

***EXHIBIT A***

**SCOPE OF SERVICES**

**RAPID CITY - DOWNTOWN LIGHTING PROJECT - PHASE 4**

**PROJECT No. 21-2637, CIP 51228**

The City of Rapid City Vision Fund provided funds to Destination Rapid City for Downtown Lighting replacements. Due to design efficiency and good bidding climates, funding will support additional lighting replacements east of East Boulevard located in downtown Rapid City, SD. The City of Rapid City and Destination Rapid City requested proposals to provide professional engineering services for the design for the installation of enhanced and decorative roadway and pedestrian lighting project.

The scope includes electrical and civil design services related to extending the established downtown lighting design (Main St and St Joseph from West Boulevard to East Boulevard) East to reach the SDSM&T campus (Hardrocker 2 Apartments) along St Joseph only. The work will include surveying the site for existing and new pole locations, poles and LED fixtures analysis, design, cost estimates, and bidding services for the installation of the lighting system as designed on St. Joseph Street from East Boulevard for 5 blocks to the East.

The scope includes services are related to expanded Construction Services for the installation of phase I of the lighting system on Main and St. Joseph Streets from West Boulevard to East Boulevard, which are the East-West through fares located in downtown Rapid City, SD.

Skyline Engineering will be the lead consultant for the project. FMG Engineering will be a sub-consultant and will provide support services including surveys, base map creation, and assistance with preparation of bidding & contract documents.

The basis of the project scope anticipates the following:

1. An updated final design and report for Main and St Joe lighting installation of new decorative roadway and pedestrian lighting poles and fixtures. The project will not replace signal poles, but will replace the area lighting luminaries on the signal poles.
2. An updated final design and report for necessary footings for new lights and associated civil and concrete work associated with placing new footings and the removal of old footings. It is a goal of this project to utilize as many of the existing pole footings as practical.
3. An updated final design and report for installation of additional conduit, wiring, junction boxes, and electrical services as necessary to expand the existing roadway lighting system. It is a goal of this project to utilize as much of the existing conduit and the electrical services as practical. Coordination with Black Hills Energy per plans and similar to previous phases.
4. Preparation of final construction documents implementing the scope outlined herein.

Professional services being proposed includes the services outlined below as required by the following tasks: 1 – Preliminary Design Services, 2 - Final Design Services, 3 - Bidding Services, 4 – Construction Services, 5 Expanded Construction Services.

### **TASK 1 – PRELIM DESIGN SERVICES**

- 1.1 Kick off design Conference: The consultant shall meet with City staff to quickly review project concept and scope. The consultant shall prepare an agenda, take minutes, and distribute minutes.
- 1.2 Review background information. Identify Resources to be used as needed. Site observations as required. Coordinate with Civil Engineers Findings.
- 1.3 Perform Site survey required for design.
- 1.4 Determine locations of existing water, and other utilities, etc.
- 1.5 Determine locations of existing san sewer services.
- 1.6 Develop & Communicate with property owners. N/A
- 1.7 Meet with individual property owners regarding ROW, etc.
  - 1.7.1 Identify potential business impacts, traffic interruptions, and Associated Concerns.
- 1.8 Private Utilities Base Plan Verification Meeting/Coordination: Base to Utility companies.
- 1.9.A Concept Design Submittal.
- 1.9.B. Concept Design Drawings.
- 1.10 Attend Submittal Review Meeting with City, staff, as necessary

### **TASK 2 - FINAL DESIGN SERVICES:**

This task consists of all services necessary to take the project from the Preliminary Design through the Final Design, and may include the following itemized services.

- 2.1 Final Design Kick-off Conference: The consultant shall meet with City staff to detail project solution options. The consultant shall prepare an agenda, take minutes, and distribute minutes. Tasks include: A. Review the base data collected by the team, do a walk-through of the project area and take notes on the existing conditions. B. Provide site analysis of the functional aspects of the project area that will be impacted as a result of the lighting project – these include documentation and analysis of the built environment throughout the project: streetscapes, structures, signage, future development, pedestrian environment, parking meters, and perceived environment for different users. C. Design will apply the Federal, State and Local Codes, Rapid City's design requirements to the project as we understand their implications, and review of government requirements as applicable to the site. In addition, inherent and/or fundamental task will include:
  - 2.1.1 Re-verify design assumptions and design goals.
  - 2.1.2 Identify and Record Objectives and Directives.
  - 2.1.3 Consider other City Projects. Coordinate and collaborate with other City Projects.
  - 2.1.4 Final Kickoff Meeting, FMG shall also Attend.
  - 2.1.5 Summarize/Review fixture, types, and locations.
  - 2.1.6 Prepare/document plausible sequences of construction.
- 2.2 Project Support Tasks (Civil Engineering) include: Gather and review Civil Engineering and other information as applicable and understand the past and concurrent projects that will impact the lighting project as well as doing specific research to discover what has been already discussed

and understood by stakeholders in the project. In addition, inherent and/or fundamental task will include:

- 2.2.1 Update Conceptual Drawings Per City Comments
- 2.2.2 Determine Concrete removal limits with City Approval.
- 2.2.3 Prepare any Permits and Exhibit the City will need to execute the work.
- 2.2.4 Identify any Permits required by the Contractor.
- 2.2.5 Identify the existing right-of-way (ROW) location and any ROW or easements necessary for the Project.
- 2.2.6 Perform site surveys if/as required to supplement the GIS Info, Aerial Photos & historic drawings sufficient for the final design plan preparation.
- 2.2.7 Provide information to the City who will edit & prepare the Front-End documents.

