

**COUNCIL ACTION FORM**

**SUBJECT: CONSTRUCTION OF NEW WATER TREATMENT PLANT – CONTRACT 2**

**BACKGROUND:**

Construction of the new water plant will be performed under two separate construction contracts. Contract 1 includes the interconnecting piping between the old and new treatment plant locations, and Contract 2 includes construction of the actual treatment facilities. Contract 1 will be bid later in 2014. On August 12, 2014, Council approved plans and specifications and issued a Notice to Bidders for Contract 2 to construct the new 15 million gallon per day (MGD) water treatment plant.

The base bid included construction of the treatment facility. Bid Alternate A proposed to use painted carbon steel instead of the specified stainless steel for the Solids Contact Units (SCU). Bid Alternate B was to provide an alternate carbon dioxide feed system.

On September 24, 2014, project bids were opened. Four bids were received and are summarized below:

<b>Contractor</b>	<b>Base Bid – Lump Sum Bid Price</b>	<b>Alternate A – Deduct for carbon steel material for SCU</b>	<b>Alternate B – Add/Deduct to furnish and install BlueInGreen Carbon Dioxide system</b>
Knutson Construction Services, Inc.	\$52,497,000	Deduct: \$137,000	Add: \$33,000
Williams Brothers Construction, Inc.	\$54,200,000	Deduct: \$150,000	Add: \$50,000
<b>Engineer’s Estimate</b>	<b>\$55,564,000</b>	--	--
Gridor Construction, Inc.	\$62,180,000	Deduct: \$1,000	Add: \$20,000
MWH Contractors, Inc.	\$63,408,288	Deduct: \$88,474	Add: \$176,000

Alternate A: During the design process, staff performed a life-cycle cost analysis for constructing the Solids Contact Units (SCU’s) out of painted carbon steel versus unpainted stainless steel. The capital cost of the stainless steel option was believed to be approximately \$1,000,000 higher; but over the next 50 years would result in a savings of \$1,700,000 (or a net savings of \$700,000) from not needing to repaint the units every 15-20 years. Staff chose to include the higher cost stainless steel option in the base bid, but wanted to obtain firm pricing on the carbon steel option to ensure the anticipated life cycle savings would be realized. The actual bid deductions offered by all four bidders were substantially less than anticipated; meaning the life cycle cost savings

from using stainless steel SCU's is even greater than staff had projected. Based on that analysis, **it is recommended that Bid Alternate A be rejected.**

Alternate B: The preliminary bid package included just one manufacturer for the carbon dioxide feed system. At the onset of the bidding phase, staff and the City's consultants became concerned about the cost of that system, based on the final non-binding quotation provided by the manufacturer. Staff went back and re-evaluated another manufacturer whose system had been previously rejected due to having a very small installation history. Staff visited a facility that had recently installed this second system and determined that, while less desirable than the base bid system, the second system could be acceptable if there was an adequate cost deduction available for that system. An addendum to the bid package was issued that allowed the second system to be proposed as an alternate. Staff and the City's consultant were anticipating a cost deduction of approximately \$50,000. When the bids were opened, however, all of the bidders actually proposed an increased cost for the alternate system. Since the system included in the base bid was the system preferred by staff, and since it would actually cost more to select the alternate system, **it is recommended that Bid Alternate B be rejected.**

**After reviewing the bids, staff recommends award of the base bid to Knutson Construction Services in the amount of \$52,497,000. Since the engineer's Opinion of Probable Construction Cost for Contract 2 was \$55,564,000, Knutson Construction's bid is \$3,067,000 below the engineer's estimate.**

Funding for the project will be through a low-interest loan from the Drinking Water State Revolving Fund, with repayment of the loan coming from users fees generated from the City's Water rates. As a result, the Iowa Department of Natural Resources must "concur" with the contract award. The project also has been awarded a loan forgiveness of approximately \$6,224,000 for constructing the facility to a LEED certified standard.

Substantial completion on the project is expected in the summer of 2017.

### **ALTERNATIVES:**

1. Award the base bid contract for construction of the City's new water treatment plant to Knutson Construction Services, Inc. of Minneapolis, MN in the amount of \$52,497,000.
2. Direct staff to accept one of the other bids received. Justification for accepting another bid must be provided to the Iowa DNR in order to obtain their concurrence and preserve the SRF funding for the project.
3. Reject all bids.

**MANAGER'S RECOMMENDED ACTION:**

Expansion of the treatment capacity of the City's Water Plant first appeared in the 2007-2012 Capital Improvements Plan. This is a project that is exceptionally important for the long-term vitality of the Ames community, both in terms of increasing the capability of the utility to meet growing demands, as well as to improve the redundancy and reliability of the treatment process.

