City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: Materials Management

ACM: Mario Canizares

DATE: July 18, 2017

SUBJECT

Consider adoption of an ordinance of the City of Denton, Texas authorizing the City Manager to execute a Professional Services Agreement for Architectural and Design services relating to the Hickory Substation Gas Insulated Substation (GIS) Equipment Building and Screening Wall, and the Eagle Substation Gas Insulated Substation Equipment Building; providing for the expenditure of funds therefor; and providing an effective date (File 6483-awarded to Kirkpatrick Architecture Studio in the not-to-exceed amount of $616,700). The Public Utilities Board recommends approval (4-0).

FILE INFORMATION

The Hickory and Eagle substations are approved Capital Improvement Plan (CIP) projects. Sites have been selected for both substations and because of site size restrictions and aesthetic concerns, the City Council has directed that both substations are to be constructed as Gas Insulated Substations (GIS) and that the Hickory Substation be enclosed within a decorative screening wall. GIS substations can be constructed on significantly smaller sites than would be required for an equivalent Air Insulated Substation (AIS). The 138kV gas insulated bus and equipment, which are compact and contained in completely enclosed, grounded compartments, will be installed inside a GIS building on each site. The Professional Services Agreement proposed herein is to procure the architectural/engineering services necessary to accomplish the designs for the two (2) GIS buildings and for the Hickory Substation screening wall.

The building for the Hickory Substation will be approximately 60’ x 80’, and the Eagle Substation building will be approximately 55’ x 72’. In addition to the Gas Insulated Substation equipment, the building will house protective relay, station batteries, Supervisory Control and Data Acquisition system (SCADA), communication, and other equipment for system control and protection. Power transformers and distribution switchgear buildings will be located exterior to the GIS building in each station. Exhibit 2 shows the Hickory and Eagle Substation site concepts.

Fencing or screening is necessary to provide the required perimeter security for the Hickory Substation. The City of Denton currently has a contract with Walsh’s Hawk Construction Company for precast concrete security/screening fences (RFP #5963) for substations. However, Denton Municipal Electric (DME) presented options regarding the station configuration and aesthetic treatment to the City Council for the Hickory Substation on June 21, 2016 and staff was given direction to install an architectural wall with an approximate height of 20 feet. Council also approved formation of a committee consisting of Council members, Council appointees, Public Utilities Board members, and community participants to develop a concept for the screening wall. Exhibit 4 shows the concept that was chosen by the committee. The screening wall must be designed to address the technical requirements for security and provide an

aesthetically pleasing appearance to the public. Kirkpatrick Architecture Studio was engaged to create the concept based on input from the committee.

Kirkpatrick Architecture Studio (KAS) is a firm located in Denton that has the capability to complete the necessary designs. KAS was selected as the most qualified because of capability, previous work completed for the City of Denton, and because they expended significant effort in creation of the concept. In accordance with Texas Local Government Code 252.022, the procurement of professional services is exempt from the requirement of competition based selection. The proposed fee amount for these professional services was negotiated by staff and is consistent with the level of effort required for a project of this nature.

The contract is structured to be billed on an hourly basis for work performed. It should also be noted that the contract **does not** obligate DME to provide work to fulfill the contract amount or to make **any** minimum expenditure. DME views the estimate for services from KAS as exactly that–an estimate in advance of knowing the exact work that could be required, especially for the screening wall. The concept for the wall does not define the exact materials to be used or the specific structural methods that will be required to support the wall and provide a foundation. While this will likely have more of an effect on the cost than on the design, it could also result in additional design cost.

The GIS building designs will of necessity, be repetitive processes. DME must inform the GIS equipment vendors, as part of the RFP advertisement, how it proposes to structure the building design. GIS vendors all have different sizes and layouts for their equipment. The successful vendor will be required to provide information on any building special features along with a building floor layout for their specific equipment which will include floor features and structural requirements. While DME has done extensive research in to probable GIS equipment floor plan arrangements in coming up with building concept plans, adjustments could be necessary that result in building design changes that there is no way to anticipate prior to selection of the GIS vendor. To minimize this, DME will only perform initial building design to the point where the intended structure and features are described in sufficient detail to allow the vendor and architect to proceed with integrating their respective designs.

