAFFIC	PROJECT	PROJECT	OFFICE	TOTAL
ASK DESCRIPTION		MANAGER	ENGINEER	ENGINEER	ENGINEER	ENGINEER	TECHNICIAN	LABOR HRS.
CHICAGO COLOR COLO					_	=	=	& COSTS
KOUTE AND DESIGN STUDIES								
MONTHLY INVOICES AND PROGRESS REPORTS		32					00	
COORDINDATION MEETINGS	24	24					35	10
DRAINAGE DESIGN SUPPORT	24	32	48		80	Ca		304
					3	8		100
								0
								0
								0
								0
HOURS SUB-TOTALS								0
HOURIN CONTENTS BATT	48	88	48	0	80	80	32	416
HOURLY CONTRACT RATE	\$210.00	\$200.00	\$195.00	\$180.00	\$145.00	\$153.00	\$62.00	
TOTAL LABOR COSTS	\$10,080.00	\$17,600.00	\$9,360.00	\$0.00	\$11,600.00	\$11,600.00 \$12,240.00	\$1 984 00	\$68 289 60
								2000000

	\$68,289,60
	SUBTOTAL
ı	

OTHER DIRECT EXPENSES	YTØ	LIND	COST
Lodging/Hotel (Taxes / fees not included)	4	145.00	\$580.00
Lodging/Hotel - Taxes and fees	4	40.00	\$160.00
Meals (Excluding alcohol & tips)	4	56.00	\$224 00
Mileage	1000	0.58	\$580.00
Rental Car (Includes taxes and fees, Insurance costs will not be		100.00	\$0.00
SUBTOTAL DIRECT EXPENSES			\$1 544 00

SUBTOTAL \$1,544.00

PROJECT NAME: RM 2243 TYPE OF WORK COUNTY PRIME PROVIDER: SAM

NOT DESCRIPTION		SURVEYING	SURVEYING	SURVEYING	SURVEYING	SURVEYING	SURVEYING	SURVEYING FLIGHT CREW	GEOSPATIAL	GEOSPATIAL	GEOSPATIAL	GEOSPATIAL	CEOSDATIA	OFCORPATION	
RVEYING	PRINCIPAL	RPLS PROJECT	PRLS TASK	SENIOR SURVEY	SURVEY	2-PERSON	3-PERSON	FIXED WING	SR. PROJECT	PROJECT/	PILOT	PHOTGRAMMERIST	ACQUI	LIDARI PHOTOGRAMMETRY	LABOR HRS
KVEYING		MANAGER	LEADER	TECHNICIAN	TECHNICIAN	SURVEY CREW	SURVEY CREW SURVEY CREW	AIRCRAFT	MANAGER	ACOUNCITION MCD		200,000	4		
	THE PARK IN								T	ACCOUNT HOW MICH		PROJECT LEAD	AERIAL TRIANGULATION TECH	TECHNICIAN	& COSTS
AM Geospatial											ALCOHOLD TO SERVICE				Service of the service of
Lerial Aquistion															0
alibration								80	2	9	80	16			40
Data Extraction									4	9		4	32	00	2 2
Orthopholography										24		9		242	26.0
DAVac	-									24		00	12	202	707
nh.									8			80	2	212	200
AM Survey														7	77
factor in															0
Aerial Targets / PID's (34 targets-16 truthing)		3	0	16	36	00									0
rimary Control (10 monuments) Differential lavels		3	000	0.00	07	00									114
CONTRACTOR		0	50	32	48	110	20								
		-	1	2	9										266
															10
OURS SUB-TOTALS	0	10	30	50	80	170	50	0	111	000					0
ATE	5.00	\$175.00	£158.00	408 DO	600,00	644000	00 1010	0	7	09	80	42	46	456	1024
OTAL LABOR COSTS \$0.00	00	\$1.750.00	\$4.740.00	\$4 900 00	67 420 00	27.40.00 67.5 600 AG	20.0016	\$190.00	\$205.00	\$165.00	\$130.00	\$115.00	\$98.00	\$95.00	
DISTRIBUTION OF STAFFING	0/0	#DIV/DI	MONOR	WINNIN W	401.120.00	323.000.00	30,200,00	\$1,520.00	\$2,870,00	\$9,900.00	\$1,040.00	\$4,830.00	\$4.508.00	\$43,320,00	C448 548 00
				CALCAL	CONTO	DIAIO	#DIVIO	#DIVIO!	#DIV/O	#DIVIO#	#DIVIO#	#DIV/DI	#DIVIDI	DVAIG#	WOLLD'S
															2

