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Commissioners
Dan Decker Michael Sutherland

TO: The Honorable Mayor and the City Council
THRU: Michael Sutherland, Commissioner of Public Property
FROM: Ric Semonski, Supervisor of Streets
DATE: January 7, 2020
SUBJECT: Waste Water Treatment Plant Change Order #2

DISCUSSION:

This change order #2 involves changes to 14 items from the original project parameters. These items are itemized and explained in the supporting documents.

These changes are approved by Farnsworth, Inc. (Engineers) and Brad Boulton (BCL Consulting)

RECOMMENDATION:

Approve Change Order #2 as described herein and attached in connection with the Waste Water Treatment Improvements Phase A, B and C in the amount of \$143, 976.00

RESOLUTION NO. 1920-101

East Peoria, Illinois

_____ , 2020

RESOLUTION BY COMMISSIONER _____

**RESOLUTION ACCEPTING SECOND CHANGE ORDER
FOR CITY'S SANITARY SEWER SYSTEM UPGRADE PROJECT
(PHASE A – C CONSTRUCTION PROJECT)**

WHEREAS, the City of East Peoria currently operates a combined waterworks and sewerage system, which includes a sanitary sewer system, in accordance with the provisions of Division 139 of Article 11 of the Illinois Municipal Code (65 ILCS 5/11-139-1 *et seq.*); and

WHEREAS, the City has previously awarded a contract to Williams Brothers Construction Inc. (the "Contractor") for the construction of Phases A – C of the Sanitary Sewer System Upgrade Project; and

WHEREAS, a second change order has been requested for the Project regarding numerous revisions to and for the Project (the "Change Order") in the amount of \$143,976.00, as described in "Exhibit A", attached hereto and incorporated herein by reference; and

WHEREAS, the Change Order has been reviewed and approved by the City's Project Engineer (Farnsworth), the City's Project consultant, and City Officials as being necessary improvements for the Project; and

WHEREAS, it is in the City's best interests to approve the Change Order for the betterment of the Sanitary Sewer System Upgrade Project;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF EAST PEORIA, TAZEWELL COUNTY, ILLINOIS, THAT:

Section 1. The above recitations are found to be true and correct and are incorporated herein.

Section 2. The Change Order for the Sanitary Sewer System Upgrade Project as set forth in Exhibit A in the amount of \$143,976.00 is hereby approved.

Section 3. The Mayor, or his designee, is hereby authorized to submit the proposed Change Order to the IEPA for approval and to execute any documentation necessary for the IEPA submission and review process.

Section 4. After receiving IEPA approval for the Change Order, the Mayor or his designee is authorized to execute any additional documentation required for effectuating the Change Order; provided, however, that the City shall have no obligation to the Contractor under this Resolution until such time as an executed Change Order has been delivered to the Contractor and IEPA approval has been obtained.

APPROVED:

Mayor

ATTEST:

City Clerk

RFPs and Change Order Summary for City of East Peoria WWTP Improvements Phase A, B and C

12/26/2019

RFP Number	Date	Description	Proposal Received	Proposal Amount	Negotiated Amount	Change Order Number
1	7/11/2019	461300 Blowers Contingency allowance reduction	08/26/19	(\$100,000.00)		1
		262923.2.1.B.1 Toshiba Drives and UL certification in Motor Control Centers		\$152,894.00	\$52,894.00	
		Total Change Order No.1				\$52,894.00
2R1		Supplemental Structural bracing below grade at the Rt. 8 PS	10/23/19	\$21,196.43	\$21,196.43	
		Demolition of existing 30 in. Buried Pipe and MH at the P3 Storm Basin upper shelf				
		Provision of 30 in Storm Basin Inlet Pipe				
		Field excavation of existng 16 in. FM for 30 in. bore casing alignment clearance determination		\$31,543.57	\$31,543.57	
		Temporary re-route P3 Effluent PS power in conflict with Chlorine Buiding		\$9,573.00	\$4,966.00	2
		Subtotal RFP 2R1		\$62,313.00	\$57,706.00	
3R3		Plant #3 Chlorination Basin drain Valves, Piping Revision and Sump Pump Assembly	12/9/2019	\$18,244.00	\$18,244.00	2
		Revision to Electric Power Supply requirement for makeup Air Units Bldg 12, 40, 47		\$7,457.00		
		Rte 8 delete Fiber conduit		(\$2,941.00)	\$4,516.00	
		Vactor Pad revisions for Storage, Containment and Equipment Access		\$10,070.00	\$10,070.00	
		Rte 8. Manholes over existing sewer for interconnect		\$74,953.00	\$6,790.00	
		Equipment Conveyor and support revision		(\$9,100.00)	(\$9,100.00)	
		Subtotal RFP3R3		\$98,683.00	\$30,520.00	
4		Storm Basin No. 1 Revisions	11/1/2019	\$64,756.00	\$56,474.00	2
5		Delete Stair Nosings Bldg 12,13,42,47,50	12/9/2019	(\$4,021.00)		2
		Add Interior Door Bldg 47 room 101		\$3,297.00	(\$724.00)	
		Total Change Order No. 2		\$225,028.00	\$143,976.00	\$143,976.00
6R1		Credit for Mag Meters and Submersible Level Transducers (in Phase D Contract)				3
		Delete One 6 in. Service Hydrant and Tee				
		Provide 3 ea, Flygt Mini Cass in Blower MCC for Future Effluent Pumps				
7	(pending)	Fiber Optic Equipment Scope Reductions				3

