



City of Gladstone, MI

1100 Delta Avenue
Gladstone, MI. 49837
www.gladstonemi.org

Staff Report

Agenda Date: July 10, 2023

Eric Buckman, City Manager: _____

Department: Wastewater

Department Head Name: Rodney Schwartz

Presenter: Rodney Schwartz

Kim Berry, City Clerk: _____

This form and any background material must be approved by the City Manager then delivered to the City Clerk by 4:00 PM the Tuesday prior to the Commission Meeting.

AGENDA ITEM TITLE: Change Order No. 5 for Wastewater Treatment Plant Improvements.

BACKGROUND: Change order is needed to make changes to the existing contract documents. See supporting documentation for description of work.

FISCAL EFFECT: \$57,379.00 decrease in contract price. This will decrease the current contract price from \$17,864,547.00 to \$17,759,259.00. Original contract price was \$17,743,000. (\$16,259.00 overall increase, 1.3% of contingency)

SUPPORTING DOCUMENTATION: Please see attached Change Order #5 from C2AE Engineering.

RECOMMENDATION: Make a motion to approve Change Order #5 as recommended by C2AE Engineering for a net decrease to the contract price of \$57,379.00.



Escanaba, MI Lansing, MI
 Gaylord, MI Canton, NY
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 P: 866.454.3923 www.c2ae.com

CHANGE ORDER #5

DATE OF ISSUANCE: **06/14/2023**

EFFECTIVE DATE: **Effective on Funding Agency Approval**

OWNER: City of Gladstone, MI
CONTRACTOR: Staab Construction Corporation
CONTRACT: SRF Project #5727-01
PROJECT: Gladstone MI, Wastewater Treatment Plant Improvements
OWNER'S CONTRACT NO. 21-0210
ARCHITECT/ENGINEER: C2AE, Escanaba & Lansing, MI

ARCHITECT/ENGINEER'S CONTRACT NO. 21-0210


You are directed to make the following changes in the Contract Documents:
 Description: **See Items Below**

Reason for Change Order: **See Items Below**

Attachments: Bulletin #8 with Contractor Change Order Requests B8.1-3 and B8.5-15, Contractor (Staab) quote dated 03/13/2023. Bulletin #10 with Contractor Change Order Requests B10.1-2, B10.6-9, Contractor (Staab) quote dated 04/07/2023. Work Change Directive (WCD) #6 dated 05/23/2023. Emails between Michael Faeth, C2AE and Chris Bever, Staab Construction dated 04/28/2023 and 05/03/2023.

CHANGE IN CONTRACT PRICE:
Original Contract Price: \$17,743,000.00
Net increase from previous Change Orders No.1 to No. 4: \$73,638.00
Contract Price prior to this Change Order: \$17,816,638.00
Net decrease of this Change Order: (\$57,379.00)
Contract Price with all approved Change Orders: \$17,759,259.00

CHANGE IN CONTRACT TIMES:
Original Contract Times: Substantial Completion: April 15, 2024 Ready for final payment: June 24, 2024
Net change from previous Change Orders No.1 to No. 4: Substantial Completion: None Ready for final payment: None
Contract Times prior to this Change Order: Substantial Completion: April 15, 2024 Ready for final payment: June 24, 2024
Net increase (decrease) this Change Order: Substantial Completion: None Ready for final payment: None
Contract Times with all approved Change Orders: Substantial Completion: None Ready for final payment: None

RECOMMENDED:
 By: 
 ARCH/ENSR (Authorized Signature)
 Date: **6-14-23**

APPROVED:
 By: _____
 OWNER (Authorized Signature)
 Date: _____

ACCEPTED:
 By: _____
 CONTRACTOR(Authorized Signature)
 Date: _____

EJCDC 1910-8-B (1996 Edition)
 Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specifications Institute.

Description:

1. Bulletin #8:

- a. B8.1 Revise boiler control panel location and add sludge pump controls. Relocate the Control Panel from where shown in the submittal to the opposite (water) side of the boiler. Add a Sludge Recirculation System Hands-Off-Auto Selector Switch to the face of the boiler control panel. The motor starters for these pumps will be remotely located and will be furnished and installed by others. The remote starter which is in the Auto Mode will function when signaled to run from the boiler control panel. Provide the following Sludge Recirculation Modes of Operation: Hand – When the sludge recirculation selector switch is in the Hand position, the pump will be called to run continuously. Auto – When the sludge recirculation selector switch is in the Auto position, the pump will be called to run when the setpoints on a 24 hour timer are enabled. The pump will run as long as the temperature of the sludge at the inlet to the remote heat exchanger is below the setpoint and the timer call to run is present. (A remote 4-20 mAdc sludge temperature signal will be provided from the WWTP SCADA system. The boiler control panel and the SCADA system signal inputs shall be connected in series. Boiler control panel signal input impedance shall not exceed 250 ohms.) Off – When the sludge recirculation selector switch is in the Off position, the pump will not run. Refer to Specification Section 44 7341 Dual Fired Sludge Boiler (not reissued) and to Shop Drawing Submittal No. 90.