OTHER DIRECT EXPENSES	YTO	RATE	COST
GEOSPATIAL EQUIPMENT			\$0.00
MILEAGE (PER MILE)	1650	\$0.58	\$957.00
GROUND TARGET (INCLUDES PAINT, PANEL MATERIAL.			
ETC) EA	34	\$25.00	\$850.00
MOBILIZATION FOR AERIAL PHOTOGRAPHY/LIDAR FIXED			2000
WING AIRCRAFT (INCLUDES AIRCRAFT, PILOT,			
CAMERALIDAR OPERATOR, FUEL AND TRANSPORTATION			
COST) PER PROJECT	-	00 000 003	00 000 003
FIXED WING AIRBORNE LIDAR-TRANSIT MILES (INCLUDING		2000	950,000,00
TURN, MANEUVER MILES, LOCAL AIRPORT TO PROJECTI			
PER MILE	o.	\$8.00	\$72 nn
AERIAL PHOTOGRAPHY - AIRBORNE GPS/IMU DATA			20.71
COLLECTION/PROCESSING PER PROJECT		\$2.275.00	\$3.27E.00
AERIAL PHOTOGRAPHY - PROJECT FLIGHT MILES TON		200	92.212.00
PROJECT FLIGHT MILES) PER MILE	24	\$30.00	A720 DO
GPS RECEIVER (RATES APPLIED TO ACTUAL TIME GPS			2000
JNITS ARE IN USE) PER HOUR	150	\$25.00	£3 750 00
PRIMARY CONTROL MONUMENT MATERIALS/SUPPLIES			2000
V=	10	\$90.00	\$900.00
SUBTOTAL DIRECT EXPENSES			429 K24 DD

SUBTOTAL \$29,524.00

TOTAL \$148,072,00

PROJECT NAME: RM 2243 COUNTY: WILLIAMSON PRIME PROVIDER: SWCA

NOT LINDS TO THE	MATTER EXPERT TOM ALLEMAND (PM)	PM)	×	Sarciacia	SPECIALIS	SPECIALIST	SPECIALIST	SPECIALIST SPECIALIST	ADMIN V	TOTAL LABOR HRS.
Social, economic And Env. STUDIES AND PUBLIC INVOLV.							THE CONTRACTOR AND ADDRESS OF THE PARTY OF T	CONTRACTOR SERVICE		& COSIS
Sologic Assessing in a large solivery	80		48		52	12				007
Villiamson County Knc-P Application	2		2	2	16		7	C	7 0	777
Digical Assessment	40	24	32		110		16	16	4	30
										0
										0
										0
										0
IOURS SUB-TOTALS	2	700	CO							D
HOURLY CONTRACT RATE	000	+7	70	7	1/8	12	20	18	00	394
UTAL LABOR COSTS	\$210.00	\$187.00	\$171.00	\$109.00	\$99.00	\$89.00	\$78.00	\$67.00	\$89.00	
	CHRTOTAL CE4 305 00	00.001	914,022.00	\$218.00	\$17,622.00	\$1,068.00	\$1,560.00	\$1,206.00	\$712.00	\$51.396.00

TOTAL LABOR HRS. & COSTS

ADMIN V

SPECIALIST II

SPECIALIST

SPECIALIST IV

SPECIALIST X

SPECIALIST XI

SUBJECT MATTER EXPERT TOM ALLEMAND (PM)

PROJECT MANAGEMENT AND ADMINISTRATION Project Invoicing and Progress Reports

HOURS SUB-TOTALS HOURLY CONTRACT RATE TOTAL LABOR COSTS

TASK DESCRIPTION

\$6,300.00

\$0.00

\$67.00

\$78.00 \$0.00

\$89.00

\$99.00

\$109.00

0 \$171.00 \$0.00

\$187.00

30 \$210.00 \$6,300.00 \$6,300.00

SUBTOTAL

30003

OTHER DIRECT EXPENSES		VTO	PATE	TOOST
Mileage (# of miles) (current state rate)		000		
		300	\$0.580	\$174.00
UPS Received		4	650.00	and day
Dholocopies Balditio S V 443			200:00	3200.00
TOTAL CONTRACTOR CONTR		200	\$0.15	00 003
Photocopies Color (11 X 8 5)		1004		00.000
		301	\$0.75	\$75.00
SUBTOTAL DIRECT EXPENSES			The second secon	6479 00
	SUBTOTAL	\$479.00		000

TOTAL \$58,175.00