% of Construction

Original Contract	Lump Sum Base Bid	\$34,457,865.80
	Phase B Unit Price Base Bid Rte 8 Force Main	\$2,122,134.20
	Total	\$36,580,000.00

CO #1	\$52,894.00	0.14%
CO #2	\$143,976.00	0.39%

CO #3

0.00%

Total Change orders

\$196,870.00

0.54%

Current Contract

\$36,776,870.00

Loan Contingency

\$1,097,400.00

3.00%

Remaining Loan Contingency

\$900,530.00

2.46%

Date: / /2019

Owner: City of East Peoria
 Contractor: Williams Brothers Construction, Inc.
 Engineer: Farnsworth Group, Inc.
 Project: City of East Peoria, Wastewater Treatment Improvements Phase A, B and C

The Contract is modified as follows upon execution of this Change Order:

Description: See Attachment #1 – List of Change Order Items and Justifications

Attachments: See Attached RFP #002, #003R3, #004,# 005

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: \$ <u>36,580,000.00</u>	Original Contract Times: Calendar Days Substantial Completion: <u>540</u> Ready for Final Payment: <u>660</u> days or dates
[Increase] [] from previously approved Change Orders No. <u>1</u> to No. <u> </u> : \$ <u>52,894.00</u>	[Increase] [Decrease] from previously approved Change Orders No. <u> </u> to No. <u> </u> : Substantial Completion: <u>N/A</u> Ready for Final Payment: <u> </u> 0 days
Contract Price prior to this Change Order: \$ <u>36,632,894.00</u>	Contract Times prior to this Change Order: Substantial Completion: <u>540</u> Ready for Final Payment: <u>660</u> days
[Increase] [] of this Change Order: \$ <u>143,976.00</u>	[Increase] [] of this Change Order: Substantial Completion: <u>5 days</u> Ready for Final Payment: <u> </u> 5 days
Contract Price incorporating this Change Order: \$ <u>36,776,870.00</u>	Contract Times with all approved Change Orders: Substantial Completion: <u>545 1/20/2021</u> Ready for Final Payment: <u>665 5/20/2021</u>

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer	By: _____ Owner (Authorized	By: _____ Contractor (Authorized Signature)
Title: _____	Title _____	Title _____
Date: _____	Date _____	Date _____

ATTACHMENT #1

Change Order Items and Justification

RFP #2R1:

- a. Provision of supplemental structural bracing beams at the Rte. 8 Pump Station. Original structural steel reinforcement drawings for the existing below grade 1968 structure could not be located in the City records. Sections of existing flooring are being removed with necessary piping and other revisions to the structure. The bracing beams are amending the buried walls in one location for the unknown existing structural condition.
- b. A section of existing 30-inch Ductile Iron Pipe and an existing manhole conflict with field necessary over-excavation for the construction of the Plant #3 storm holding basin bentonite seal liner. Both were intended to be abandoned in place for cost savings but came into conflict when exposed at their existing installed grade during 2 ft. over-excavation for the intended basin bentonite liner/seal. The bentonite must be mixed into the soil. The pipes at existing grade conflicted with the lining operation. Very poor and continuously wet soils were encountered specifically in the area of and alignment of the existing pipes originally intended to be abandoned in place. Due to encountered field conditions, requiring additional over-excavation for the soils liner, they must be removed to avoid compromise the impermeable liner for the basin in that specific existing wet poor soils location.
- c. The existing 30 in sanitary pipe to the existing lagoon indicated on the drawings and intended for re-use could not be located in the field during the Storm Holding Basin expansion construction excavation. The pipe is necessary as the primary permanent inlet to the Storm Surge Holding Basin.
- d. Temporary relocation of existing buried power cable to the Plant 3 Effluent Pump station. The existing buried cables conflict directly with the concrete substructure of the Plant #3. Chlorination Building and Non-Potable Water Pump Station. Location of the buried utility was not known or in City record documentation.
- e. Potholing, vactoring and partial excavation of the existing aged 16 in. effluent forcemain at the terminal ends of the Cass St. bore indicated unknown alignment differing from available Owner record data. To determine if sufficient clearance exists between the existing pipe and the existing Cass St. Bridge abutments at the slough bridge, and other existing utilities including high pressure gas, excavation/exploration of the deep existing pipe at the SW bridge abutment was necessary (only possible location clear of existing utility services to allow installation of the bore and jack casing). This excavation required heavy equipment for location potholing and to avoiding re-alignment of the forcemain bore at significant additive cost and potential easement delay challenges.

RFP 003R3

- a. Per the operations staff, maintenance drain-down of the Chlorination Storm drain chlorination cell will occur contingent after storm flow occurrences. Maintenance cleaning or other drain down of the two WW chlorination cells will also be required. Deck level actuated drain valves and a drain down sump pump routed to the adjoining storm holding cell is requested/needed by the operations staff for safe maintenance practices and to reduce maintenance efforts and regular pump equipment hauling and set up by the single site/staff operator.

- b. The make up air units specified have higher amperage load requirements based on the received and approved shop drawings. The electric power supply wire to these units must be matched to the increased equipment load requirements.
- c. The existing Vactor pad constructed requires additional capture and volumetric holding and Owner requested access revision to match the City Internal and Commercial septic waste hauler loading requirements. A short added holding curb is needed with equipment access for cleaning of collected septage debris or for load out for dewatered Sludge storage needs/operations and to allow the ability to use the slab for Vactor septage collection or alternatively Dewatered Solids Storage in support of operations needs.
- d. Per the Owner and field investigation the existing deep and older Rte. 8 interconnect sewer, scheduled to be repurposed and structurally lined, is in fact routed to the existing 18 inch Fondulac sanitary trunk sewer on the South side of Rte. 8 with a tee connection, differing and not identified on record documents. The tee connection is unacceptable to allow lining of the existing 18 in. re-purposed sewer and violates gravity sewer design standards or typical municipal design code. One new Manhole constructed over the existing 18 in. trunk sewer with a pipe interconnect are required to; (1) allow structural lining of the existing re-purposed 18 in. sewer below Rte. 8; (2) amend the existing improper tee connection; and (3) allow maintenance and service access to both pipes and interconnects. At specific request of the Owner/Operator, revisions to the downstream existing Fondulac trunk sewer control structure are deleted and the existing structure internals shall remain as is.
- e. Specified buried Fiber conduits not needed. The local Fiber service provider will rout to the Pump Station Building.
- f. Shop drawing review evidenced viability for a single conveyor rather than two piggy backed series conveyors at this location reducing equipment cost and a conveyor support footing.

RFP #004:

1. During exploratory excavation of the perimeter wall at the Plant #1 Storm Basin #1 a large concrete block footing was discovered. The footing evidences a trench excavated and poured block and is of varying depth and width. The presence of this footing was not indicated on the Owner record drawings, nor was such encountered at the existing Storm Basin #2 during construction of the new perimeter basin wall at Basin #2. At the 10-29-2019 on site meeting it was by consensus (Owner, Engineer, Contractor) concluded the least cost adjustment to address this differing buried site condition is to reposition the proposed basin walls 2 ft. past the exterior perimeter of the existing wall. The benefit of the change does provide the Owner a larger basin, increasing storm storage which is a significant operational benefit. This RFP addresses additional concrete materials and partial (above grade only) demolition of the existing wall to accommodate this revision.

RFP #005:

1. Concurrent with site discussion with the operator it was determined the Aluminum stair nosing tread inserts will be deleted on cast in place concrete stairs due to constructability concerns for a cost savings.
2. A secondary interior egress door to the future chemical containment area/room is needed for operations.