

VEENSTRA & KIMM, INC.
3000 Westown Parkway • West Des Moines, Iowa 50266-1320
515-225-8000 • 515-225-7848(FAX) • 800-241-8000(WATS)

August 17, 2011

Roger Kirby, Director
Water Pollution Control Plant
City of Muscatine
1202 Musser Street
Muscatine, Iowa 52761

MUSCATINE, IOWA
WATER POLLUTION CONTROL PLANT IMPROVEMENTS
PROJECT COST SUMMARY

It is anticipated the construction of the Water Pollution Control Plant Improvements project will be completed within the next 30 days to 60 days. This letter is to provide a summary of the projected final cost of the project, including the construction contract and engineering services. The project cost summary provides background information as the City Council considers the final change orders and amendments for the project.

The original construction contract with Williams Brothers Construction, Inc. was \$15,780,000. The project cost projection prepared at the time of the award of contract suggested the City set aside \$150,000 as a contingency for changes that might occur during construction of the project. The project budget anticipated the City spending up to \$750,000 for the modification of the old digesters to sludge storage facilities.

Since 2008 there have been two changes that have an affect on the total cost of the project. First, the City has transitioned from 24 hour per day staffing of the facility to 12 hour per day staffing of the facility. Some additional monitoring changes have been incorporated in the project as the result of the change to less than full-time staffing. A more robust monitoring program is appropriate when the facility relies on the monitoring system during the periods when the facility is not actively staffed.

Second, the City is no longer pursuing the concept of modifying the old digesters to sludge storage. The estimated \$750,000 cost for the conversion was to be funded from the City's reserves.

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To date, the City of Muscatine has approved 7 change orders to the construction contract with Williams Brothers Construction, Inc. A summary of the amounts of the change orders is as follows:

Change Order No. 1	\$ -45,451.00
Change Order No. 2	56,568.00
Change Order No. 3	40,744.00
Change Order No. 4	-41,929.00
Change Order No. 5	29,601.00
Change Order No. 6	53,784.00
Change Order No. 7	<u>32,814.00</u>
Total	\$126,131.00

There are three outstanding issues that will affect the final project cost.

The first issue is Change Order No. 8. Change Order No. 8 incorporates a number of minor changes in the project. Change Order No. 8 has a total cost of \$46,790. This change order is to be considered by the Muscatine City Council at its meeting on August 18, 2011. With Change Order No. 8 the total change orders to the contract will increase to \$172,921.

There are two other issues outstanding with respect to the construction contract. The first issue is the construction contract period. The contract period expired on June 30, 2011. Williams Brothers Construction, Inc. has requested an extension of the contract period due to the impact of weather conditions during the initial part of the contract period. The above normal precipitation during the early part of the contract resulted in the contractor falling behind schedule.

City staff has expressed a willingness to grant a contract extension in order to provide the contractor time to complete the project in an orderly fashion. It is anticipated the extension will be until some date in September 2011. That date has not been determined at this time.

The issue of the contract extension will be addressed after the final date for completion has been established. The extension of the contract period does not directly affect the cost of the construction contract. The extension of the contract period does have the impact of increasing the engineering cost.

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The last issue related to the construction contract is a change order request related to modification of the dissolved air floatation unit. City staff is in agreement an additional cost should be forthcoming to the contractor. As of this date City staff and the contractor have not been able to reach agreement on the final cost. It is anticipated the cost will be somewhere between the City's projected cost of \$30,000 and the Contractor's request of \$49,000.

For purposes of the financial summary, the writer is assuming this change order will be in the amount of \$40,000. Assuming the \$40,000 for Change Order No. 9, the final amount of the change orders will be \$212,929, or 1.35% of the original contract amount.

This amount is slightly higher than the original target of \$150,000. Some of these changes are related to increasing the monitoring capability of the treatment plant and other changes are measures the City staff believed appropriate to incorporate in the project at this time.

The other issue the City will need to address is the cost for engineering services during construction. Because the contract period will extend longer than originally anticipated, an adjustment of engineering services would appear appropriate.

The first adjustment relates to inspection cost. The contract period was based on 30 months of construction with a maximum contract amount of \$360,000. It now appears the contract period will extend about 3 months beyond the original contract period. The rate of services for inspection over the contract period averaged about \$12,000 per month. Additional inspection costs of not more than \$25,000 are anticipated by the time the project is complete.

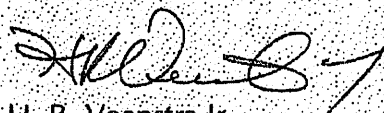
The second component of engineering is related to general services during construction. There are two items that affected general services during construction. City staff requested an evaluation of the fiber optics network. This cost was agreed to at \$10,000 with the understanding it would be incorporated in the contract by amendment when all of the final engineering costs have been established. Second, the contract period will extend beyond the original period. Also, there have been several smaller changes during the project that have required additional engineering analysis. The additional general services cost is estimated to be in the range of \$39,000.

