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April 21, 2021

Mr. James Billeck, P.E.
3210 E. Avenue H
Building A
Temple, Texas 76501

Re: City of Temple
2nd Street (Central to Adams)
Final Design

Dear Mr. Billeck:

At the request of the City of Temple Reinvestment Zone #1 (TRZ), we are submitting this proposal for the above referenced project. This project will develop Final Design plans and specifications for the 2nd Street (Central to Adams) Project.

The work to be performed by KPA under this contract consists of providing planning and engineering services for design of the project described above to include final design plans and specifications ready for bidding for 2nd Street (Central to Adams) Project. The project shall follow the concepts of the Downtown Masterplan created in 2013 and coordinated layouts with the Turner-Behringer Real Estate Group. The timeframe for design of the project is four (4) months from the Notice to Proceed.

KPA will perform all work and prepare all deliverables in accordance with the latest version of AASHTO regulations and City of Temple specifications, standards and manuals. Terracon will perform the geotechnical investigations for the project and McCreary and Associates will perform the electrical engineering. These groups performed the corresponding services for the Downtown Center Project.

KPA will perform quality control and quality assurance (QA/QC) on all deliverables associated with the project.

The following services will be performed:

1. DOWNTOWN CITY CENTER REVISIONS
    a. Revise the design elements for Downtown City Center in conjunction with the TBRE Group design and layout.

2. PRELIMINARY GEOMETRIC DESIGN FOR 2nd STREET

   a. Geometric Design – Develop preliminary geometric design for the project limits to determine location and alignments with proposed infrastructure, existing public infrastructure and storm water conveyances, etc.

3. FIELD SURVEYING FOR 2nd STREET

   a. Topographic Surveys for Engineering and Landscape Design.
      i. Data collection shall consist of surveying all elements of the project to complete the design requirements. Elements shall include, roadways, curb and gutter, existing streetscape amenities, existing buildings, etc.

4. PRELIMINARY ROADWAY AND UTILITY DESIGN FOR 2nd STREET

   a. Geometric Design - Preliminary horizontal geometry will be designed illustrating locations for curb and gutter, intersections, driveway connections, sidewalks, landscaping, connections to existing topography, etc. Final vertical geometry will be designed illustrating a preliminary plan profile for the roadway improvements. Sidewalk geometry will be designed to ensure connection and layout within the rights-of-way and easements for the project.
   b. Typical Sections - Develop preliminary roadway typical sections for the project. Geotechnical data will be gathered with road sections designed.
   c. Alignment Data Sheets - Prepare preliminary horizontal and vertical alignment data sheets.
   d. Plan & Profile Drawings - Prepare preliminary plan & profile sheets for the project. The sheets shall include the following:
      i. Control and benchmark data.
      ii. Preliminary roadway improvements including horizontal and vertical roadway geometry and drainage.
   e. Roadway Cross-Sections - Prepare preliminary design cross-sections for the project.
   f. Prepare Preliminary Design 12-inch waterline from Central Avenue to Adams Avenue.

5. PRELIMIANRY DRAINAGE DESIGN FOR 2nd STREET

   a. Develop storm water hydrology for the preliminary roadway section throughout the limits of the project. The hydrology shall be modeled utilizing HEC-HMS with City of Temple drainage criteria. The model shall incorporate the 10%, 4% and 1% annual chance storm (10-year, 25-year, and 100-year) events. Modeling shall develop storm water flows to all cross culverts and roadway conveyances.
   b. Develop preliminary designs for all drainage structures within the project limits.
   c. Develop preliminary designs for the storm water collection system for the curb-and gutter roadway system. Storm sewer systems shall be analyzed and designed utilizing City of Temple criteria. All drainage infrastructures shall be presented in the plans in plan and profile.
   d. Design storm water conveyance to existing storm sewer systems, streams and channel ways. Design shall include conveyance for positive drainage.

e. Determine potential utility conflicts based on Preliminary Design Phase for the project area.

6. PRELIMINARY LANDSCAPE DESIGN FOR 2nd STREET

a. Develop preliminary design for landscaping for the project.
b. Incorporate Downtown Master Plan amenities into the preliminary design.
c. Prepare exhibits illustrating landscape design.
d. Prepare exhibits illustrating Downtown Master Plan amenities in conjunction with proposed landscaping improvements.
e. Develop Sketchup Model and visual aids.
f. Develop preliminary opinions of probable cost for landscaping and irrigation for 2nd Street.