2.3 Final Design Submittals - Bid documents anticipated to be submitted two times, task accordingly.

2.3.1. The Final Design Submittal shall generally consist of an updated Design Report, and Construction Documents and Photometric Supporting plans, both for owner review and Final Construction Documents.

- 2.3.1.1 Updated Final Design Report. The consultant shall identify project specific design criteria and standards within the Final Design Report.
  - a. Design for the lighting, footing, conduit/wire, electrical service design.
  - b. QC - Review and Verify City Standards and Guidelines Compliance, and IES RP-8. Prepare an exceptions report. Note the design will deviate from RP-8 as related to street lighting criteria since RP-8 is not tailored for façade lighting – which is a primary design objective for this project.
  - c. Prepare a collaborative sequence of construction description.
  - d. Update and submit a PDF of the Final Design Report.
  - e. Final Cost Estimate for Design Report.
  - f. Energy analysis to document existing energy use vs proposed energy use.
- 2.3.1.2 Final Construction Drawings and Specifications. The consultant shall prepare the plans and detail sheets which identify the construction scope for the contractors.
  - g. Owner Review Submittal: The documents and specifications shall be submitted to City of Rapid City's project manager for review and comment prior to the final Construction Documents.
    - i. Delivery shall include (1) full size copy, (2) ½ size copies and a PDF version of the drawings, specifications, and cost estimates.
  - h. Final Documents Submittal: The Final Construction Documents and specifications shall be submitted to City of Rapid for authorization for bid letting.
    - i. Delivery shall include City of Rapid City Front end documents and (1) full size copy and a PDF version of the drawings, specifications, and estimates.
    - ii. Delivery shall also include electronic information including CD's in AutoCad. Civil Engr to provide topo, control, design points in tabular and hardcopy form.
    - iii. Specifications shall be provided in WORD or on plans. The estimate shall be provided in EXCEL.
  - i. Each set of plans and specifications shall include (certifications on spec cover and on each plan sheet:

- i. Cover Sheet with Index of Sheets indicating the drawing sheets.
- ii. Survey/Traffic Control Sheets identifying:
  - 1. Survey information and property layout and land Ownership for each block
  - 2. Anticipated traffic control phasing, and erosion control measures, handled by typical details and narrative language on the plans.
  - 3. Identify any major utility issues and associated cost relative to the design concept.
- iii. Electrical plans delineating new pole/fixture locations and pole/replacement fixture locations.
- iv. Electrical plans indicating existing conditions and new pole locations. Plan sheets prepared utilizing the latest City of Rapid City Configurations and Drafting Standards.
- v. Light Fixture and Poles Schedule.
- vi. Details of Pole and Fixtures.
- vii. Details of Pole Bases, new and existing. Decorative pole attachment details as required.

2.4 Task and Documents in support of construction documents. Bid documents submitted two or three times as required, task accordingly.

- a. Provide layout with lot lines and addresses, including adjacent, rental or owner.
- b. Determine Removal Limits with City approval. – See Civil Section.
- c. Final Coordination with utility Company, BHE.
- d. Secure design exceptions from infrastructure Design Criteria Manual and City Specifications. Document in Report and/or on plans.
- e. Prepare any permits and exhibits the City will need to execute work.
- f. Identify permits that will be required by the contractor. Identify the permit and identify them as a contractor cost to be bid.

2.5 Detailed Lighting Design Task in Support of Construction Documents. Bid documents submitted two or three times as required, task accordingly.

- a. Verify capabilities of existing Poles/Lights: Re-use existing bases as allowed,
- b. Final Lighting Poles Types and Detail Drawings
- c. Finalize Standard Base/Footing Details.
- d. Final Lighting Fixture Types and Detail Drawings.
- e. Final Block-by-Block Design Plans QC for all 5 blocks - 5 Sheets.
- f. Final Fixtures Qty Sheets - 1 sheets.
- g. QC-Review for Clarity and Constructability.
- h. QC for use of RC Drafting Standards.
- i. Provide complete plans and specs for unit price contract.

2.6 Task associated with delivery of Report and Documents. Bid documents submitted two or three times as required, task accordingly.

- 2.6.1 FMG to coordinate Front-End Bidding Documents with City Staff and PM's. Final Pass.
- 2.6.2 Attend submittal review meeting and 1 additional mtgs with City staff. Record directives.
- 2.6.3 Attend Pre-bid and Pre-Con Meetings – 2 meetings. Record.

