

RESOLUTION 22-225

A RESOLUTION TO APPROVE A CHANGE ORDER FOR CLEANING ADDITIONAL SLUDGE FROM THE OXIDATION STRUCTURE, DIGESTER AND (4) CLARIFIERS

WHEREAS, the City of Spring Hill's Wastewater Treatment Plant has a long-term problem with non-flushable wipes, plastics, and debris passing into the system causing harm to the operating systems; and

WHEREAS, currently the plant is under contract with Utility Service Co., Inc for the process of cleaning and lining the Oxidation Basin No.2 as approved by Resolution 21-175; and

WHEREAS, it was determined during dewatering that the estimated sludge cleaning of the Oxidation Structure #2 in the scope of the original project was not sufficient to cover the extent discovered; and

WHEREAS, the City of Spring Hill's Wastewater Treatment Plant also submitted a corrective action plan/ engineering report on January 31st 2022 proposing to clean the accumulated screenings and aged solids from the digester basins; and

WHEREAS, a revised estimate to clean out the additional exposed sludge and debris is 2,450 cubic yards more than originally estimated of 450 cubic yards for a total of 2,900 cubic yards; and

WHEREAS, the digester and clarifiers cleanout at a total of 880 tons of solids removal and disposal, as detailed in attachment Amendment No. 2; and

WHEREAS, the change order for comprehensive cleaning will be funded from fund balance in the Water and Sewer fund; and

WHEREAS, City staff recommends approving the change order for cleaning the Oxidation Structure, Digesters, and four Clarifiers at the Wastewater Treatment Plant in the amount of \$1,651,566.00.

NOW, THEREFORE BE IT RESOLVED, the City of Spring Hill Board of Mayor and Aldermen:

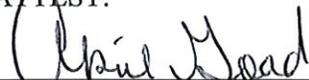
1. Approve the change order for cleaning Oxidation Basin No. 2, Digester and (4) Clarifiers
2. Authorize the Mayor to sign the Amendment No. 2 Contract

Passed and Adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 3rd day of October, 2022.



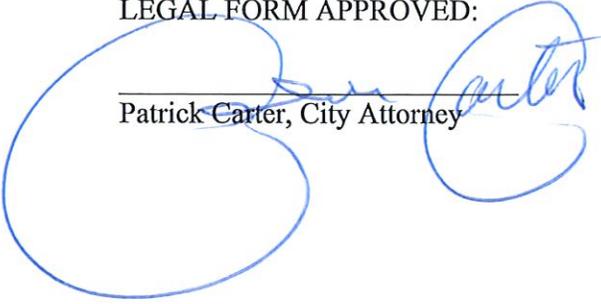
Jim Hagaman, Mayor

ATTEST:



April Goad, City Recorder

LEGAL FORM APPROVED:



Patrick Carter, City Attorney



REQUEST: *Approval of Resolution 22-225*
SUBMITTED BY: Jessica Weaver, Utility Director
DATE: October 3, 2022
RE: To approve request of a change order for cleaning Oxidation Structure #2, Digester and all (4) Clarifiers

ATTACHMENTS:

PURPOSE:

To approve Resolution 22-225 for a change order to clean out additional debris and sludge in Oxidation Structure #2, Digester and all (4) Clarifiers.

BACKGROUND:

The City of Spring Hill has had long term problems with non-flushable wipes, plastics and debris passing through the headworks screens at the wastewater treatment plant. The screens have been replaced as of August 2021. With this being completed, the next step in correcting the issues that have built up over the years is the oxidation basin lining and cleaning. This project was approved through resolutions 21-42 and 21-175 with basin No. 2 liner currently in progress. Due to not being able to take this side of the oxidation basin out of service since it was put in service ten years ago, there was no way to accurately determine how much actual sludge and debris was in this Basin. Once dewatering was completed last week, staff determined the actual amount of sludge that must be removed to complete the lining project is 2.5 feet with an estimated total of 2900 cubic yards at a cost of \$433.00 per cubic yard. The initial estimate to clean out the oxidation structure was estimated based upon deployment, setup, per hour charges for personnel, equipment and supplies to clean 450 cubic yards of sludge and debris which is what is typically found in a basin. The original contracted amount of sludge removal of 450 cubic yards is not sufficient.

