



CITY OF TEMPE
REQUEST FOR COUNCIL ACTION

Council Meeting Date: 03/17/2016
Agenda Item: 6A2

ACTION: Award a construction contract to D.L. Withers Construction, LC and a professional services consultant contract to bo Arch, LLC for heating, ventilation, and air conditioning improvements at the East Valley Bus Operations and Maintenance Facility at 2050 West Rio Salado Parkway.

FISCAL IMPACT: The construction contract amount is \$1,749,600, the professional services contract amount is \$92,000, and the project contingency amount is \$175,000. Transit has appropriated \$1,400,000 for fiscal year 2015/16 and \$617,000 in fiscal year 2016/17 in Capital Improvement Project No. 6006089, Transit Facility Asset Maintenance to fund contract costs. A Federal Grant (AZ-90-X124) in the amount of \$250,000 has been awarded to the project with the remaining funding source allocated from Transit Tax.

RECOMMENDATION: Award construction and professional services contracts.

BACKGROUND INFORMATION:

Project History:

The East Valley Bus Operations and Maintenance Facility (EVBOM) campus built in 2007, includes administration, maintenance, and fueling buildings for transit operations as well as parking spaces, storage, and wash bays for transit vehicles and equipment. The facility, designed in the early 2000s, was designed to meet LEED standards for energy efficiency and environmental design to minimize energy consumption, conserve natural resources and utilize recycled materials. Additionally, new products and processes were employed to help reduce operations and maintenance costs. Initially designed to operate 24/7 and maintain a transit fleet of 250 buses with a corresponding workforce, EVBOM operated initially supporting less than 200 buses. Over the last three years with regionalization, the facility began operating at maximum capacity with an increase in the overall workforce.

The maintenance of the facility follows a regimented and defined process to comply with OEM standards and with federal facility maintenance frequency and standards. As the facility continues to age, it has become apparent that some of the environmental systems designed as part of the energy efficiency and conservation standards are not operating as effectively as intended. When the system was designed, underfloor air distribution system was a key component of the LEED design criteria.

In order to gain a better understating of the deficiencies after continued difficulty keeping temperatures at appropriate levels, an HVAC system assessment was conducted in 2014 to evaluate heating, cooling, air flow, and ventilation in the three buildings. The study identified the need for improvements to modify ventilation, ductwork, controls, heat pump, and condensing units to provide a more efficient and well distributed system of heating and cooling. The original HVAC system was designed within acceptable limits but tended to be at the high end of those limits. As time passed it was found that achieving the system air balance was very challenging. The system did not provide sufficient air flow to all parts of the building and recently required the use of temporary cooling units in portions of the Administration building to maintain comfortable temperatures.

In addition, the energy management systems no longer function as designed and some systems are no longer supported by manufacturers making it difficult to repair the initially designed system. Due to Federal funding requirements, some systems were not consistent with city standards. As a result it was found that there were not only issues with proprietary system controllers being problematic overall, but the communication between the controllers and the front end computer was another issue that was inconsistent and unreliable. The expertise to properly repair and maintain the system is not readily available, and parts are becoming sparse. Technology based components of EVBOM, like the computer based building system controls and sensors are improving at a fast pace and older models are discontinued and go unsupported by manufacturers. Computer hardware and sensors specified 10 years ago and purchased and installed at EVBOM 8 years ago are no longer sold, are obsolete and are now un-supported by manufacturers.

Technology advances also affect service and fleet vehicles used. While EVBOM was designed to accommodate the operation and maintenance of natural gas vehicles, building codes for heating and air monitoring are quite precise and are continuously evolving and must be followed to provide a safe environment for personnel. The air monitoring system warns of natural gas presence due to fuel system leaks on vehicles. The heating system needs to operate in the natural gas environment while preventing hazardous combustion. Both heating and air monitoring systems are being updated.

With an ever changing fleet, a maintenance bay that was not intended for natural gas is being retrofitted to accommodate the growing fleet of natural gas vehicles. While smaller natural gas vehicles were risky innovations earlier, the City now uses Compressed Natural Gas Orbit buses. The Orbit bus fleet has changed from gasoline fuel to CNG, and as such requires improvements not only for the EVBOM fueling facility but also for the service bays.

