1. 5:30 P.M. ABLC Meeting Agenda November 8 2016

Documents:

NOVEMBER 8, 2016 MEETING AGENDA SD.PDF

CITY OF ANGLETON, TEXAS

ANGLETON BETTER LIVING CORPORATION

Meeting @ 5:30 p.m., Tuesday, November 8, 2016
Located at 120 S. Chenango in the Council Chambers,
Angleton, Texas 77515

1.) Declaration of Quorum and Call to Order.

2.) Discussion and Possible Action on approving the September 26, 2016 meeting minutes.

3.) Discussion and Possible Action on the Fee Proposal from CAI Consulting Engineers for the Recreation Center HVAC repairs.

4.) Adjourn.

In compliance with the Americans with Disabilities Act, the City of Angleton will provide reasonable accommodations for persons attending Angleton Better Living Corporation Meetings. To better serve you, requests should be received 24 hours prior to the meeting. Please contact Shelly Deisher, City Secretary, at 979-849-4364, extension 2115.

CERTIFICATION

I certify that copies of this agenda of items to be considered by the Angleton Better Living Corporation were posted in the following locations:

City Hall Bulletin Board: Date: _____ Time: _____

City of Angleton Website: Date: _____ Time: _____

_____
Shelly Deisher,
City Secretary

Angleton Better Living Corporation Meeting

City of Angleton, Texas
Meeting Minutes
Monday, September 26, 2016

MEMBERS & STAFF

Randy Rhyne – Chairman
Hardwick Bieri – Board Member
Bonnie Church – Board Member (Absent)
Dr. William Jackson – Board Member
Chris Peltier – Board Member
George Rau – Board Member (Absent)
Charlyn Rogers – Board Member (Absent)

Michael Stoldt – City Manager
Will Blackstock – Parks & Recreation Director
Susie Hernandez – Finance Director
Alyssa Deaton – Assistant City Secretary

AGENDA

1. Declaration of Quorum and Call to Order at **5:37pm**.

2. Discussion and Possible Action on approving the July 25, 2016 meeting minutes.

   Motion by Chris Peltier to approve the minutes;
   Second by William Jackson.

   Motion carries 4 for; 0 against; 3 absent (Bonnie Church, George Rau, Charlyn Rogers)

3. Discussion and Possible Action on selecting an engineering firm for the Angleton Recreation Center HVAC replacement.

   Will Blackstock, Parks & Rec Director, explained that they received two responses to the request for Statement of Qualifications. He stated both were very good, that he looked through them, scored them, and contacted references. Both were equal on what they could provide, but the biggest difference is that one is in Dallas and the other is in Houston. He recommended selecting the company in Houston (CIA) since they can be more readily available if needed rather than having to fly someone down.

Michael Stoldt, City Manager: You will notice there is no price for either one. Under state law we have to grade them on qualifications for engineering services, then negotiate the price.

Will Blackstock: If you can't reach an agreement with your most qualified, then you step down to the second most qualified. In this case, I feel like they are pretty evenly qualified for the job.

Members and staff discuss the new windstorm requirements for rooftop AC's and how they will utilize existing components to save cost.

Motion by Chris Peltier to approve the proposal from CIA engineering firm;
Second by William Jackson.

Motion carries 4 for; 0 against; 3 absent (Bonnie Church, George Rau, Charlyn Rogers)

4. Adjourned at **5:54pm**.

CERTIFICATION

Randy Rhyne, ABLC Chairman

Alyssa Deaton, Asst. City Secretary

ABLC
AGENDA ITEM
Meeting Date: November 8, 2016

SUBJECT: Discussion and Possible Action on the Fee Proposal from CAI Consulting Engineers for the Recreation Center HVAC repairs.

___ Consent item
_x_ Discussion and possible action
__ Discussion item
___ Public Hearing

REQUESTED BY: Will Blackstock, Parks & Recreation Director

Attachments: Proposal from CAI Engineers

Executive Summary: CAI Engineers submitted a proposal for the engineering work on the HVAC Replacement project at the Angleton Recreation Center.

