CHANGE ORDER NO. 2

Owner:	Town of Ashland City	Owner's Project No.:	
Engineer:	Civil & Environmental Consultants, Inc.	Engineer's Project No.:	190-150
Contractor:	Reeves Young, LLC	Contractor's Project No.:	23701
Project:	Ashland City Wastewater Treatment Plant Construction		
Contract Name:	Contract 321 – Ashland City Wastewater Treatment Plant Construction		
Date Issued:		Effective Date of Change Order:	

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

Description: Reeves – Young has submitted a time extension claim for the addition of 16 days to the overall contract time due to weather delays in 2023. The claimed days are as follows: (3) days in the month of June, (7) days in the month of July, and (6) days in the month of August. Sufficient information has been presented to the Engineer to recommend the approval of this claim based on the requirements identified in Specification section 012620 – Weather Delays.

There have also been a total of (11) proposed changes to the project scope as either value engineering items or items that have added value to the project. See below for the list and full details on each item.

1. Contract Adjustment of Bid Items 4, 5, & 6.
    a. The original undercut and backfill volumes in the contract were estimated to be 3,500 CY but during excavation the contractor was required to undercut and backfill a total of 3,955.33 CY. The unit prices for undercut and crushed stone backfill are $15/CY and $50/CY, respectively. The total allowance for Bid Items 4, 5, & 6 was $247,500. The cost for undercutting and backfilling 3,955.33 CY from Reeves – Young was $257,096.45. The requested adjustment for $9,596.45 was deemed acceptable based on the provided documentation from Reeves – Young. This work also required an additional 5 days to be completed.
2. Stainless Steel Air Piping Flanges
    a. Change from welded neck flanges to AWWA Class SD 150 lb Plate Flanges. The proposed substitution provides a savings of $15,250 and was deemed reasonable and fair. The substitution of flange does not alter the integrity of the design as both options require welding in the factory and are both 150-lb flanges.
3. PVC Electrical Conduit
    a. Change from rigid piping to Sch 80 PVC for electrical conduit located within concrete. Rigid conduit within concrete structures is not a code requirement. The Contractor was asked to provide a proposal to allow CEC along with the Electrical Engineer and Public Works to see if the savings were sufficient to warrant the change. The savings offered was $29,964 and it was determined to be sufficient to make the material change.
4. Plumbing Changes
    a. CEC procured the services of a mechanical engineer to provide a peer review of the water service and the plumbing design for the operations building. Suggested improvements focus on health and safety of the staff and potential visitors to the facility. The changes proposed by CEC include: addition of recirculation pump to domestic water piping within control building, cold water piping to all safety showers, plumbing fixture vents at fixtures P-2 and P-4, water heater expansion tank, and 4" reduced-pressure backflow preventer located on city water line to process connections, removal of 2" double check valve backflow preventer on city water line to chemical piping, increased size of water heater to 120-gal to allow for appropriate delivery time of hot water to safety showers during

use. The proposed additions have been recommended by CEC. Reeves Young proposal is $42,684.69 and is recommended for acceptance