Reason: The control panel will not meet code due to insufficient working clearance at the original/proposed location. Sludge recirculation and heating controls required to operate the system were not included in the original specification.

Increase the contract in the amount of:

\$7,842.00

- b. B8.2 Keep existing ¾" CW piping to existing sample sink and keep existing sample sink. Within the Eastern Pipe Gallery 006, do not demo existing cold water piping to sample sink and do not demo existing sample sink. Reconnect existing cold water piping to sample sink instead of routing new piping. Refer to Sheet PPD-201 and PPP-201 (reissued).

Reason: If the sink were to be removed there is currently no replacement. The replacement would be an additional cost.

Decrease the contract in the amount of:

(\$292.00)

- c. B8.3 Updated storm piping invert elevation for clarity. Also added relationship between plumbing elevation and civil elevations. Refer to Sheet PPW-201 and PPW-200 (reissued).

Reason: This change was meant to add clarity to the drawings.

Increase/Decrease the contract in the amount of:

\$0.00

- d. B8.5 Remove and cap existing exhaust fan. Remove existing exhaust fan above the Eastern Pipe Gallery and cap existing curb. Refer to Sheet MD-202 (reissued).

Reason: Existing exhaust fan was not shown on bidding documents. Fan is not required and shall be removed.

Increase the contract in the amount of:

\$200.00

- e. B8.6 Replace unit heater explosion proof thermostats. Replace ten (10) of the eighteen (18) unit heater thermostats with non-explosion proof versions. Eight (8) unit heater thermostats will remain as explosion proof. Refer to Sheet M-802 (reissued).

Reason: Ten (10) of the unit heaters are not within a classified space and do not require explosion proof thermostats.

Decrease the contract in the amount of:

(\$1,956.00)

- f. B8.7 Relocate gas water heater GWH-1, pump RCP-1 and the air compressor to Administration Closet 109. Refer to Sheets E-121, E-202, and E-801 (not reissued). On Sheet 202, in Storage Room 125, delete circuit LP-A, 12 shown for pump RCP-1. Circuit LP-A, 12 shall remain as a spare. On Sheet 801 in Closet 109, add the manual motor starter for RCP-1 and a receptacle for water heater GWH-1 and connect to spare circuit LP-B, 57. In Closet 109, furnish and install a duplex receptacle connected to spare circuit breaker LP-B, 59 for the air compressor.

Reason: Electrical modifications to accommodate Owner requested relocation of the gas water heater and air compressor.

Increase the contract in the amount of:

\$2,202.00

- g. B8.8 Relocate air compressor to Administration Closet 109. Relocate air compressor from Storage 125 to Closet 109. Compressed air piping was originally shown to be routed from the Storage 125, through the Passage 113, and then to Laboratory 110. Now the compressed air piping has changed to route from Closet 109, through the Passage 113, and then to Laboratory 110. Refer to PPP-202 (reissued).

Reason: Owner requested relocation of the air compressor.

Increase the contract in the amount of:

\$603.00

- h. B8.9 Relocate gas water heater and recirculating pump to Administration Closet 109. Relocate the gas water heater and recirculating pump from Storage 125 to Closet 109. HW, HWR, and CW piping connections from each respective main branch to the water heater were originally within Storage 125. Now HW, HWR, and CW piping connections to their respective mains are within Passage 113. Combination air and flue vent to be moved from above Storage 125 to above Closet 109. Refer to PPP-202 (reissued).

Reason: Owner requested relocation of the gas water heater.

Increase the contract in the amount of:

\$4,634.00

- i. B8.10 Update gas water heater detail. Updated gas water heater detail number 12 on Sheet PP-800. Updated to better reflect water heater chosen. Flue was reduced within the detail from 9" to 4". Detail depicts how condensate, drain, and overflow will be discharged within Closet 109. HW, HWR, CW, and G remain depicted the same as originally shown. Refer to PP-800 (reissued).

Reason: Modifications necessary due to Owner requested relocation of the hot water heater.

Increase the contract in the amount of:

\$804.00

- j. B8.11 Removed items from roof view. Hid unit heaters, VAVs and side propeller fan from roof view Sheet PPP-204. This is a no cost change (sheet not reissued due to this change).

Reason: This change was meant to add clarity to the drawings.

Increase/Decrease the contract in the amount of:

\$0.00

- k. B8.12 Moved gas line to gas water heater's new location. Moved gas line from a roof entry into Storage 125 to a roof entry into Closet 109. Continued 1 1/2" gas line to new tee gas water heater branch location. Gas water heater branch changed from 1" to 3/4". Refer to Sheet PPP-204 (reissued).

Reason: Gas service modification to accommodate Owner requested relocation of the gas water heater.

Increase/Decrease the contract in the amount of:

\$0.00

- i. B8:15 Add grille to EF-3 ducting. A ceiling was added within the west stair well (south of Electrical Room 116). The duct work for EF-3 will need to extend through the ceiling and be capped with EG-1 (surface mounted egg crate grille). Refer to MH-202 and M-802 (reissued).

