



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

Change Order #13

DATE OF ISSUANCE: **10/24/2024**

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'S CONTRACT NO. **21-0210**
ARCHITECT/ENGINEER **C2AE, Escanaba & Lansing, MI**

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 23 with Contractor Change Order Request 1 signed, and Staab quote dated 10/15/2024; Bulletin 24 with Contractor Change Order Requests 1 through 3 signed, and Staab quotes dated 10/21/2024; Email Correspondence regarding FRP Doors, lastly dated 10/15/2024, and Staab Change Order Request signed and dated 10/15/2024; Staab Submittal (241 Rev1) for Insulated Metal Wall Panels, dated 9/23/2024 regarding alternate product and credit to Owner, product accepted.**

CHANGE IN CONTRACT PRICE:
Original Contract Price \$17,743,000.00
Net Increase from previous Change Orders No. 1 to 12: \$303,900.25
Contract Price prior to this Change Order: \$18,046,900.25
Net increase of this Change Order: \$178,458.00
Contract Price with all approved Change Orders: \$18,225,358.25

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. 12: Substantial Completion: 8 Months and 12 Days Ready for final payment: 6 Months and 10 Days
Contract Times prior to this Change Order: Substantial Completion: December 27, 2024 Ready for final payment: January 4, 2025
Net increase/decrease this Change Order: Substantial Completion: None. Ready for final payment: None.
Contract Times with all approved Change Orders: Substantial Completion: December 27, 2024 Ready for final payment: January 4, 2025

RECOMMENDED:

By: 
ARCH/ENGR (Authorized Signature)

Date: 10/24/2024

APPROVED:

By: _____
OWNER (Authorized Signature)

Date: _____

ACCEPTED:

By: _____
CONTRACTOR (Authorized Signature)

Date: _____

1. Bulletin #23 REVISED:

- a. **B23.1 Reconfiguration of sludge recirculation piping.** Relocation of the 4" suction piping for the sludge recirculation pumping system, which is currently connected to the 8" MSL line, shall be relocated to the existing 6" RS line. This modification segregates the suction piping for both the sludge recirculation and mixing lines. The City shall furnish the required 6" valves, while the Contractor is to provide the 8" plug valve that separates the 8" MSL and 6" RS lines. Work may be conducted to the tee that splits the 4" RSL line to both sludge recirculation pumps. A forthcoming bulletin shall confirm pump configuration and controls. See Revised Sheet P-705 (reissued).

Reason: Per Owner request to segregate the various pumping systems associated with the digesters.

Increase the contract in the amount of: \$48,959.00

2. Bulletin #24:

- a. **B24.1 Removal and replace of the sludge recirculation pumps (PVN-RSL-01 and 02) with self-priming sludge recirculation pumps (PSPC-RSL-01 and 02).** Remove and replace the two installed sludge recirculation pumps, turn previously installed pumps over to the Owner. Complete the piping connection from the previously submitted Bulletin 23, coordinating the location of the pumps with piping modifications. The new Sludge Recirculation Pumps shall be Gorman Rupp T3CSC-B-4, 3-Inch, with 5 Hp motors. See attached pump curve and data sheet for more details. The pumps are to be controlled by a local control panel to maintain a constant setpoint flow rate. The pumps are to start at full speed, then, after they are primed, slow to the desired setpoint flow of 100 gpm. See attached digester temperature control system description for more detail. The pumps, VFDs, magnetic flowmeter and control panel are to be provided as a packaged system. Refer to P-705 and P-706 from Bulletin 23 (not reissued). The VFDs shall be Schneider Electric Model ATV660, NEMA 12 enclosed, with a thermal-magnetic circuit breaker disconnect and cover mounted keypad, Hands-Off-Auto selector switch, Start-Stop pushbuttons, green LED running light and speed potentiometer to match existing VFDs installed. The magnetic flowmeter shall be E+H Promag, 4-inch, flanged, with remote mounted transmitter. The control panel shall be NEMA 12 enclosed.

Reason: Upgrades to the sludge recirculation pumping to ensure consistent performance of the sludge heating system.

Increase the contract in the amount of: \$100,787.00

- b. **B24.2 Disconnect electrical connections to existing sludge recirculation pumps and connect new pumps, VFDs, flowmeter and controls. Refer to Sheets E-111, E-141 and E-701 (not reissued).** Disconnect the PP-D circuits feeding the existing pumps. Remove the existing combination starters and turn over to the Owner. Install the two new VFDs noted above at the same location as the existing motor starters and connect the new VFDs and pumps to the existing pump circuits. Provide each VFD with control connections to the new control panel - ¾"C, 2-2/C#188SH and ¾"C, 8#14. Install the new pump control panel furnished with the pumps near the VFDs, coordinate exact location with the Owner and Engineer. Provide 120V power to the control panel from circuit LP-D, 23. Provide control connections between the boiler control panel and the new panel - ¾"C, 16#14 (8 used). Connect the two VFD fault alarm contacts in parallel with the Common Alarm contact within the boiler control panel. Route the pump running signals through the new control panel to the boiler control panel and from there to the MCP as described in Bulletin 13, item 3. Install the new magnetic flowmeter as shown in the detail on Sheet E-141. Provide 120V power to the flowmeter transmitter from the circuit LP-D, 25. Install new flow signal cables from the flowmeter transmitter to the new control panel - ¾"C, 2-2/C#18SH.

Reason: Upgrades to the controls and electrical associated with sludge recirculation pumping upgrades.

Increase the contract in the amount of: \$30,318.00

- c. B24.3 **Refer to specification section 40 6196 (not reissued) and make the following PLC & OIT programming modifications.** In paragraph 1.26.B.2.c, add a low digester sludge temperature alarm to the analog temperature signal. Interlock this alarm with the sludge recirculation pumps such that the alarm only occurs after a recirculation pump has run for an adjustable 0 to 30 minute time period. Initially set the alarm at 90F and the time delay at 15 minutes. In paragraph 1.26.B.3.k, revise the alarm designation from "Boiler Fault" to "Digester Sludge Heating Fault".

Reason: Upgrades to the controls and electrical associated with sludge recirculation pumping upgrades.

Increase the contract in the amount of: \$2,009.00

- 3. Email Correspondence, C2AE (Engineer) and Staab Construction (Contractor), last dated October 15, 2024, Door Function/Hardware:

- a. Email **Owner requires a door function change to enable more efficient workflow/movement throughout the plant.** Owner would like them to have a "Classroom" type function where the outside trim can be left unlocked for a period of time and then re-locked when they want it secured. The door devices supplied have 990-NL pull trim, requiring a key each time to open from pull side, and without hex-key dogging. The option to fix the doors involved is to switch out the horizontal push-rail for one that can be dogged-down. This allows you to hold the device latch bolt retracted. The doors would close but would not latch until the device is "un-dogged" by using the hex-key on push side. When the device is dogged-down, it's unlocked from pull side until it's "un-dogged". This would be for doors: 116.1, 119.1, 120.1, 121.1, 121.2, 121.3, 122.2.

Reason: Per Owner request to enable a more efficient workflow throughout the facility.

Increase the contract in the amount of: \$1,385.00

- 4. Submittal 241 REVI Insulated Metal Wall Panels (Alternate):

- a. Submittal 241 REVI **Alternate product proposed by roofer for insulated metal wall panels.** Alternate product is manufactured in Michigan. Panels are 3" thick, PVDF coating as specified, sub has provided a warranty letter (2-year warranty). Product is approved.

Reason: An alternative product was proposed to maintain schedules by the roofers.

Decrease the contract in the amount of: \$(5,000.00)

Total: \$178,458.00