5. Backflow Enclosure & Fire Department Connection
    a. Change of location for 6" reduced-pressure backflow preventer and addition of fire department connection. The backflow preventer is proposed to be relocated outside of the control building within a weather proof and heated enclosure for ease of access and to provide additional room for 4" backflow preventer added in change #4 listed above. A fire department connection to the domestic water piping has been added per building fire codes. The overall cost for these described additions is $35,840.15. The work will require an additional 5 days of labor to be completed. CEC recommends acceptance.
6. Forcemain Relocation @ Influent Pump Station
    a. While excavating the footprint of the proposed influent pump station located at the existing wastewater treatment plant, Reeves-Young unearthed the HWY 12 forcemain within the proposed station footprint. The forcemain is to be temporarily routed to the existing septage receiving station until the project is completed. Once construction is complete, the HWY 12 forcemain will be redirected from the existing treatment plant and will be interconnected to the proposed forcemain near McQuarry St. The cost for the required relocation is $3,409.27. CEC recommends acceptance.
7. Boring Length Adjustments
    a. Addition of 30' of 24" casing pipe, 25' of 16" casing pipe, and 25' of 6" casing pipe at bore located at station 36+57. The borings are required to be lengthened as listed above to ensure the boring equipment goes beyond the toe of the slope formed by Tennessee Waltz Parkway and to avoid disturbance to the fill. The cost for this lengthening is $715/ft for the 24" casing, $550/ft for the 16" casing, and $375/ft for the 6" casing for a total cost of $47,505.81 after including the contractor markup. CEC recommends acceptance.
8. 16" Forcemain Valve Deduction
    a. The removal of a 16" resilient seat gate valve located on the forcemain at station 30+58 has been proposed to be removed from the project. During design, the valve was placed so that the piping for the forcemain could be completed between the new wastewater treatment plant and station 30+58 and the connection to the existing HWY 12 forcemain could be made to direct a small amount of flow to the proposed plant while construction of the rest of the forcemain continued. That construction sequence was not used by Reeves-Young and the proposed valve provides no other necessary function. The offered credit for the valve removal is $10,600. CEC has recommended acceptance.
9. PVC Coatings
    a. Change to no longer require Reeves-Young to provide coating on PVC process piping. The purpose of the pipeline painting requirement was to color code individual pipelines for identification of contents within pipe. This creates a continual maintenance requirement for personnel. A better alternative is to wrap the pipe with a color coded and labeled band to identify the pipeline contents. A $15,700 credit was proposed by the Contractor. CEC has recommended acceptance.

Attachments:

- Weather Day Documents_Combined_20240110
- Ashland City WWTP - PCO 001 - Unsuitable Soils
- Ashland City WWTP - PCO 002 - SS Pipe Flanges
- Ashland City WWTP - PCO 003 - PVC Conduit Deduct
- Ashland City WWTP - PCO 004 - Plumbing Changes
- Ashland City WWTP - PCO 005 - BFP & FDC Changes

- Ashland City WWTP - PCO 007 - Forcemain Relocation
- Ashland City WWTP - PCO 008 - Boring Length Cost Detail
- Ashland City WWTP - PCO 010 - 16in Valve Deduct
- Ashland City WWTP - PCO 011 - PVC Coating Deduct

Change in Contract Price	**Change in Contract Times [State Contract Times as either a specific date or a number of days]**
Original Contract Price: $ 30,745,000	Original Contract Times: Substantial Completion: 720 Days Ready for final payment: 780 Days
[Increase] ~~**[Increase]**~~ **[Decrease]** from previously approved Change Orders No. 1 to No. **2** $ 740,000	**[Increase] [Decrease]** from previously approved Change Orders No.1 to No. **2** Substantial Completion: N/A Ready for final payment: N/A
Contract Price prior to this Change Order: $ 30,005,000	Contract Times prior to this Change Order: Substantial Completion: 720 Days Ready for final payment: 780 Days
[Increase] [~~**Decrease**~~**]** this Change Order: $ 67,523	**[Increase]** ~~**[Decrease]**~~ this Change Order: Substantial Completion: 26 Days Ready for final payment: 26 Days
Contract Price incorporating this Change Order: $ 30,072,523	Contract Times with all approved Change Orders: Substantial Completion: 746 Days Ready for final payment: 806 Days

Recommended by Engineer (if required)	Accepted by Contractor
By:	
Title:	
Date:	
Authorized by Owner	**Approved by Funding Agency (if applicable)**
By:	
Title:	
Date:	

REEVES YOUNG

Adverse Weather Delays - Time Extension Claim

Project:	Ashland City WWTP
Date:	12/21/2023

Period Start: 11/1/2023
Period End: 11/30/2023
Period Month: NOV

Claimable Weather Days to Date:	16
Recorded Weather Days for Period:	4
Specified Mean Days for Period:	6
Weather Days for This Period:	0
Claimable Weather Days for This Period:	0
Original Final Completion Date:	5/22/2025
Updated Final Completion Date:	**6/7/2025**

Contractor Signature: _____ Date: 12/21/2023

Owner/Engineer Signature: _____ Date: _____

*For Data not available/not yet reported via NOAA, Reeves Young retains the right to claim adverse weather delays at a later time if this data becomes available at a later date.

