CITY OF COFFEYVILLE
BOARD OF COMMISSIONERS AGENDA ITEM

MEETING DATE	January 26, 2016	
RESOLUTION OR ORDINANCE NUMBER	R-16-02	
AGENDA TITLE	**A Resolution to authorize execution of a Construction Contract with Home Center Construction, Inc. for construction of a Chlorine Booster Station for the Water Utility.**	
REQUESTING DEPARTMENT	Public Works – Water Utility	
PRESENTER	Chuck Shively, Director of Public Works	
FISCAL INFORMATION	Cost as recommended:	$333,622.00
	Budget Line Item:	910-5-612-862
	Balance Available	N/A
	New Appropriation Required:	[ ] Yes [X] No
PURPOSE	To authorize a contract for construction of a Chlorine Booster Station for the Water Utility.	
BACKGROUND	For several years, the Coffeyville Water Utility has had trouble maintaining the required chlorine residual throughout our distribution system, especially in the summer, as have most water utilities. In order to meet the requirements, and insure that the water is safe to drink, we have been forced to flush water regularly from fire hydrants. While in most instances this practice is effective, it is very wasteful of both the water and the chemicals used to treat the water, which are not cheap. The reasons for the increasing struggle to maintain the chlorine residual are many. Some of the main reasons include the fact that until the 1990's we disinfected the water with straight chlorine, but EPA determined that when chlorine mixes with some naturally occurring material in river water it produces byproducts that, in their opinion, may have the potential to cause cancer over many years. So, we began adding ammonia to the water which changes the chlorine to chloramine.	

BACKGROUND (CONTINUED)	Chloramine does not produce the potentially carcinogenic byproducts, but on the other hand, it does not disinfect as well as chlorine. So, we increased the amount of disinfectant used to maintain the residual and insure that the water is safe to drink. Then, in recent years, EPA and KDHE have reduced the allowable concentration of disinfectant that we can have in the water when it enters the distribution system, but we are still required to maintain the same minimum disinfectant residual to the far points of the water distribution system. So, over the last couple of decades we have been forced by federal mandates to change to a weaker disinfectant entering the distribution system at a lower concentration, while still being required to maintain the same minimum disinfectant residual level throughout the entire water distribution system. To compound these issues, which most surface water systems have, Coffeyville has a unique situation which most other systems would love to have. Our forefathers in Coffeyville invested large amounts of money to provide us with three underground water storage reservoirs located at the highest point in town, so that they can gravity flow drinking water into the distribution system. Those three reservoirs total 9 million gallons of treated water storage capacity, ready to go into the system when needed. Under normal use, 9 million gallons provides us with approximately 4-5 days of water supply in the event of an emergency or problems at the plant. Most cities feel lucky to have a 1 day supply. Some only have hours available. But that storage capacity is a double edged sword. As the water slowly travels through the reservoirs it loses disinfectant residual before it enters the distribution system, especially in the summer. At the Water Treatment Plant, some of the finished drinking water is pumped directly to town while the rest is pumped up the hill to the storage reservoirs. Since some is pumped to town without ever going into the reservoirs, the disinfectant concentration cannot exceed the maximum allowable concentration when it leaves the plant, despite the fact that the water going through the reservoirs loses some of its concentration before entering the distribution system. So, currently our only options are to flush hydrants to move the water more quickly through the reservoirs, which is expensive and wasteful, or to take one or more of the reservoirs off-line, so that only a portion of our capacity is in use, which contradicts the efforts and expenditures of our forefathers and gives less time to react and make repairs before we run out of water in an emergency situation.
SPECIAL NOTES	N/A

ANALYSIS	A third option is to re-chlorinate the water as it leaves the reservoirs, boosting the disinfectant residual back up near the maximum safe allowable concentration as it enters the distribution system. This option would require construction and installation of controls and equipment to accurately increase the disinfectant level in the water to the appropriate concentration. This option would give us much better control of the water quality and safety at the point where it enters the distribution system. Over the past few years, City staff has been working with our engineers to develop the best and most cost efficient plan to accomplish the re-chlorination in a manner acceptable to KDHE. Over that time we have also been accumulating money in our Water Utility Capital Improvement Fund for this project. We now have the funds available to construct the chlorine booster station without borrowing money to pay for it. We worked with our engineer to develop the plans and specifications, which have been reviewed and approved by KDHE. We advertised for bids, and on December 8, 2015 the bids were opened. Attached to this staff report is a tabulation of the bids received and a copy of our engineer's recommendation of award. The project was bid with a prefabricated building or alternately with a site-built building. We believe the site-built building will be more usable in the future and will look much better at the entrance to Pfister Park than a prefabricated building. The bid for the site-built building is $3,000 more than the prefabricated building, but we believe that is a very small increase in the overall project cost, and is justified for the reasons previously listed.
PUBLIC INFORMATION PROCESS	N/A
BOARD OR COMMISSION RECOMMENDATION	N/A
STAFF RECOMMENDATION	Therefore, staff recommends award of the Water Distribution System Chlorine Booster Station Alternate Bid to the low bidder, Home Center Construction, Inc. of Pittsburg, Kansas, in the amount of $333,622.00.
REFERENCE DOCUMENTS ATTACHED	➢ Tabulation of bids received. ➢ Engineer's recommendation of award.

