



## Staff Report

**TO:** City Council

**FROM:** Thaxton Van Belle, General Manager of Utilities

**DATE:** September 7, 2021

**SUBJECT:** **City Council Approval of Change Order No. 20 for the Wastewater Treatment Plant Upgrade/Expansion in the Amount Not to Exceed \$113,100.05 for a Solids Loading Truck Scale Modification and Associated Site Paving and Grading Modifications**

---

### **Background and Analysis:**

#### **Wastewater Treatment Plant Change Order No. 20**

The expansion of the City's wastewater treatment plant (Plant) began construction in October 2018. Phase I of construction has been completed and the contractor, WM Lyles (WML), is nearing completion of Phase II.

#### **Item 1: Solids Loading Truck Scale Modification**

This change increases the size of the Plant's scales to accommodate the loading of sludge hauling trailers with the yard mule tractor attached for more accurate weight. It also helps reduce the potential for accidents since the possibility of the trailer's landing gear collapsing is eliminated and Plant staff no longer has to back up to a fully loaded trailer.

#### **Design and Scope Changes**

1. The 3' x 10' x 6" landing gear scale shall be replaced with a 24' x 10' x 6" Yard Mule Tractor scale as quoted by Meldrum Scale Company;
2. The concrete foundation shall be modified per revised contract drawing CLAR-43, SLS-1; relocating floor drains, adjusting drainage slope and the extension of the concrete foundation to the north to accommodate the larger scale;
3. Per the requirements of Contract Specifications Section 347813 the protective coating of the scale shall be changed from a two-part epoxy to manufacturer standard powder-coat with a standard dry-mill thickness of 2 to 3 millimeters. Load cells shall be changed from stainless-steel fabrication to nickel-plated alloy steel; and

4. Cost proposal shall include the costs for the larger 24' x 10' x 6" scale minus the cost of the 3' x 10' x 6" landing gear scale including all necessary costs for the adjustments in labor and handling for a larger scale along with the cost for the extension of the concrete foundation.

**Cost Impact:**

MWH Constructors, Inc. (MWHC), has reviewed the attached WML cost proposal and find it acceptable. Accordingly, MWHC recommends a contract cost increase of \$36,118.91 to be executed in a change order for the modifications requested.

**Item 2: Site Paving and Grading Modifications to Facilitate Solids Loading**

This change is recommended to accommodate longer sludge trucks and to improve traffic flow patterns throughout the site. The truck scale at the dewatered solids loading structure was modified to accommodate more accurate weight measurement of the sludge truck and trailer, which increased the concrete foundation of the solids loading structure. Also modified is the increase in turning radius of the roadway entrance to the solids loading facility and the addition of a paved sludge trailer storage area.

**Design and Scope Changes**

1. Changes in site grading are to be made as noted throughout the design clarification drawings;
2. The addition of paving for sludge trailer storage located east of the equalization basin, also shown in the design clarification;
3. The increase in size of the foundation of the solids loading structure to accommodate a larger scale and truck tractor; and
4. Modification to the roadway access northeast of the solids loading structure and relocation of storm drain catch basin and piping, also as noted on the design clarification drawings.

**Cost Impact:**

MWHC has reviewed the attached WML cost proposal and find it acceptable. Accordingly, MWHC recommends a contract cost increase of \$76,981.14 to be executed in a change order for the modifications requested.

**Summary of Change Order No. 20 Costs:**

The cumulative costs associated with this change is in the amount not to exceed \$113,100.05. The costs are as summarized below.

Item	Cost
Item #1 – Solids Loading Truck Scale Modification	\$36,118.91
Item #2 – Aeration Basin Network Switch for HACH Instruments	\$76,981.14
<b>Total:</b>	<b>\$113,100.05</b>

**Fiscal Impact:**

WWTP	Budget Amount	Paid to Date	Remaining
Design	\$ 2,697,942.63	\$ 2,557,938.51	\$ 140,004.12
Construction Management	\$ 5,382,475.75	\$ 5,626,153.46	\$ (243,677.71)
Equipment	\$ 252,906.00	\$ 256,216.13	\$ (3,310.13)
Permits	\$ 324,776.76	\$ 121,450.10	\$ 203,326.66
Construction	\$ 53,910,737.00	\$ 48,974,526.04	\$ 4,936,210.96
Contingency	\$ 5,624,252.52	\$ 3,691,820.49	\$ 1,932,432.03
Unallocated	\$ 2,441,341.72	\$ -	\$ 2,441,341.72
<b>Total</b>	<b>\$70,634,432.38</b>	<b>\$61,228,104.73</b>	<b>\$9,406,327.65</b>