* For data not available at the Cheatham Lock & dam NOAA Station, the Clarksville NOAA Station will be

ADVERSE WEATHER DELAYS
STANDARD BASELINE, IN DAYS:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
12	11	8	7	7	6	7	5	4	5	6	11

ADVERSE WEATHER DELAY DAYS
ADVERSE WEATHER IS DEFINED AS THE OCCURANCE OF ONE OR MORE OF THE FOLLOWING CONDITIONS:
1. PRECIPITATION (RAIN, SNOW, OR ICE) IN EXCESS OF ONE-TENTH INCH LIQUID MEASURE
2. "Dry-Out"/"Mud Days" RAIN DAYS ABOVE STANDARD BASELINE IF HINDRANCE TO SITE ACCESS OR SITE WORK
3. NO GREATER THAN (1) MAKEUP DAY FOR EACH DAY OR CONSECUTIVE DAYS OF RAIN BEYOND STANDARD BASELINE - 1" rain or more

Total Claimable Days: 16

Rain Days
Mud Days
NOAA Data Not Available

Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		Oct-23		Nov-23		Dec-23		Jan-24		Feb-24		Mar-24	
DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP	DAY	PRECIP
4/1/2023		5/1/2023	0	6/1/2023	0.25	7/1/2023	0	8/1/2023		9/1/2023	0	10/1/2023		11/1/2023	0	12/1/2023		1/1/2024		2/1/2024		3/1/2024	
4/2/2023		5/2/2023	0	6/2/2023	0.1	7/2/2023	0	8/2/2023	0	9/2/2023	0	10/2/2023	0	11/2/2023		12/2/2023		1/2/2024		2/2/2024		3/2/2024	
4/3/2023		5/3/2023	0	6/3/2023	0	7/3/2023	1.47	8/3/2023	0.04	9/3/2023	0	10/3/2023	0	11/3/2023		12/3/2023		1/3/2024		2/3/2024		3/3/2024	
4/4/2023		5/4/2023	0	6/4/2023	0	7/4/2023	0	8/4/2023	1.32	9/4/2023	0	10/4/2023	0	11/4/2023	0	12/4/2023		1/4/2024		2/4/2024		3/4/2024	
4/5/2023		5/5/2023	0	6/5/2023	0	7/5/2023	0	8/5/2023	0	9/5/2023	0	10/5/2023	0	11/5/2023	0	12/5/2023		1/5/2024		2/5/2024		3/5/2024	
4/6/2023		5/6/2023	0	6/6/2023	0	7/6/2023	0	8/6/2023	0.6	9/6/2023	0	10/6/2023	0.29	11/6/2023	0	12/6/2023		1/6/2024		2/6/2024		3/6/2024	
4/7/2023		5/7/2023	0	6/7/2023	0	7/7/2023	0.56	8/7/2023	0.04	9/7/2023	0	10/7/2023	0	11/7/2023	0	12/7/2023		1/7/2024		2/7/2024		3/7/2024	
4/8/2023		5/8/2023	2	6/8/2023	0	7/8/2023	0	8/8/2023	0	9/8/2023	0	10/8/2023	0	11/8/2023	0	12/8/2023		1/8/2024		2/8/2024		3/8/2024	
4/9/2023		5/9/2023	0.03	6/9/2023	0	7/9/2023	1.1	8/9/2023	0	9/9/2023	0	10/9/2023	0	11/9/2023	0	12/9/2023		1/9/2024		2/9/2024		3/9/2024	
4/10/2023	0	5/10/2023	0	6/10/2023	0	7/10/2023	0.15	8/10/2023	0.75	9/10/2023	0	10/10/2023	0	11/10/2023	0.53	12/10/2023		1/10/2024		2/10/2024		3/10/2024	