Reason: Required to coordinate with new ceiling added, approved on Change Order 4, item B9.4.

Increase the contract in the amount of:

\$899.00

2. Bulletin #10:

- a. B10.1 Remove new stair and hoist beam from project. Existing stair to remain. New stair and hoist beam with all associated details to be removed from project. Refer to Sheets SD-201, S-205, S-301, S-302, and S-304 (reissued).

Reason: Modifications to the existing stair deleted per Owner request. Access to existing hoist equipment shall be utilized.

Decrease the contract in the amount of:

(\$26,490.00)

- b. B10.2 Remove entrance slabs. Remove entrance slabs on north side of PST No. 2. Modify entrance slab to east side of Administration Building, remove footings and construct foundation walls to 24" below grade. Refer to Sheets S-201, S-301, and S-302 (reissued).

Reason: Additive Alternate 1: Weather Tight Primary Settling Tank Lean-To Enclosure was added by the Owner, which eliminates the need for frost depth entrance slabs within the tempered structure.

Decrease the contract in the amount of:

(\$4,500.00)

- c. B10.3 Revise effluent drop box elevations. Revise elevations of effluent drop box for PST No. 1 and No. 2. Refer to Sheet S-304 (reissued).

Reason: Minor discrepancy in elevations between process and structural sheets.

Increase/Decrease the contract in the amount of:

\$0.00

- d. B10.4 Revise top of wall elevation in influent split structure. Revise top of weir wall elevations to 593.00. Refer to Sheet S-504 (reissued).

Reason: Minor discrepancy in elevations between process and structural sheets.

Increase/Decrease the contract in the amount of:

\$0.00

- e. B10.5 Revise grade elevation under influent channel. Revise Section 1 for approximate grades between the MBBR and existing building. Refer to Sheet S-403 (reissued).

Reason: Grades depicted would have required a retaining wall or sheet piling.

Increase/Decrease the contract in the amount of:

\$0.00

- f. B10.6 Modify line 8 which directs primary effluent flow to the primary effluent wetwell. Reduce the nominal pipe diameter of the fabricated stainless steel line 8 from 24" to 20". Delete the required link seal for the wetwell penetration. The 90 degree elbow to be grouted in place and properly supported. Refer to Sheet P-202 (not reissued).

Reason: The primary effluent line must drop into the existing secondary effluent wetwell, which is a segregated structure. In order for proper clearance to be able to install a pipe penetration and for the curve of a fitting to fit in the cored hole, the pipe must be reduced.

Decrease the contract in the amount of: (\$3,376.00)

- g. B10.7 Delete fabricated metal slide gate GSF-MBR-01. Delete downward opening gate GSF-MBR-01 from the contract. Refer to Sheets P-401 and P-402 (not reissued).

Reason: MBBR effluent screens shall function as water surface elevation control within the tanks. Downward opening gate served as a redundant feature and was eliminated.

Decrease the contract in the amount of: (\$4,820.00)

- h. B10.8 Modification of the weir (W-6) depicted within the final settling tank scum chamber. Weir noted in the field as an FRP stop gate. Delete the weir plate indicated on the plan view north of the final settling tank number 1. Add the extension of the stop gate guide rails and provide a fabricated gate with approximate dimensions of 1.5' wide x 7.0' tall. Refer to Sheet P-501 (not reissued).

Reason: Field conditions were observed different than record drawings.

Increase the contract in the amount of: \$4,618.00

- i. B10.9 Delete modifications depicted within the base bid as listed in Field Order No. 1. Delete the demolition and reconstruction of the raw sewage wetwell interior walls. Refer to Field Order No. 1 (not reissued).

Reason: Field conditions were observed different than record drawings.

Decrease the contract in the amount of: (\$472.00)

3. Work Change Directive (WCD) #6

- a. WCD #6 See modifications to 24" MBRE line and adjust existing cleanouts to proposed grades. Add two 24-inch 45 degree elbows to allow for the MBRE line to be installed below existing lines. Add field verification of existing 6-inch final settling tank sludge/scum return line before installing 24" MBRE. Add cleanout for 6-inch chlorine contact drain line. Add the adjustment of two existing cleanouts. Delete 24-inch MBRE TEE as described within addendum item 2.14. Disregard fittings described within B11.2. Refer to Sheet C-103 (reissued).

Reason: Field conditions were observed different than record drawings. Invert elevations of existing gravity lines were found to be higher than depicted, the MBRE line must be relocated below.

Increase the contract in the amount of: \$26,725.00

4. Email Communication:

- a. Emails dated 04/28/2023 and 05/03/2023 Delete the interior coating of PST1, MBBR, and FST3/Splitter.

Reason: Per Owner request the proposed coatings of existing tanks were deleted. Structures are poured with a water crystalline admixture.

Decrease the contract in the amount of: (\$64,000.00)

Total This Change Order (\$57,379.00)