CO No.	Description	Reason for Change	Amount	Amount
1	MBR System Improvements	Enhance the performance of MBR System	\$149,741.00	\$149,741.00
2	RO System Electrical Modifications & Storm Drain System Material Change	Design & Material Updates	(\$245.00)	(\$245.00)
3	New Aeration Basin 1 through 3 Excavation	Conflict with Existing Utilities	\$19,998.00	\$19,998.00
4	Structural and Mechanical Modifications	Pre-Selected Submittals	\$57,450.64	\$57,450.64
5	Vactor Truck Dump Station Modifications	Conflict with Construction	NTE \$15,000.00	\$15,000.00

6	EDI/Fine Coarse Bubble Diffuser Equipment	Design Change	\$24,298.00	\$24,298.00
7	Various Changes – MBR/RO Structural, Site Civil & Headworks SCADA Design Modifications	Design Changes	\$59,167.49	\$59,167.49
8	Various Changes - Demolition, Piping Realignment, Material Change, and Electric Actuated Valve Voltage Change	Unforeseen Conditions and Value Engineering	\$6,067.00	\$6,067.00
9	Various Changes - Solids Handling Bldg. Conveyor Capacity Increase, Electrical Yard Vault Cover Changes, Additional Pothole Investigation and Existing Duct Bank Removal, and Yard Utilities	Design Changes, Conflict with Construction, Owner Requested Changes	\$138,531.73	\$138,531.73
10	MBR Chemical Area Changes & Other Misc. Changes and Inclement Weather Impact Nov-18 to May-19	Owner Requested Changes & Inclement Weather	\$596,031.05	\$596,031.05

11	Frontier Internet Provider Duct Bank Modifications, 30-inch MBR & 20-inch Plant Effluent Pipeline Elevation and Alignment Modifications, Additional Safety Required Handrail at Retaining Wall and Generator	Design Changes, & Conflict with Construction	\$81,128.29	\$81,128.29
12	RO-Sulfuric Acid Chemical Piping Material Change, Solids Feed Pump TR/TSH Thermocouple Elements, Solids Handling Bldg. Changes	Design Changes, Owner Requested Changes	\$91,417.26	\$91,417.26
13	Plant Effluent Chemical Area Changes	Owner Requested Changes	\$404,821.33	\$404,821.33
14	ADA Compliance Men's – Women's Restroom Modifications & SCE Required Additional 4/0 Ground Cable	Design Changes & SCE Requirements	\$12,311.12	\$12,311.12

15	Aeration Basin 24" Air Piping Block-outs and Pipe Seals, Modifications to HACH Instrumentation Communications Protocol, MBR Module Lifting Safety Device, RO CIP-Skid Discharge Orifice Plate Addition	Design Changes, Owner Requested Changes	\$79,713.39	\$79,713.39
16	Pump station at the EQ Basin	Design Changes, Owner Requested Changes	NTE \$667,487.82	\$667,487.82
17	RW FUTURE PUMP STATION, Weather Time Extension, Valve Modifications, MBR Feed Pump Seal Water Control Changes	Design Changes, Owner Requested Changes, Unforeseen Conditions	NTE \$159,442.86	\$159,442.86
18	Construction Cost of UV System, Weather Time Extension	Design Changes, Unforeseen Conditions	NTE \$1,788,568.52	\$1,788,568.52

19	Aeration Basin 1-4 MOV Extension Risers, Aeration Basin Network Switch for HACH Instruments, Fine Screens, MBR Addition	Design and Scope Changes	\$ 95,556.60	\$95,556.60
20	Huber	Design Change	NTE \$113,100.05	\$113,100.05
<b>WWTP Contingency</b>	<b>Budget Amount</b>	<b>Change Orders 1-20</b>	<b>Remaining</b>	<b>Total</b>
	<b>\$5,624,252.52</b>	<b>\$4,559,587.15</b>	<b>\$1,064,665.37</b>	<b>\$4,559,587.15</b>

**Recommended Action:**

Staff recommends City Council approval of Change Order No. 20 for the Wastewater Treatment Plant Upgrade and Expansion in the amount not to exceed \$113,100.05 for Solids Loading Truck Scale Modifications and Associated Site Paving and Grading Modifications.

**Attachments:**

- A. Change Order 20