



October 26, 2021

Andrew Zagars, P.E.
City Engineer
City of Killeen
3201-A Southwest S. Young Drive
Killeen, Texas 76542

via email only
azagars@killeentexas.gov

**RE: City of Killeen – Gilmer Street Reconstruction
Proposal for Professional Engineering Services**

Dear Mr. Zagars,

KSA Engineers, Inc., (KSA) is pleased to present this letter to serve as our proposal to provide professional engineering services associated with the reconstruction of Gilmer Street. KSA and the City of Killeen met on October 11, 2021, to review the scope and goals of the project. This meeting, combined with KSA's site visit and additional pre-project due diligence, provides the basis for this scope and fee proposal. The following is a general description of the project scope of work to be performed, and KSA proposes to complete this scope of work at lump sum fee of \$658,710.00, which is further detailed below.

The proposed project encompasses approximately 3,800 linear feet of Gilmer Street, from W. Veterans Memorial Boulevard in the south, across the BNSF railroad crossing, to the dead-end north of the intersection with Rancier Avenue. Gilmer Street is currently a 2-lane local collector street in poor condition. The City intends to have this road reconstructed with improvements made to the street's sidewalks, drainage, railroad crossing, and traffic signals at the intersections with W. Veterans Memorial Boulevard and Rancier Avenue. Traffic signal improvements will be limited to adding pedestrian signals and push buttons to enable safe and accessible pedestrian crossing across all approaches at Gilmer Street and Rancier Avenue, and across only the Gilmer Street approach at W. Veterans Memorial Boulevard. The existing utilities will remain in place, and street lighting will be provided by the existing Oncor overhead lighting.

Based on our understand of the proposed project scope and recent bid pricing information for similar projects of similar scale, a pre-project opinion of probable construction cost estimates the Gilmer Street reconstruction at approximately \$2.0 million.

Scope of Services

KSA proposes to provide the services in accordance with the existing EJCDC E-505 Standard Form of Agreement with the City, for the scoped improvement listed above. Specifically, we propose to perform the work under the following phases: Study & Report Phase, Preliminary Design Phase, Final Design Phase, Bid Phase, Construction Phase, and Commissioning Phase. The tasks under each of these phases include the following:

Phase A – Study & Report Phase Services

- Participate in a kick-off meeting with the City and stakeholders and conduct weekly coordination and update meetings. It is anticipated that these meetings will be a mix of in-person and virtual settings at the City's preference.
- Perform a geotechnical investigation of the project area including 8 geotechnical exploratory borings up to a depth of 15 feet, standard penetration test, and subgrade bulk sampling for CBR and Triaxial testing. Traffic control utilizing flaggers and HMAC patching of the cores are included. The results of the geotechnical investigation will be summarized in a sealed report provided to the City and included within the technical specifications of the construction contract documents. The final report will include a flexible pavement section recommendation in accordance with City standards, and this recommendation will be used as the basis of pavement section design. This task will be performed by subconsultant Rodriguez Engineering Laboratories.
- Perform topographic design survey of project area in State Plane coordinate system, NAD83 – Central Zone. The Digital Terrain Model will show 1 foot contours, all improvements within the project limits, and hardwood trees 10 inches in diameter or larger. Only above-ground utilities or underground utilities marked by others via One-

Call will be depicted on the survey. This task will be performed by subconsultant Landesign Services. KSA will coordinate any necessary right of entry documentation with the City to complete this task.

- Perform right-of-way retracement boundary survey of project area to determine and depict the existing right-of-way using monumentation found in the field and harmonized with existing public records. These right-of-way boundaries will be depicted in the construction plans and provide the basis for recommended easement or property acquisition required to complete the proposed improvements. This task will be performed by subconsultant Landesign Services. KSA will coordinate any necessary right of entry documentation with the City to complete this task.
- Parcel acquisition documents will be prepared for **up to 10 parcels** and include metes and bounds description with corresponding parcel plat that depicts existing right-of-way, the proposed right-of-way, and the associated property lines of the subject tract(s). This task will be performed by subconsultant Landesign Services. Please note that this task is charged on a *per parcel* basis and can be adjusted to more or less parcels depending on the right-of-way acquisition desired by the City.
- Provide internal quality assurance and quality control of all deliverables including verification site visit of topographic design survey and technical review engineering documents.