They presented us with 2 options to choose from:

1. Replace Rooftop Units (RTUs) with new RTUs
2. Replace RTUs with new chilled water system

Option 1 will cost $41,640.00 in engineering and design fees and Option 2 will cost $75,480.00 in engineering and design fees.

Recommendation: Staff recommends accepting option 1 and authorizing CAI Engineers to proceed with developing specs and construction documents.

Will Blackstock — **November 1, 2016**
Name — **Date**

CAI CONSULTING ENGINEERS
10700 RICHMOND AVE., SUITE 145
HOUSTON, TX 77042
TEL: (713) 785-0334 • FAX: (713) 785-0309

October 27, 2016

Mr. Will Blackstock
Director of Parks and Recreation
City of Angleton
1601 N. Valderas
Angleton, Texas 77515

RE: CAI FEE PROPOSAL NO. 8428
MECHANICAL AND ELECTRICAL RENOVATION DESIGN SERVICES FOR ANGLETON RECREATION CENTER HVAC REPLACEMENT CITY OF ANGLETON

Dear Mr. Blackstock:

Per your request, we are submitting this brief proposal for the subject of ***"Angleton Recreation Center HVAC Replacement"*** mechanical and electrical renovation design services.

Assessment

The rooftop units under investigation are tagged as RTU-1 thru RTU-7 on the roof of the Recreation Center Building. The existing units are all *AAON* units. The following is a list of the equipment as surveyed:

- RTU-1 ERW: *AAON*, Model RK-30-3-F0-31M - 30-tons (Nominal)
- RTU-2 ERW: *AAON*, Model RK-30-3-F0-31M, Serial #200408-AKGS53249 - 30-tons (Nominal)
- RTU-3: *AAON*, Model RM-025-3-0AB22-349, Serial #200407-AMGR09877 - 25-tons (Nominal)
- RTU-4: *AAON*, Model RM-015-3-0-AB22-349, Serial #200406-AMGL09858 - 15-tons (Nominal)
- RTU-5: *AAON*, Model RM-010-3-0-A822-349, Serial #200408-AMGJ11007 - 10-tons (Nominal)
- RTU-6: *AAON*, Model RM-025-3-0-AB22-369, Serial #200408-AMGR09878 – 25 tons (Nominal)
- RTU-7: *AAON*, size could not be validated.

All of the above mentioned units were originally installed equipment. RTU-1ERW and RTU-2ERW are equipped with have Energy Recovery Wheels.

Upon visual inspection of the equipment, with the exception of RTU-6, it is clearly evident the condenser coils on all rooftop units are badly deteriorated. Various areas in the condenser coils sections have already become finless with copper tubes clearly exposed. A water sprinkler system was installed on units RTU-1 ERW and RTU-2 ERW to prevent the units from tripping due to hi-condensing pressure because of the failing condensers. Rooftop unit RTU-6 condenser coil was replaced last year and the unit, apparently, is in good working condition. The control system is proprietary and not accessible thru the WEB.

Recommendations

All existing rooftop units need to be replaced. Although, new roof curb adapters would be required, replacing the existing RTUs with new RTUs from the same manufacturer, *AAON*, would, to a great extent, maintain the existing roof curbs. This does provide the following advantage: 1) the air-conditioning systems' downtime due to the construction activities associated with the equipment replacements is minimized. Hence, specifying new units from the existing manufacturer will provide an advantage to the Owner; however, it will limit the Owner's options to only utilize the currently existing equipment manufacturer which will put the Owner at a disadvantage due to potential price fixing.

It would be of great benefit to the Owner to provide a system that can be sourced from several manufacturers where competition would keep the construction cost of the project under control. It is worth noting that since the roof structure would require re-evaluation to verify it can adequately support the new units, the use of equipment from other manufacturers can be evaluated as a replacement to the existing manufacturer. That said, due to *AAON's* unique compact footprint, new rooftop units from different manufacturers will most probably need to be mounted away from the existing roof curb. Furthermore, new roof-mounted supply and return air ductwork would be routed from these new units and connected to the ductwork in the existing curb openings. Although, this will increase the project cost, it will allow various manufacturers to bid on the project which would work in favor for the *Angleton Recreation Center*. This is true since this would surely compel *AAON* to provide a much more competitive bid knowing that they possibly have the advantage of utilizing the existing roof curbs for the new work.