The lowest responsive, responsible bid was received from Knutson Construction Services in an amount that was \$3,067,000 (5.5%) below the Engineer's estimate. Staff and the City's consultants have reviewed the qualifications of Knutson Construction and are comfortable that they have the expertise and capability to perform the work.

**Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby awarding the base bid contract to Knutson Construction Services, Inc. of Minneapolis, MN in the amount of \$52,497,000.**

October 8, 2014

**Mayor & City Council**

City of Ames

City Hall

515 Clark Avenue

Ames, IA 50010

RE: Ames Water Treatment Plant – Contract 2  
FOX P.N. 3338-12A.700

Dear Mayor and City Council

The City of Ames received bids on September 24, 2014 for the Water Treatment Plant – Contract 2 project. The project consists of two new buildings, one for housing the new water treatment processes, maintenance, and administration facilities. The second building is for temporary storage and lime sludge pumping to the existing lime ponds. Other improvements include emergency standby power and substantial site work.

The City received four (4) bids on the project. The Engineer's opinion of probable construction cost was \$55,564,000. The bids ranged from a high of \$63,408,288.00 to a low bid of \$52,497,000.00. A Bid Tabulation Summary is enclosed for your reference.

Knutson Construction Services, Inc. of Minneapolis, MN submitted the low bid of \$52,497,000.00. The low bid is \$3,103,000 below the Engineer's Opinion (5.6% below the Engineer's Opinion). One other bid was received that was just \$1.7 million higher (3%) than Knutson. Knutson's bid also included a deduct of \$137,000.00 for Alternate A – Deduct for Carbon Steel Material for SCU Equipment and an add of \$33,000.00 for Alternate B - Furnishing and Installing a BlueInGreen Carbon Dioxide System.

The consideration of these Alternates between the four bids does not change the apparent low bidder. In addition, FOX Engineering does not recommend accepting these alternates. The savings from Alternate A today would be lost to an increase in future maintenance costs. The Base Bid equipment is preferred to that proposed in Alternate B.

Knutson Construction has reviewed their Bid and found no errors or omissions in their proposal. We also discussed their current project work load and they have availability to complete this work. They anticipate starting work as soon as practical (perhaps mid-to-late November).

A detailed questionnaire was presented to the Contractor for completion. From this, we believe Knutson Construction has a practical knowledge of the work, adequate equipment, necessary supervisory personnel and financial resources to complete the work. Recent projects of similar size

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to Ames include a wastewater plant expansion in St. Cloud, MN in 2010. The proposed superintendent was involved with the Iowa City Water Treatment Plan constructed about 10 years ago.

Therefore, FOX recommends that the Water Treatment Plant – Contract 2 project be awarded to Knutson Construction Services, Inc. for their Total Bid of \$52,497,000.00. We believe this represents the lowest responsive, responsible bid for the project. Prior to the City of Ames approving the contract, the City's insurance counsel should review the contractor's insurance certificates and performance and maintenance bonds for conformance with the City of Ames' requirements.

Please contact us with any questions or comments regarding this recommendation.

Sincerely,



Lance Aldrich, P.E.  
Principal

*Enclosures: Bid Tab*

*CC: John Lewis  
Knutson Construction Services, Inc.  
7515 Wayzata Blvd  
Minneapolis, MN 55426*

CITY OF AMES, IOWA	5% Bid Bond	Contractor's Iowa Registration No.	Bidder Status Form	Addenda 1, 2, & 3	Lump Sum Bid Price for Base Bid:	ALTERNATE A - Deduct for Carbon Steel Material for SCU Equipment:	ALTERNATE B - Add/Deduct for Furnishing and installing a BlueInGreen Carbon Dioxide System:	Ajustment Bid Price No. 1 for Subgrade Stabilization:	Ajustment Bid Price No. 2 for Maintenance and Restoration of Lime Pond Access Road:
Mike Adair, Procurement Specialist II Ph: 515-239-5125 * Fax: 515-239-5325									
BID NO. 2014-120									
Ames Water Treatment Plant Contract 2									
BIDDERS									
Knutson Construction Services, Inc.	Yes	Yes	Yes	Yes	\$52,497,000.00	\$137,000.00	Add: \$33,000.00	\$37.00	\$25.00
Williams Brothers Construction Inc.	Yes	Yes	Yes	Yes	\$54,200,000.00	\$150,000.00	Add: \$50,000.00	\$40.00	\$40.00
Gridor Construction, Inc.	Yes	Yes	Yes	Yes	\$62,180,000.00	\$1,000.00	Add: \$20,000.00	\$42.00	\$24.00
MWH Contractors, Inc.	Yes	Yes	Yes	Yes	\$63,408,288.00	\$88,474.00	Add: \$176,000.00	\$37.00	\$25.00