Phase B1 – Preliminary Design Phase Services

- Project management and coordination.
- Participate in a design kick-off meeting with the City and stakeholders and conduct weekly coordination and update meetings. It is anticipated that these meetings will be a mix of in-person and virtual settings at the City's preference.
- Prepare, document, and summarize all existing studies and data including any record drawings of improvements made within the right-of-way, utility documentation, approved or pending plats and developments along the project area, and historical records.
- Provide research and identify all existing utilities within the project area based on existing City records and any documentation that can be acquired from utility owners and adjacent developments. A utility conflict matrix will be prepared, and utility stakeholders will be identified for preliminary coordination and notification of the proposed project.
- Provide preliminary design documents depicting the right-of-way requirements for the proposed project in accordance with the City's requirements for use by the City in acquiring easements or property where required.
- Conduct Hydraulic and Hydrologic (H&H) analysis for the proposed project area to determine the size and location of storm water improvements within the right-of-way to accommodate the proposed project. H&H analysis will be performed utilizing HEC-HMS and City development standards, and the results of this analysis will be summarized in a sealed technical memorandum provided for City review.
- Prepare 60% construction plans and technical specifications for the scoped improvements including street and sidewalk plan, profile, and cross sections, associated drainage improvements with storm sewer plan and profiles, construction details, traffic control plans, and marking plans.
- Provide an Engineer's Preliminary Opinion of Probable Construction Cost at the 60% preliminary design submittal.
- Conduct QA/QC by the Independent Technical Review Team of all Design Phase deliverables and provide response to any preliminary design review comments from the City and stakeholders.

Phase B2 – Final Design Phase Services

- Project management and coordination.
- Participate in a design review meeting with the City and stakeholders and conduct weekly coordination and update meetings. It is anticipated that these meetings will be a mix of in-person and virtual settings at the City's preference.

- Prepare 90% construction plans and technical specifications for the scoped improvements including street and sidewalk plan, profile, and cross sections, associated drainage improvements with storm sewer plan and profiles, construction details, traffic control plans, and marking plans.
- Prepare street tree landscaping plan and associated irrigation layout and construction details.
- Prepare Stormwater Pollution Prevention Plan in accordance with City and TCEQ requirements.
- Provide an updated Engineer's Preliminary Opinion of Probable Construction Cost at the 90% final design submittal.
- Conduct QA/QC by the Independent Technical Review Team of all Design Phase deliverables and provide response to any final design review comments from the City and stakeholders.
- Issue 100% sealed construction plans and technical specifications for bidding that incorporate 90% review comments.

Phase B3 – Other Services – Traffic Engineering, Permitting, and Regulatory

- Traffic Engineering: Prepare 60%, 90%, and 100% sealed traffic signal modification construction plans and technical specifications consisting of pedestrian signals and push buttons at the intersection of Gilmer Street with Rancier Street (all approaches) and West Veterans Boulevard (Gilmer approach only). Documents will be prepared in accordance with TxDOT design and construction standards. This task will be performed by subconsultant Lee Engineering.
- BNSF Permitting and Coordination: Prepare and submit all required permitting documents and respond to an assumed two rounds of review comments to secure the necessary permit for the proposed street reconstruction and new sidewalk crossing through the existing BNSF railroad crossing. Administrative and permit fees required by BNSF shall be paid for directly by the City.
- TxDOT Permitting and Coordination: Prepare and submit required permitting documents and respond to an assumed two rounds of review comments to secure the necessary approval for the proposed sidewalk, street, and traffic signal improvements within State right-of-way. Fees are typically not required from TxDOT for these review and approval; however, if any fees are required they shall be paid for directly by the City.
- Texas Accessibility Standards Compliance: Register the project with TDLR per the Elimination of Architectural Barriers requirements and contract with a Registered Accessibility Specialist (RAS) to review the construction plans and inspect the project post-construction for conformance with the Texas Accessibility Standards (TAS) as required by State law. This task assumes a single project for registration and inspection. This task is inclusive of TDLR registration fee and RAS fees for plan review and construction inspection.

Phase C – Bid Phase Services

- Conduct one pre-bid conference meeting and attend the bid opening.
- Respond to technical questions from bidders and issue addenda (two assumed) to address or clarify the contents of the plans and technical specifications.
- Review bids received, prepare bid tabulation, check contractor references, and provide a summary of the bid results for City staff and Council review.

Phase D – Construction Phase Services

- Project management and coordination.
- Conduct one pre-construction conference and attend up to 24 bi-weekly construction progress meetings and site visits with the City, Contractor, Subcontractors, and stakeholders to include a set agenda covering safety and traffic control, status of schedule, two-week work look-ahead, change orders, pay application status, and other relevant items. Periodic site visits scheduled concurrently with construction progress meetings will include observation of work during items of major construction including pre-pour inspections, interim phase completion inspections,

traffic control changes, paving, and unannounced visits to document contractor resources and prosecution of work in accordance with the construction schedule.