As an alternate, the existing unitary rooftop packaged units system can be replaced with a new chilled water system. The new chilled water system would be comprised of (2) 80-ton air-cooled chillers, (2) end-suction type centrifugal pumps, a cold storage tank, and roof-mounted air-handling units. The chillers shall be located in the field behind the recreation center and chilled water piping shall be routed from the chiller plant to the roof-mounted air handling units. Piping shall be supported by pipe stanchions and wrapped with aluminum jacketing for protection against environmental conditions. Moreover, the air-cooled chillers can be specified with heat reclaim capabilities for pool heating purposes. To demonstrate, an air-cooled chiller produces chilled water while simultaneously transferring significant quantities of heat to the outdoors through its air-cooled condenser.

When this heat is captured and re-directed to a water-cooled condenser, the system could produce not only a controlled source of chilled water but also a significant amount of useful heat to generate hot water. However, when an air-cooled chiller is operating in the Heat Recovery mode, there must be a simultaneous need for chilled water and tempered hot water. It is important to note that the chiller will always maintain the specified leaving chilled water temperature. As a result, the chiller will produce as much hot water as possible while controlling the leaving chilled water temperature. The leaving hot water temperature is a by-product of the cooling cycle. Accordingly, since the Recreation Center typically requires the simultaneous use of chilled water for building air-conditioning and heating for its swimming pool heating purposes, then it is our belief that this would be a valid application for the use of heat reclaim chillers. Effectively, the chillers' condenser waste heat would be utilized to aid in the swimming pool's water heating requirements while the building is being air-conditioned. This would provide savings in the current gas utility bill. It should be pointed out that the heat from the reclaim chiller should not be utilized as the single or primary source of heating. This is true since in the cold winter months, the reduced need for chilled water production would certainly reduce the heating water production necessary to handle the swimming pool heating requirements.

One point worth mentioning is that the high concentrations of chlorine, bromine, and sodium chloride disinfectants can cause corrosion damage to the metallic components of the heat reclaim condenser. Hence, to avoid the corrosive effects of the pool water, the use of an intermediate heat exchanger with suitable corrosion resistant construction would help overcome this issue. Furthermore, the hot water from the heat reclaim chiller can also be used for zone reheat and to pre-heat the make-up domestic water.

The new replacement air conditioning system shall be provided with a new BACnet compliant direct digital control (DDC) system shall be utilized with access and control through the WEB. The system shall be able to control and monitor the equipment operation for optimum performance and alarms status reporting.

Whether new packaged rooftop units or new air-handling units would be utilized to replace the existing units, based on the condition of this current equipment, it is imperative that all new units have additional exterior coating to extend their service life. Moreover, all interior cooling coils shall be provided with special coating for protection against the prevalent corrosive environment.

Hence, two (2) proposals shall be provided. **Alternate I Proposal** would be to simply replace the existing RTUS with new units. **Alternate II Proposal** would be to replace the existing RTUs with a new chilled water system. The mechanical and electrical renovation design services shall be associated with replacing the existing aforementioned RTUs for improving system reliability at the *Angleton Recreation Center Building*.

The renovation and design work shall include the following:

1. Provide mechanical, electrical, and structural construction drawings for the roof area to show existing and new rooftop equipment. New equipment shall be equipped with built-in variable frequency drives. Supply and return air ductwork shall be routed thru the existing or new curb adapters to the new RTUs' supply and return air connections.
2. Work will involve site visits to investigate and field verify the existing A/C system equipment, and clearances to adjoining structures.
3. Construction Administration (CA) Services.

We are proposing the fee for the outlined scope of work for the building as shown in the attached *Engineering Staffing Proposal* spreadsheet. *The Angleton Recreation Center* must authorize all services beyond the scope of work and the Engineer shall be compensated for additional services with an hourly rate of $130.00, if required.

REIMBURSABLE EXPENSES

Reimbursable expenses will include Permit/Expediting Fees (if applicable), courier fees, printing/plotting fees, mileage cost, toll fees, and parking fees (if necessary).