2.7 Cost Estimates: This task consists of all services necessary to utilize the detail provided in Task 1, and Final Design Services, to provide a probable opinion of construction costs for the project. The costs analysis shall be itemized based on the City's standard bid items and appropriate

contingency item allowance. Bid documents submitted two or three times as required, task accordingly. Update the 2014/2018 cost estimates per the following:

- 2.7.1 Utilize Unit Cost Basis as applicable per City Standards.
- 2.7.2 Update per recent DOT and City Records, Research and Draw from Recent Bids.
- 2.7.3 Identify Conditions that could impact costs.

### **TASK 3 – BIDDING SERVICES:**

This task consists of all services necessary for the administration of the Bidding Services of the project, and may include the following itemized services. Bid documents submitted two or three times as required, task accordingly.

- 3.1 Submit sufficient information to the City of Rapid City project manager for completion of City Advertising Authority form.
- 3.2 Consultant shall proof print quality at printers before full production of copies are made.
- 3.3 Arrange and conduct a Pre-bid Conference. Record attendance and minutes. Distribute minute copies to only Consultant and City.
- 3.4 Prepare and issue addenda to the bid documents as required.
- 3.5 Review Bidder's Proposals and review and sign the City Engineering Services prepared Bid Tab, and prepare an award recommendation letter to the City of Rapid City project manager.
- 3.6 Prepare "As Built" plans and specifications. A hard copy of "As Built" plans and specifications shall be submitted to the City in the same size and format as construction plans. The Consultant will provide PDF's, and CAD files on a CD or DVD. The digital submittal must be compatible with AutoCAD Civil 3D 2011, or newer, containing all files and data packaged in a format that will allow City personnel to seamlessly open "As Built" drawings. The Consultant will work with the City CAD technician to demonstrate the CAD file operation and compatibility with City CAD software, if necessary.

All "As Built" plans and specifications, believed by the Engineer of Record to be a final, shall contain a Certification Statement of Conformance, which shall read, "I (insert Engineer of Record's name) Certify that the As Built drawings and specifications contained here within, to the best of my knowledge, represent the constructed project. This statement shall appear on the title sheet of the drawings and on the first page of specifications after the cover sheet. The "Certification Statement of Conformance" shall be signed and dated by the Engineer of Record.

- 3.7 Attend Public Works Meetings if necessary to address City Public Works Director.

### **TASK 4 – CONSTRUCTION SERVICES:**

This task consists of services identified below to assist in facilitate the bidding and construction of the project design, which may include the following itemized services.

- 4.1 Arrange and coordinate Pre-Construction Conference including agenda. Record minutes and distribute to all attendees.

- 4.2 Provide written clarification regarding drawing and specification questions.
- 4.3 Provide recommendations to address changes or unknown conditions that may appear during construction.
- 4.4 Review and take action on shop drawings, product submittals, test results, and other submittals.
- 4.5 Provide record drawings per city Standards.

#### **TASK 5 – EXPANDED CONSTRUCTION SERVICES:**

This task consists of all services necessary for the administration of the Expanded Construction Services of the project construction stage and may include the following itemized services.

- 5.1 Project Kick-Off & Notifications
  - A. Review removal limits of appropriate items.
  - B. Help coordinate Public Service Announcements (P.S.A.'s) with Engineering Services for distribution. Engineering Services will be responsible for distribution to all local media.
  - C. Appropriately notify affected Property Owners.
- 5.2 Arrange and conduct weekly progress meetings – one/week at most. Record minutes and distribute to all attendees.
- 5.3 Observation & Reporting
  - A. Provide on-site observations to assure that the methods and materials used by the contractor meet the intent of the plans and specifications. For buried installations such as for new footings and conduit/cable the Consultant shall make it a point to be on site periodically at the time the Contractor is installing these buried installations.
  - B. Prepare a weekly report. A weekly record of activity will be maintained by the inspector including weather conditions, construction progress, deviations from the plans and specifications, work performed, quantities installed and any other pertinent information. Such information shall be neatly and concisely entered into an electronic facsimile of the City of Rapid City Project Inspector's Diary and Inspection quantity book. Submit electronic copies to Engineering Services on a weekly basis.
- 5.4 Prepare and submit monthly pay request information.
- 5.5 Prepare change orders, and extra work orders for contractor on City of Rapid City forms and make recommendations for their approval or denial.
- 5.6 Project Closeout
  - A. Prepare and submit project completion punch list items to the Contractor and Engineering Services and oversee its completion.
  - B. Prepare and submit City of Rapid City project "Construction Project Close-out Checklist" indicating compliance with Standard Specifications and acceptance of the various infrastructure components. The Consultant is responsible for coordinating completion of the checklist items with the Contractor.
  - C. Prepare letter of certification of project completion verifying compliance with plans and specifications and start of warranty period.
  - D. Ensure Contractor's two-year warranty surety is provided to the City of Rapid City either within the performance bond or as a separate bond.

5.7 Warranty Period Services

- A. Assist the City in addressing and communicating warranty items with the Contractor that may arise during the City's 2-year warranty period.
- B. Perform a 2-year warranty inspection and create a punch list of items for the Contractor to complete.

5.8 Reimbursables including, Mileage, Expendables for Expanded Construction Services.

5.9 Provide the following services as optional services.

5.9.1 Review contractor's schedule of values.

5.9.2 Review alternative methods by contractor or City of Rapid City.