In addition to the cleaning of the Oxidation Basin, the Digester and (4) Clarifiers have an overwhelming amount of accumulated sludge and debris that has collected over the years that must be removed. As part of the corrective action plan/ engineering report that was approved by TDEC under the City's Director's Order, it was stated that *"the City will contract with a*



specialized vendor to clean the accumulated screenings and aged solids from the digester basins.” To achieve this commitment, the vendor that is already on site performing the cleaning of the Oxidation Basins, can continue the cleanout of the Digester and (4) Clarifiers without the City being charged additional deployment and staging charges. The current crew on site was the least expensive of the two contractors that are able to dispose of the sludge and can continue cleaning providing the City with the least expensive option to achieve compliance.

FINANCIAL IMPACT:

The financial impact to clean the Oxidation Structure, Digester and (4) Clarifiers is \$1,651,566.00. This quote includes credits for filter media disposal and a reaeration tank that was in the original estimate but cannot be taken out of service to be lined. The remainder of the expense will be funded from fund balance in the Water and Sewer Fund with a budget amendment from budget amendment No. 1.

STAFF RECOMMENDATION:

Staff recommends approval of Resolution 22-225 to approve a change order for cleaning additional sludge from the oxidation structure, digester, and (4) Clarifiers as discussed in Amendment No. 2 with Utility Service Co., Inc.

AMENDMENT NO. 2 TO CONTRACT FOR
HIGH PERFORMANCE LINING SYSTEM FOR THE OXIDATION BASIN
AT THE WASTEWATER TREATMENT PLANT BETWEEN
UTILITY SERVICE CO., INC.
AND
CITY OF SPRING HILL, TN

OXIDATION BASIN AT THE WASTEWATER TREATMENT PLANT

1. **Effective Date.** The Effective Date for this Amendment No. 2 ("Amendment No. 2") to the Contract for High Performance Lining System for the Oxidation Basin between Utility Service Co., Inc. ("Company") and City of Spring Hill ("Owner") shall be September ____, 2022.
2. **Modification of Scope of Work.** The scope of work under the contract is hereby modified to add the following services, which are further detailed in Exhibit A:

(A) Oxidation Ditch 2 Sludge Removal

Assets: Oxidation Ditch 2

Summary of work to be performed:

- (i) Remove 2,450 cubic yards ("CY") of additional sludge associated with Oxidation Ditch 2 renovation. There is 450 CY of removal included in the Contract. Total sludge removal will be 2,900 CY. Final quantity may vary and may be subject to final pricing adjustment at \$433 per CY.

(B) Digester Sludge Removal

Assets: Digester

Summary of work to be performed:

- (i) Cleaning solids build up in one (1) Digester, consisting of two (2) cells and four (4) Clarifiers to assist Owner with plant operation and biological controls.

Detailed specifications for items (i) above are attached hereto in Exhibit A, which incorporated herein by reference.

(C) Credit for Onsite Gravity Filter Media Disposal

Asset: Gravity Filters

Summary of work to be performed:

- (i) Media removed from filters during renovation was originally priced to be hauled offsite to a disposal facility. Media may now be disposed of onsite. A credit shall be issued to remove offsite disposal from the Contract.

(D) Credit for Unapplied Coatings in Aeration Chamber

Asset: Aeration Chamber

Summary of work to be performed:

(i) Part of the aeration chamber was not coated during prior renovation.

3. **Modification of Contract Price.** The additional fee for the services defined in this Amendment No. 2 for the modified scope of work shall be **\$1,651,566.00**. This amount is in addition to the original contract amount of \$773,160.00, and Amendment No. 1 in the amount of \$1,897,182.00. Detailed pricing breakdown is below. This additional fee shall be invoiced by the Company and paid by the Owner on a monthly basis and based on milestones achieved under the modified scope of work. The breakdown of pricing for Amendment No. 2 is as follows:

Ox Ditch 2 Sludge Removal	\$ 1,059,032
Digester Sludge Removal	\$ 663,502
Structure Cleanout	\$ - 24,194
Credit for Onsite Filter Media Disposal	\$ - 46,774
Amendment No. 2 Total	\$ 1,651,566

The revised Total Contract Amount is as follows:

Original Contract Amount	\$ 773,160.00
Amendment No. 1 Amount	\$1,897,182.00
Amendment No. 2 Amount	\$1,651,566.00
Revised Total Contract Amount	\$4,321,908.00