INVOICES

Invoices will be sent upon submitting of progress design documents at each stage per submittal schedule. Payment shall be rendered within forty-five (45) days of receipt of proper invoice from CAI for services performed. If payment is not rendered within forty-five (45) days of invoice date, there will be a late charge equal to 1% of the amount due in accordance with Section 2251.026 of Texas Government Code.

Alternate I Proposal

Drawings	Payment
Investigative Survey and Background Preparation	$ 5,640.00
100% Construction Documents	$30,080.00
Prebid Services including Permit Review Process	$ 2,080.00
Construction Administration (CA) Services	$ 3,840.00
Total Engineering Fee for Alternate I Proposal	$41,640.00

CAI CONSULTING ENGINEERS

Alternate II Proposal

Drawings	Payment
Investigative Survey and Background Preparation	$ 8,960.00
100% Construction Documents	$58,520.00
Prebid Services including Permit Review Process	$ 2,080.00
Construction Administration (CA) Services	$ 5,920.00
Total Engineering Fee for Alternate II Proposal	$75,480.00

Therefore, we are proposing a maximum fee not to exceed $41,640.000 **(Alternate I Proposal)**, and $75,480.00 **(Alternate II Proposal)** for ***"Angleton Recreation Center HVAC Replacement"***, plus reimbursable expenses.

1. *The Angelton Recreation Center* shall provide the existing building's as-built MEP documents.
2. Telephone Equipment, Security, Fire Protection, Detection and Control, shall be by others.
3. *The Angleton Recreation Center* must authorize all services beyond the scope of work and the Engineer shall be compensated for additional engineering services with an hourly rate of $130.00, if required.
4. Fee proposal shall be based on a onetime 100% submittal with no intermediate submittals.

We thank you for the opportunity of submitting this proposal and we are looking forward to working with you soon.

Sincerely yours,

CAI ENGINEERS

Sam Jabon, P.E.
Vice President
Texas ID# F-5348
SJ/jr
Attachments: Engineering Staffing Proposal Spreadsheets for Alternate I and Alternate II

You are hereby authorized to proceed with the work as outlined. The Contract for Professional Services Agreement between City of Angleton Recreation Center, and Chien Associates, Inc., dba CAI Engineers shall govern all terms and conditions unless modified by the City of Angleton Recreation Center and mutually agreed to in writing. The option of mediation shall be applied in case of Contractual dispute.

Will Blackstock **Date**
Director of Parks and Recreation, City of Angelton

ENGINEERING
STAFFING PROPOSAL

ALTERNATE I

Owner: City of Angleton
Project. Description: Mechanical and Electrical Renovation Design Services for Angleton Recreation Center HVAC Replacement, City of Angleton, Texas

Date: 10/27/2016
CAI Proposal No. 8428
Contract Number -
Scope of Work: -

Engineer: CAI Engineers
10700 Richmond Ave., Suite 145
Houston, Texas 77042

Prepared By: Sam Jabori, P.E.