- Review of Contractor submittals for conformance with the construction plans and technical specifications utilizing standardized form, numerical tracking, and submission through Newforma project management software.
- Review and negotiate Contractor change order requests as required and provide recommendation for approval to the City.
- Conduct a Final Inspection and prepare a punch list for final acceptance and provide on-site confirmation of punch list completion prior to recommendation for final payment and release of retainage.

Phase E – Commissioning Phase Services

- Prepare record drawings based on as-builts or red-lines provided by contractor and/or the City's inspector provided in both electronic (PDF, CAD) and printed format.

Phase F – Owner Controlled Allowance (Right-of-Way Agent Services)

- Owner Controlled Allowance may be used at the direction of the City for Right-of-Way Agent Services under this contract. If desired and directed by the City, KSA will provide a proposal for Right-of-Way Agent Services after right-of-way needs are defined in the Study and Report Phase of the project. If this proposal for Right-of-Way Agent Services is acceptable to the City, the Owner Controlled Allowance will be used to fund, all or in part, the Right-of-Way Agent Services.

The following services are excluded from this proposal but can be added to the scope and a fee negotiated if desired:

- Environmental services. No environmental analysis or review scope is included in this proposal, and KSA understands that no environmental clearance is required for this project.
- Subsurface utility engineering, identification, coordination. Utilities within the project area will be identified using existing records provided by the City and other utility owners where available.
- Traffic counts. Signal timing for the two modified traffic signals within the project scope will be based on the existing signal timing and traffic data provided by TxDOT or, if available, updated traffic counts provided by the City.
- Right-of-way acquisition services. The scope includes survey documents for **up to 10 parcels** to support right-of-way acquisition, but the acquisition of any needed right-of-way will be performed by the City.
- Construction materials testing. It is understood that the City contracts directly with an independent laboratory to perform construction materials testing during the construction phase.
- Resident Project Representative services. It is understood that the City will provide on-site inspection using in-house staff for this project.
- Landscape architecture. The street tree landscaping plan and irrigation design shall be completed by KSA's in-house professional engineers. Complex landscaping or monumentation requiring a landscape architect is not included in this proposal.
- BNSF and TxDOT administrative and permit fees. Any fees required to secure permit / approval from BNSF and TxDOT for improvements within their right-of-way and to their facilities will be paid for directly by the City.

Compensation

We propose to perform the services described for the above outlined scope at lump sum fees of the following:

Phase A – Preliminary Engineering Phase Services

Geotechnical Investigation	\$ 37,140.00
Topographic Design Survey	\$ 28,565.00
ROW Determination and Retracement Survey	\$ 34,730.00
Metes & Bounds Exhibits (10 Parcels)	\$ 35,650.00

Phase B1 – Preliminary Design Phase Services (60%) \$ 118,000.00

Phase B2 – Final Design Phase Services (90%, 100%) \$ 141,000.00

Phase B3 – Other Services – Permitting and Regulatory

Traffic Engineering (Signal Modifications)	\$ 63,425.00
BNSF Permitting and Coordination	\$ 14,490.00
TxDOT Coordination and Approval	\$ 7,210.00
TAS Compliance (TDLR Registration, RAS Review)	\$ 3,190.00

Phase C – Bid-Award-Execute Phase Services \$ 15,540.00

Phase D – Construction Phase Services \$ 95,210.00

Phase E – Post-Construction Phase Services \$ 4,560.00

Phase F – Owner Controlled Allowance (Right-of-Way Agent Services) \$ 60,000.00

Total for All Services \$ 658,710.00

Schedule

We propose to perform the Schematic Design Phase in accordance with the following schedule.

• Preliminary Engineering Phase	45 calendar days
• Preliminary Design Phase.....	120 calendar days
• Final Design Phase	140 calendar days
• Bid Phase	45 calendar days
Preliminary, Design, and Bid Phases	350 calendar days
• Construction Phase	300 calendar days (assumed)
Total Project Duration.....	650 calendar days

Note: Project schedule does not include extended times for Owner, agency, or stakeholder review – 10 calendar day review times are assumed. BNSF and TxDOT approval processes may extend the times shown. Bid Phase schedule is typical based on projects of similar scope and scale and includes the duration from posting the project for bids to construction contract award by Council. Right-of-way agent services will take place concurrently with the Preliminary and Final Design Phases but may extend beyond these times depending on the scope of these services to be determined after the Study & Report Phase.

Sub Consultants

Sub consultants to be used by KSA are as follows:

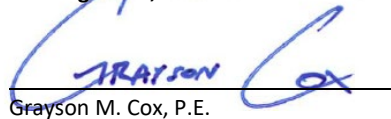
1. Rodriguez Engineering Laboratories – geotechnical engineering and pavement section recommendation
2. Landesign Services – topographic survey, boundary survey, right-of-way acquisition survey documents
3. Lee Engineering – traffic engineering for signal modification design

Sub consultant fees have been incorporated into KSA's fee calculation for engineering services. A 15% carrying factor has been included to cover our associated expenses, such as administration costs and additional liability insurance.