4. **Modification of Contract Time.** The contract time shall be extended for an additional ninety (90) calendar days. Work shall not be allowed during unfavorable conditions and if the project is not completed prior to winter, then the work will require suspension until favorable weather returns in spring. Any such delay due to unfavorable weather shall be an excusable delay without penalty to the Company.
5. **Limitation of Liability.** In no event will the Company or its respective affiliates, subsidiaries, officers, directors, officials, and employees or its suppliers be liable for any loss of revenue, profits, or data, or for any special, indirect, consequential, incidental, exemplary, or punitive damages however caused, and regardless of the theory of liability (contract, tort, negligence, or otherwise) which arises out of the Company's or its suppliers' performance or non-performance under this Agreement. The total liability of the Company, its affiliates, subcontractors and employees arising out of performance or non-performance of obligations under this Agreement shall not exceed in the aggregate a sum equal to one hundred percent (100%) of the total of all fees actually paid by the Owner to the Company under the terms of this Amendment No. 2.
6. **Ratification of Original Contract.** Except as expressly amended and modified herein, the parties do hereby ratify and affirm the original contract, and acknowledge their binding effect upon the parties

7. **Authorization to Execute.** The signatories below certify that they are duly authorized to execute this Amendment No. 2 on behalf of the entities represented.

IN WITNESS WHEREOF, the Parties have executed this Amendment No. 2 effective the day and year first above written.

OWNER

COMPANY

City of Spring Hill

Utility Service Co., Inc.

By: 

By: 

Name: Jim Hageman

Name: Jonathan Cato

Title: Mayor

Title: Chief Operating Officer

Date: 10-3-2022

Date: September 23, 2022

Exhibit A

Digester Sludge Removal

Digester Sludge Removal

Cleaning solids build up in one (1) Digester, consisting of two (2) cells and four (4) Clarifiers to assist Owner with plant operation and biological controls.

Cleaning of digester and clarifiers are at the direction of the Owner. Cleaning of these tanks does not guarantee that process control and reduction or suppressing of foam in the oxidation ditch will be achieved. Owner may have to perform additional operational changes within the process to achieve desired results and compliance with state permit requirements.

Cleaning of the one (1) digester (2 cells) and four (4) clarifiers is estimated to be performed in fifteen (15) working days. A total of 880 tons of solids removal and disposal to the local landfill is included in this proposal. Owner is to perform TCLP analysis and provide waste manifest prior to sending solids to landfill.

Disposal of solids will be at a new disposal site. The Owner is to complete all necessary notifications and approvals to the Tennessee Department of Environment and Conservation prior to commencement of work. Existing disposal facility is at capacity and does not have the ability to accept additional solids during this operation.

For each additional working day of solids removal in excess of the fifteen (15) days provided, a charge of \$22,400/per day shall be included in an authorized change order.

For each additional ton solids removal and disposal in excess of the 880 tons provided, a charge of \$125/per ton shall be included in an authorized change order.

Epoxy injected crack repair to the exterior of the Rearation Basin as follows:

Concrete Crack and Joint Repair: For the purposes of establishing a basis of quantity and not assigning a unit price, the proposal includes an estimated quantity of 50 linear feet of exterior crack repair for cracks that are actively leaking. The quantity given is not a guarantee of the amount of repair to be performed or include any latent defects not found during our visual observations of the Asset. The Company reserves the right to request a change order for unforeseen or latent defects, if determined necessary.

Concrete Repair - Crack Repair-Epoxy Joint: Clean joint free of oils and foreign material. Drill and insert injection ports at 4" of center of crack. Prime joint with clean water. Apply epoxy material until flowing until next port and joint is filled. Tool flush with surface. Remove injection ports flush with surface after cured.

Notes/Exclusions:

Company is not responsible for differing, latent or hidden conditions, including weather.

In the event of a different or unknown problem, Company will be entitled to equitable adjustment in price and time to compensate for additional costs.

All work is expected to occur during acceptable weather and/or seasonal times. Environmental controls, including dehumidification and auxiliary heating, are not included.

All workers to have 10-hour OSHA card; any additional safety requirements are subject to request for additional compensation.

This Amendment No. 2 is based upon a visual inspection of the Asset. The Owner and the Company hereby acknowledge and agree that a visual inspection is intended to assess the condition of the Asset for all patent defects. If latent defects are identified once the Asset has been drained for repairs, the Owner agrees and acknowledges that the Company shall not be responsible to repair the latent defects unless the Owner and the Company renegotiate pricing.