	Review Schedule	STAFF	Hourly Rate		HOURS		TOTAL LABOR
Phase I							
Investigative Survey And							
Background Preparation		PROJECT MANAGER/MECHANCIAL ENGR	$ 130.00	X	16	=	$ 2,080.00
		MECHANICAL CAD/DESIGNER	$ 80.00	X	40	=	$ 3,200.00
		CLERICAL	$ 45.00	X	8	=	$ 360.00
						Subtotal	**$ 5,640.00**
Phase II							
Construction Documents		PROJECT MANAGER/MECHANCIAL ENGR	$ 130.00	X	72	=	$ 9,360.00
		MECHANICAL CAD/DESIGNER	$ 80.00	X	144	=	$ 11,520.00
		STRUCTURAL ENGINEER	$ 125.00	X	24	=	$ 3,000.00
		STRUCTURAL CAD/DESIGNER	$ 80.00	X	40	=	$ 3,200.00
		ELECTRICAL ENGINEER	$ 125.00	X	8	=	$ 1,000.00
		ELECTRICAL CAD/DESIGNER	$ 80.00	X	16	=	$ 1,280.00
		CLERICAL	$ 45.00	X	16	=	$ 720.00
						Subtotal	**$ 30,080.00**
Phase III							
Prebid Services including		MECHANICAL ENGINEER	$ 130.00	X	16	=	$ 2,080.00
Permit Review Process						Subtotal	**$ 2,080.00**
Construction Administration		PROJECT MANAGER/MECHANICAL ENGR	$ 130.00	X	24	=	$ 3,120.00
(CA) Services		CLERICAL	$ 45.00	X	16	=	$ 720.00
						Subtotal	**$ 3,840.00**
						Grand Total	**$ 41,640.00**
Estimated Reimbursable		REIMBURSABLE EXPENSES WILL INCLUDE					
Expenses		PERMIT/EXPEDITING FEES (IF APPLICABLE),					
		COURIER FEES, PRINTING/PLOTTING FEES,					
		MILEAGE COST, TOLL FEES, AND PARKING					
		FEES (IF NECESSARY)				**Total Estimated Reimbursable Expenses**	**$ 3,000.00**
						Total Fee Proposed	**$ 44,640.00**

ENGINEERING
STAFFING PROPOSAL

ALTERNATE II

Owner: City of Angleton
Project. Description: Mechanical and Electrical Renovation Design Services for Angleton Recreation Center HVAC Replacement, City of Angleton, Texas

Date: 10/27/2016
CAI Proposal No. 8428
Contract Number -
Scope of Work: -

Engineer: CAI Engineers
10700 Richmond Ave., Suite 145
Houston, Texas 77042

Prepared By: Sam Jabori, P.E.

	Review Schedule	STAFF	Hourly Rate		HOURS		TOTAL LABOR
Phase I							
Investigative Survey And							
Background Preparation		PROJECT MANAGER/MECHANCIAL ENGR	$ 130.00	X	24	=	$ 3,120.00
		MECHANICAL CAD/DESIGNER	$ 80.00	X	40	=	$ 3,200.00
		ELECTRICAL ENGINEER	$ 125.00	X	8	=	$ 1,000.00
		ELECTRICAL CAD/DESIGNER	$ 80.00	X	16	=	$ 1,280.00
		CLERICAL	$ 45.00	X	8	=	$ 360.00
						Subtotal	**$ 8,960.00**
Phase II							
Construction Documents		PROJECT MANAGER/MECHANCIAL ENGR	$ 130.00	X	144	=	$ 18,720.00
		MECHANICAL CAD/DESIGNER	$ 80.00	X	240	=	$ 19,200.00
		STRUCTURAL ENGINEER	$ 125.00	X	24	=	$ 3,000.00
		STRUCTURAL CAD/DESIGNER	$ 80.00	X	40	=	$ 3,200.00
		ELECTRICAL ENGINEER	$ 125.00	X	48	=	$ 6,000.00
		ELECTRICAL CAD/DESIGNER	$ 80.00	X	96	=	$ 7,680.00
		CLERICAL	$ 45.00	X	16	=	$ 720.00
						Subtotal	**$ 58,520.00**
Phase III							
Prebid Services including		MECHANICAL ENGINEER	$ 130.00	X	16	=	$ 2,080.00
Permit Review Process						Subtotal	**$ 2,080.00**
Construction Administration		PROJECT MANAGER/MECHANICAL ENGR	$ 130.00	X	40	=	$ 5,200.00
(CA) Services		CLERICAL	$ 45.00	X	16	=	$ 720.00
						Subtotal	**$ 5,920.00**
						Grand Total	**$ 75,480.00**
Estimated Reimbursable		REIMBURSABLE EXPENSES WILL INCLUDE					
Expenses		PERMIT/EXPEDITING FEES (IF APPLICABLE),					
		COURIER FEES, PRINTING/PLOTTING FEES,					
		MILEAGE COST, TOLL FEES, AND PARKING					
		FEES (IF NECESSARY)				**Total Estimated Reimbursable Expenses**	**$ 4,000.00**
						Total Fee Proposed	**$ 79,480.00**