7. FINAL GEOMETRIC DESIGN FOR 2nd STREET

a. Geometric Design - Finalize geometric design for the project limits to determine location and alignments with proposed infrastructure, existing public infrastructure and storm water conveyances.

8. FINAL ROADWAY AND UTILITY DESIGN FOR 2nd STREET

a. Geometric Design - Final horizontal geometry will be designed illustrating locations for curb and gutter, intersections, driveway connections, sidewalks, landscaping, connections to existing topography, streetscape amenities, etc. Final vertical geometry will be designed illustrating a plan profile for the roadway improvements. Sidewalk geometry will be designed to ensure connection and layout within the rights-of-way and easements for the project.
b. Typical Sections - Develop final roadway typical sections for the project. Sections will be based on previous data gathered in the Preliminary Design Phase.
c. Alignment Data Sheets - Prepare final horizontal and vertical alignment data sheets.
d. Plan & Profile Drawings - Prepare final plan & profile sheets for the project. The sheets shall include the following:
    i. Control and benchmark data
    ii. Final roadway improvements including horizontal and vertical roadway geometry and drainage
e. Roadway Cross-Sections - Prepare final design cross-sections for the project.
f. Prepare Final Design 12-inch waterline from Central Avenue to Adams Avenue

9. FINAL DRAINAGE DESIGN FOR 2nd STREET

a. Develop storm water hydrology for the final roadway section throughout the limits of the project. The hydrology shall be modeled utilizing HEC-HMS with City of Temple drainage criteria. The model shall incorporate the 10%, 4% and 1% annual chance storm (10-year, 25-year, and 100-year) events. Modeling shall develop storm water flows to all cross culverts and roadway conveyances. After the models have been finalized, additional conveyance improvements or infrastructure to receiving storm water main drainage infrastructure may be required.
b. Develop final designs for all drainage structures within the project limits.

c. Develop final designs for the storm water collection system for the curb-and gutter roadway system. Storm sewer systems shall be analyzed and designed utilizing City of Temple criteria. All drainage infrastructures shall be presented in the plans in plan and profile.
d. Design storm water conveyance to existing storm sewer systems, streams and channel ways. Design shall include conveyance for positive drainage. Additional conveyance improvements or infrastructure to receiving storm water main drainage infrastructure may be required.
e. Determine potential utility conflicts based on Preliminary Design Phase for the project area.

10. FINAL LANDSCAPE DESIGN FOR 2nd STREET

a. Develop final design for landscaping for the project.
b. Incorporate Downtown Master Plan amenities into the final design.
c. Prepare exhibits illustrating landscape design.
d. Prepare exhibits illustrating Downtown Master Plan amenities in conjunction with proposed landscaping improvements.
e. Develop final opinions of probable cost for landscaping and irrigation.

The following scope of work for 2nd Street (Central to Adams) Final Design can be completed for the lump sum price of $84,800. Below is a breakdown of project costs. We are pleased to submit this proposal and look forward to the benefit it will bring the City of Temple.

City Center Revisions		$	6,800.00
Design Surveys		$	3,500.00
Geotechnical Investigations		$	3,200.00
Environmental Investigations		$	2,800.00
Preliminary Civil Design		$	10,200.00
Preliminary Electrical Design		$	2,200.00
Preliminary Landscape Design		$	6,000.00
Final Civil Design		$	29,100.00
Final Electrical Design		$	4,500.00
Final Landscape Design		$	16,500.00
	TOTAL	**$**	**84,800.00**

Sincerely,

R. David Patrick, P.E., CFM

xc: File

ATTACHMENT "C"

Charges for Additional Services

City of Temple
2nd Street (Central to Adams) Final Design

POSITION	MULTIPLIER	SALARY COST/RATES
Principal	2.4	$ 75.00 – 95.00/hour
Project Manager	2.4	60.00 – 75.00/hour
Project Engineer	2.4	50.00 – 60.00/hour
Engineer-in-Training	2.4	40.00 – 50.00/hour
Engineering Technician	2.4	35.00 – 50.00/hour
CAD Technician	2.4	30.00 – 50.00/hour
Clerical	2.4	15.00 – 30.00/hour
Expenses	1.1	actual cost
Computer	1.0	15.00/hour
Survey Crew	1.1	125.00 – 160.00/hour
Registered Public Surveyor	1.0	130.00/hour
On-Site Representative	2.1	30.00 – 40.00/hour