To be fully transparent, the design work necessary for the Hickory and Eagle substation projects has a certain amount of uncertainty due to the nature of the work required. The exact details for the GIS building designs cannot be known at this time because we do not have information that the equipment vendor must supply as part of the RFP process. Research has been done to attempt to determine the probable design necessary. Full definition will be given by the successful vendor when the selection process is complete. Secondly, there are options for how the Hickory Substation screening wall can be constructed. There are choices related to configuration, material, and structural support that cannot be made without research that must go beyond creation of the concept that was approved. Assumptions have been made, but the design may ultimately require more extensive structural work (or possibly less) than appears necessary at this point. While every effort has been made to properly estimate the cost of the design, it is possible that an amendment could be required in the future because of the unknown nature of certain elements. As stated in the beginning of this paragraph, these comments are an effort to be transparent with what DME believes to be a reasonable possibility related to this contract. Please note that the proposal included only limited consultation with Kirkpatrick during construction and no direct construction inspection. Project construction inspection services are normally obtained through another existing contract.

The following is a summary of the estimated contract cost:

From the proposal:

- Hickory Substation GIS building design and engineering: $229,000
- Hickory Substation screening wall design and engineering: $212,200
- Eagle Substation GIS building design and engineering: $165,500
- Printing and miscellaneous: $ 10,000

Total not-to-exceed amount for the contact: $616,700

Design and construction of these facilities is being coordinated with the City of Denton Facilities Management department. Facilities Management will provide assistance and guidance throughout the design and construction efforts.

PRIOR ACTION/REVIEW (COUNCIL, BOARDS, COMMISSIONS)

On July 10, 2017, the Public Utilities Board recommended approval to forward this item to the City Council for consideration.

RECOMMENDATION

Approve a Professional Services Agreement with Kirkpatrick Architecture Studio for Architectural and Design services relating to the Hickory Substation Gas Insulated Substation (GIS) Equipment Building and Screening Wall, and the Eagle Substation Gas Insulated Substation Equipment Building in the not-to-exceed amount of $616,700.

PRINCIPAL PLACE OF BUSINESS

Kirkpatrick Architecture Studio
Denton, TX

ESTIMATED SCHEDULE OF PROJECT

Services to be performed will begin upon Council approval and will continue until the completion of the project as defined in the Professional Services Agreement.

FISCAL INFORMATION

The cost for services purchased under the proposed agreement will be funded from Capital Improvement Project account 603234500.1360.3530 for the Hickory Substation and 603200500.1360.3530 for the Eagle Substation. The design costs for the GIS buildings and a portion of the cost for the Hickory Substation screening wall will be in the transmission category. The project costs that are in the transmission category will ultimately be recovered through the Public Utility Commission transmission cost of service program (TCOS).

STRATEGIC PLAN RELATIONSHIP

The City of Denton's Strategic Plan is an action-oriented road map that will help the City achieve its vision. The foundation for the plan is the five long-term Key Focus Areas (KFA): Organizational Excellence; Public Infrastructure; Economic Development; Safe, Livable, and Family-Friendly Community; and Sustainability and Environmental Stewardship. While individual items may support multiple KFAs, this specific City Council agenda item contributes most directly to the following KFA and goal:

Related Key Focus Area: **Organizational Excellence**
Related Goal: **2.3 Promote superior utility services and facilities**

EXHIBITS

Exhibit 1: Agenda Information Sheet
Exhibit 2: Site Concept Plan
Exhibit 3: Screening Wall Concept
Exhibit 4: Public Utilities Board Minutes
Exhibit 5: Ordinance

Respectfully submitted:
Galen Gillum, 349-7656
Director of Capital Projects

For information concerning this acquisition, contact: Chuck Sears at 349-7111.