RESOLUTION NO. R-16-02

A RESOLUTION TO AUTHORIZE THE EXECUTION OF A CONTRACT WITH HOME CENTER CONSTRUCTION, INC. FOR CONSTRUCTION OF A CHLORINE BOOSTER STATION FOR THE CITY OF COFFEYVILLE WATER UTILITY.

BE IT RESOLVED by the Board of Commissioners of the City of Coffeyville, Kansas that the Mayor and City Clerk be and are hereby authorized and directed to execute a contract with Home Center Construction, Inc. for construction of a Chlorine Booster Station for the City of Coffeyville Water Utility in the amount of $333,622.00.

ADOPTED THIS 26TH DAY OF JANUARY 2016.

_____
Christopher V. Williams, Mayor

ATTEST:

_____
Cindy Price, City Clerk

APPROVED AS TO FORM AND LEGALITY:

_____
Paul Kritz, City Attorney

ALLGEIER, MARTIN and ASSOCIATES, INC.
Consulting Engineers
7231 East 24th Street | Joplin, MO 64804

Water Distribution System Chlorine Booster Station | Coffeyville, Kansas

December 8, 2015 at 2:00 p.m.

			Home Center Construction, Inc. Pittsburg, KS		Utility Contractors, Inc. Wichita, KS	
Item No.	**No. of Units**	**Description**	**Unit Price**	**Extended Total**	**Unit Price**	**Extended Total**
1	515 LF	2" Dia. PVC Water Line	$21.80	$11,227.00	$23.74	$12,226.10
2	LF	Connect to Existing 8" Dia. Water Line		$8,600.00		$1,832.00
3	LS	Connect to Existing 30" Dia. Water Line		$8,900.00		$3,474.00
4	LS	Proposed Access Manhole		$20,000.00		$30,337.00
5	LS	All On-Site Electrical Work		$12,150.00		$8,147.00
6	LS	Magnetic Flow Meter		$18,550.00		$15,425.00
7	LS	SCADA System		$41,095.00		$62,864.00
8	LS	All Site Work		$14,100.00		$25,153.00
9	LS	Packaged Booster Chlorination Station		$196,000.00		$234,042.00
		TOTAL BASE BID AMOUNT		**$330,622.00**		**$393,500.10** *
ALTERNATE BID						
A-1	515 LF	2" Dia. PVC Water Line	$21.80	$11,227.00	$23.74	$12,226.10
A-2	LS	Connect to Existing 8" Dia. Water Line		$8,600.00		$1,832.00
A-3	LS	Connect to Existing 30" Dia. Water Line		$8,900.00		$3,474.00
A-4	LS	Proposed Access Manhole		$20,000.00		$30,337.00
A-5	LS	All On-Site Electrical Work		$12,150.00		$8,147.00
A-6	LS	Magnetic Flow Meter		$18,550.00		$15,425.00
A-7	LS	SCADA System		$41,095.00		$67,667.00
A-8	LS	All Site Work		$14,100.00		$24,865.00
A-9	LS	Booster Chorination Station		$199,000.00		$318,241.00
		TOTAL ALTERNATE BID AMOUNT		**$333,622.00**		**$482,214.10**

*Mathematical Error

This is to certify that at 2:00 p.m. on December 08, 2015 at the City of Coffeyville, KS, 11 East 2nd Street, Coffeyville, KS the bids were publicly opened, read aloud, checked, and the above totals are correct as to the additions and the bids were accompanied by acceptable bidder's bonds.

By _____
John Briggs, P.E.

ALLGEIER, MARTIN and ASSOCIATES, INC.
Consulting Engineers

December 17, 2015

Mr. Chuck Shively, Public Works Director
City of Coffeyville
PO Box 1629
Coffeyville, KS 67337

Re: Water Distribution System Booster Chlorination Station
Coffeyville, Kansas

Dear Mr. Shively:

The bids submitted December 8, 2015 on the above referenced project have been reviewed and confirmed Home Center Construction, Inc., of Pittsburg, Kansas as the apparent low bidder for the Base Bid and the Alternate Bid project. Home Center Constriction has indicated that they intend to enter into a contract with the City to build the Alternate Bid project and they appear to be capable of obtaining all necessary bonds and insurance, and performing the work specified.

Although the bid amount for the construction of the on-site booster chlorination facility (Alternate Bid) is slightly higher than the bid amount for the prefabricated facility (Base Bid), it is our recommendation that the City award the Alternate Bid construction contract to Home Center Construction in the amount of $333,622.00. Construction of the on-site facility will give the City more flexibility during and after construction for upgrading or downgrading any of the specified materials or equipment or adding onto the building.

If the City concurs with this recommendation, please fully execute all three copies of the Notice of Award and return all copies to our office. Once we receive the partially executed copies of the Notice of Award from the City, we will submit contract documents to the Contractor for execution and schedule a project preconstruction conference. If you have any questions, please don't hesitate to contact me.

Sincerely,

ALLGEIER, MARTIN and ASSOCIATES, INC.

John Briggs, P.E.

Enclosures