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The projected cost for additional engineering services is in the range of \$64,000. When this amount is taken into consideration the total change during construction will be approximately \$276,921. This change will be funded from the City as part of its contribution to the project. The City anticipated about a \$900,000 contribution for unforeseen and deferred items. This included the \$150,000 contingency allowance and the \$750,000 cost for modification of the digesters.

If you have any questions or comments concerning the project, please contact the writer at 1-800-241-8000.

VEENSTRA & KIMM, INC.



H. R. Veenstra Jr.

20813



August 17, 2011

CHANGE ORDER NO. 8

MUSCATINE, IOWA
 WATER POLLUTION CONTROL PLANT IMPROVEMENTS

This change order is to document 13 modifications to the construction contract for the Water Pollution Control Plant Improvements. The modifications included in this change order are for additions and deletions of work to the contract. Compensation for the Contractor for each of the items is based on the Contractor's Proposal as reviewed, negotiated and approved. Modifications to the contract included in Change Order No. 8 are as shown on Attachment A.

Change Order No. 8 to the contract for the Water Pollution Control Plant Improvements provides for an increase of \$46,790 in contract price.

WILLIAMS BROS. CONSTRUCTION INC.

By Martin K. McLean

Title Project Manager

Date 8/20/11

VEENSTRA & KIMM, INC.

By James C. Lawrence

Title Project Manager

Date 8/17/11

CITY OF MUSCATINE, IOWA

By Richard W. Owen

Title Mayor

Date Aug 29, 2011

ATTEST:

By Jess Mink

Title City Clerk

Date 8/29/11

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AUG 20 2011

**WILLIAMS BROTHERS
CONSTRUCTION INC.**

BY: _____

ATTACHMENT A

CHANGE ORDER NO. 8

WATER POLLUTION CONTROL PLANT IMPROVEMENTS
MUSCATINE, IOWA

COST CHANGES

1. Provide two stainless steel angle supports at each of four digester mixer draft tubes for structural bracing, RFP No. 072. + \$3,592
2. Install the conduit and enclosures required to permit the future installation of Ethernet switches at Motor Control Centers 4, 5/7, and 1A/1B, RFP No. 073R. + \$2,583
3. Provide level floats for pump operation outside the PLC at five wetwells. Wire the float signals to the respective control panel. Modify the pump motor starters to incorporate the revised operating sequences, RFP No. 074. + \$29,800
4. Reduce the amount of demolition of the existing piping in the Digester Control Building in exchange for increasing the amount of demolition of the existing primary sludge pumps and piping, RFP No. 077. No Cost Change
5. Provide piping changes to incorporate a 3" stainless steel globe valve at the Dissolved Air Flotation Thickener No. 2, RFP No. 078R. + \$2,363
6. Provide a GFI breaker in Panel 12C to feed power to the flare control panel, RFP No. 081. + \$371
7. Reroute the drain lines from the air dissolving tubes to the existing plant drainage wetwell, RFP No. 083. + \$2,733
8. Delete the rock and edging and provide additional subgrade and asphalt paving south of the Anaerobic Digesters, RFP No. 084. + \$4,305
9. Modify the stair stringers to provide access to the roof of the Anaerobic Digester Building from the Anaerobic Digester mixer access platform, RFP No. 085. + \$1,112

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AUG 20 2011

**WILLIAMS BROTHERS
CONSTRUCTION INC.**




BY: _____

10.	Provide labeling and wiring of the Anaerobic Digester mixer switches to prohibit operation in the OFF position, RFP No. 087.	+\$444
11.	Locate the UV high level float switch under the stairs to avoid a tripping hazard, RFP No. 088.	+\$634
12.	Provide receptacles to the computer server uninterrupted power supply, RFP No. 089.	No Cost Change
13.	Provide a credit to compensate the City for the electrical power used by the contractor from January 1, 2011 through removal of the construction trailers and disconnection of all power supplies.	<u>-\$1,147</u>
	Total	\$46,790

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WILLIAMS BROTHERS
CONSTRUCTION INC.

BY: 



1202 Musser Street
Muscatine, IA 52761-1645
(563) 263-2752
Fax (563) 263-3720

WATER POLLUTION CONTROL

MEMORANDUM

To: Gregg Mandsager, City Administrator

From: Roger Kirby, Director WPCP

Date: August 17, 2011

Re: WPCP Plant Renovation Project Change Order # 8

INTRODUCTION: Attached is request for Change Order # 8 for our WPCP renovation project.. This change order provides for an increase of \$46,790 in the contract price.

BACKGROUND: There are a total of thirteen modifications included with this change order. Most of the current changes are related to our new SCADA system and getting feed back to our Operations Center to again to eliminate 24/7 staffing of the plant. This is especially true with Number 4 on the list which calls for level float backups in five different wet wells. Float backup is necessary to prevent flooding in case of a PLC failure. Number 7 on the list involves rerouting a drain line from our DAF system since it was running to sump pump not designed for that flow. Most of the other items are minor changes to provide safer access and easier maintenance for our operation.

RECOMMENDATION/RATIONALE: Staff recommends the city council accept this change order for \$46,790. Please include this item on the agenda for the August 18th Council Meeting.