Proposal Acceptance

KSA understands that upon completion of the fee negotiation, a Task Order will be offered that takes the project through the completion of the preliminary, design, bid, construction, and closeout phases. As always, KSA appreciates the opportunity to provide professional services for the City of Killeen. If you have any questions, please do not hesitate to call.

Respectfully,
KSA Engineers, Inc.



Grayson M. Cox, P.E.
Project Manager

Attachments: Excerpt of KSA Presentation, Gilmer Street, September 21, 2021
 KSA Engineers, Inc., 2021 Schedule of Hourly Fees
 G&H Associates, Inc., Per Diem Rates & Expenses (ROW Agent Services)

Gilmer Street (Residential)

- 2-Lane with Curb & Gutter
- Add Roadway Landscaping
- Replace Sidewalks as Needed (5')
- Verify ADA Compliance

Fort Hood ↗

Gilmer Street

Example Street View



W Veterans Memorial Boulevard

Railroad

Rancier Drive

Dead End

↓
Downtown
Killeen

↓
Downtown
Killeen



2021 SCHEDULE OF HOURLY FEES

Principal	\$265.00/hour
Senior Environmental Planner	\$220.00/hour
Environmental Planner	\$175.00/hour
Senior Aviation Planner	\$220.00/hour
Aviation Planner	\$180.00/hour
Senior Urban Design Planner	\$215.00/hour
Urban Design Planner	\$185.00/hour
Development Services Manager	\$195.00/hour
Electrical Engineer	\$235.00/hour
Mechanical Engineer	\$175.00/hour
Senior Project Manager	\$220.00/hour
Project Manager	\$175.00/hour
Senior Project Engineer	\$170.00/hour
Project Engineer	\$140.00/hour
Senior Design Engineer	\$130.00/hour
Design Engineer	\$115.00/hour
Senior Project Architect	\$215.00/hour
Project Architect	\$145.00/hour
Design Architect	\$100.00/hour
GIS Specialist	\$180.00/hour
Senior Engineering Technician	\$190.00/hour
Engineering Technician	\$105.00/hour
Senior Design Technician	\$120.00/hour
Design Technician	\$ 85.00/hour
Safety Manager	\$135.00/hour
Safety Specialist	\$100.00/hour
TCEQ Instructor	\$100.00/hour
Regulation Compliance Specialist	\$ 90.00/hour
Project Assistant	\$ 85.00/hour
Senior CAD Technician	\$ 90.00/hour
CAD Technician	\$ 80.00/hour
Senior Project Representative	\$110.00/hour
Senior Project Representative - After Hours	\$130.00/hour
Project Representative	\$ 95.00/hour
Project Representative - After Hours	\$115.00/hour
Graphic Designer	\$ 75.00/hour
Administrative Assistant	\$ 75.00/hour
Secretary	\$ 55.00/hour
Three-Man Survey Crew	\$190.00/hour
Two-Man Survey Crew	\$160.00/hour
Senior Registered Surveyor	\$175.00/hour
Registered Surveyor	\$135.00/hour
Senior Survey Technician	\$115.00/hour
Survey Technician	\$100.00/hour
Mileage	\$ 0.56/mile
ATV (4-Wheeler)	\$100.00/day
GPS	\$100.00/day

Reimbursable Expenses (Travel, Lodging, Copies, Printing) Actual Cost

Outside Consultants Cost + 15%

NOTE: The Standard Hourly Rates and Reimbursable Expenses Schedule shall be adjusted annually as of January to reflect equitable changes in the compensation payable to Engineer.



G & H ASSOCIATES, INC. shall bill KSA Engineers, Inc. the sum of \$450.00 per diem per row agent for time actually expended of a minimum of 8 hours daily and \$550.00 per diem for Bob Ground in pursuing the services to be rendered as set out KSA Engineers, Inc., including but not limited to investigating real estate records, perform curative responsibilities, and perform any additional services and provide any additional information as set out by KSA Engineers, Inc., for the Gilmer Street project in Killeen, Texas.

In addition, a mileage equivalent of \$0.56 per mile based on the city limits of TYLER, TEXAS being point of origin, and any actual and necessary expenses.

Thanks,

**BOB GROUND
PRESIDENT
2098 THREE LAKES PARKWAY
TYLER, TEXAS 75703
OFFICE 903-581-4050
CELL 903-571-0832**