The award of this contract will correct and enhance HVAC performance and air quality monitoring deficiencies at the East Valley Bus Operations and Maintenance facility that resulted from nearly nine years of operation under LEED designed systems and processes that have not realized the intended performance and will install modifications to improve the proper and safe operation of the maintenance building used in the maintenance of natural gas vehicles.

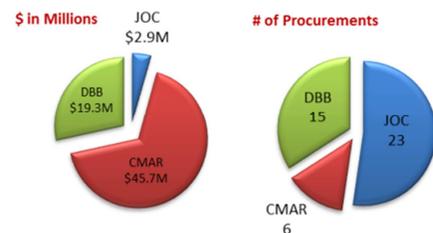
Contract Type: Design-bid-build construction contract

Procurement Method – Construction:

Design-Bid-Build (lowest responsible bid) was selected as the procurement method due to the standardized details, project timeline, and the ability to develop precise plans and specifications for construction of this project. The scope of work does not warrant the use of Job Order or Construction Manager at Risk construction services. The selection was based on the process set forth in A.R.S. § 34-201, et seq.

Staff is providing a snapshot of the City's current CIP construction activity by procurement method:

- CMAR – Construction Manager at Risk
- DBB – Design, Bid, Build (low-bid)
- JOC – Job Order Contract



Bids Received:

On January 26, 2016, the following bids were received:

D.L. Withers Construction, LC	\$1,749,600.00
Valwest Construction	\$2,076,000.00
RKS Plumbing & Mechanical, Inc.	\$2,527,000.00
RK Sanders, Inc.	non-responsive

Staff reviewed the bid of D.L. Withers Construction, LC, the lowest responsive bid, and found it to be in order. The selection was based on the process set forth in A.R.S. § 34-201, et seq.

Contract Type: Professional services consultant contract.

Procurement Method – On-call Consultant Short List:

bo Arch, LLC was selected from the Engineering Division's On-call Consultant Short List based on the scope of work for this project, their familiarity with the project, and the specific expertise required for successful completion of this work. The Short List is established using a qualifications based selection process, pursuant to Arizona Revised Statutes (ARS) § 34-103. This selection process includes evaluation of the firms who apply for each discipline based on the following selection criteria and relative weights (ARS prohibits the use of pricing as a criterion for this qualifications based process):

- 30% Overall capability and qualifications of the firm;
- 30% Relevant municipal project experience of the firm;
- 25% Qualifications and experience of the firm's key local staff, and;
- 15% Overall evaluation of the firm and its familiarity of local regulations.

Once bo Arch, LLC was selected from the Short List, staff worked with them to finalize the scope of work and negotiate the design fee. The proposed labor rates submitted by bo Arch, LLC were reviewed by staff and are consistent with industry standards.

Scope of Work – Construction Contract:

This construction project involves modifications and improvements to the EVBOM control system, air monitoring system and HVAC system in the administration, maintenance, and fuel buildings. The work is intended to improve efficiency in the overall operation of the systems by bringing them up to current design standards and codes. The control system includes the design for integration of an updated energy management system (EMS) along with all necessary hardware and computer interface which provides automated and manual operation for both the existing and new components of the HVAC and air monitoring safety systems. The project will also include back-up power for critical IT components.

The project contingency has been established at \$175,000, approximately ten percent (10%) of the construction contract amount, to cover possible unforeseen conditions during construction.

Scope of Work – Professional Services Consultant Contract:

The consultant will provide construction administration and inspection services including attendance at pre-construction meeting, review of contractor's schedule and work plan, verification of background checks and security protocol, coordination of project permitting, construction site visits and inspections, attendance at weekly progress meetings, preparation and distribution of meeting agenda and minutes, coordination of shop drawing reviews and test results, response to contractor's requests for information, coordination of the construction with the building operations and temporary relocation of offices and equipment, review of monthly construction pay requests, observation of system commissioning and obtaining results, and facilitating development of as-built record drawings.

ATTACHMENTS: Construction Contract (outreach efforts attachment A, special provisions, and technical specifications on file at the Engineering Division) and Professional Services Contract.

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