4/11/2023	0	5/11/2023	0	6/11/2023	0	7/11/2023	0	8/11/2023	0.02	9/11/2023	0	10/11/2023	0	11/11/2023	0	12/11/2023		1/11/2024		2/11/2024		3/11/2024	
4/12/2023	0	5/12/2023	0.35	6/12/2023	0.23	7/12/2023	0	8/12/2023	0	9/12/2023	0	10/12/2023	0	11/12/2023	0	12/12/2023		1/12/2024		2/12/2024		3/12/2024	
4/13/2023	0	5/13/2023	0.8	6/13/2023	0	7/13/2023	0	8/13/2023	1.27	9/13/2023	0	10/13/2023	0	11/13/2023	0	12/13/2023		1/13/2024		2/13/2024		3/13/2024	
4/14/2023	0	5/14/2023	0.2	6/14/2023	0	7/14/2023	0	8/14/2023	0.1	9/14/2023	0	10/14/2023	0	11/14/2023	0	12/14/2023		1/14/2024		2/14/2024		3/14/2024	
4/15/2023	0	5/15/2023	1.81	6/15/2023	0.02	7/15/2023	0.01	8/15/2023	0	9/15/2023	0	10/15/2023	0	11/15/2023	0	12/15/2023		1/15/2024		2/15/2024		3/15/2024	
4/16/2023	0.01	5/16/2023	0	6/16/2023	0.5	7/16/2023	1.05	8/16/2023	0	9/16/2023	0	10/16/2023	0	11/16/2023	0	12/16/2023		1/16/2024		2/16/2024		3/16/2024	
4/17/2023	0	5/17/2023	0	6/17/2023	0	7/17/2023	0	8/17/2023	0	9/17/2023	0	10/17/2023	0	11/17/2023	0	12/17/2023		1/17/2024		2/17/2024		3/17/2024	
4/18/2023	0	5/18/2023	0	6/18/2023	0	7/18/2023	0	8/18/2023	0	9/18/2023	0	10/18/2023	0	11/18/2023	0	12/18/2023		1/18/2024		2/18/2024		3/18/2024	
4/19/2023	0	5/19/2023	0	6/19/2023	0.85	7/19/2023	0.5	8/19/2023	0	9/19/2023	0	10/19/2023	0	11/19/2023	0	12/19/2023		1/19/2024		2/19/2024		3/19/2024	
4/20/2023	0	5/20/2023	0	6/20/2023	0	7/20/2023	0	8/20/2023	0	9/20/2023	0	10/20/2023	0.28	11/20/2023	0	12/20/2023		1/20/2024		2/20/2024		3/20/2024	
4/21/2023	0	5/21/2023	0	6/21/2023	0	7/21/2023	0	8/21/2023	0	9/21/2023	0	10/21/2023	0	11/21/2023	2.2	12/21/2023		1/21/2024		2/21/2024		3/21/2024	
4/22/2023	1.31	5/22/2023	0	6/22/2023	0	7/22/2023	0	8/22/2023	0	9/22/2023	0	10/22/2023	0	11/22/2023	0	12/22/2023		1/22/2024		2/22/2024		3/22/2024	
4/23/2023	0	5/23/2023	0	6/23/2023	0	7/23/2023	0	8/23/2023	0	9/23/2023	0	10/23/2023	0	11/23/2023	0	12/23/2023		1/23/2024		2/23/2024		3/23/2024	
4/24/2023	0	5/24/2023	0	6/24/2023	0.09	7/24/2023	0	8/24/2023	0	9/24/2023	0	10/24/2023	0	11/24/2023	0	12/24/2023		1/24/2024		2/24/2024		3/24/2024	
4/25/2023	0	5/25/2023	0	6/25/2023	0	7/25/2023	0	8/25/2023	0	9/25/2023	0	10/25/2023	0	11/25/2023	0	12/25/2023		1/25/2024		2/25/2024		3/25/2024	
4/26/2023	0	5/26/2023	0	6/26/2023	0	7/26/2023	0	8/26/2023	0	9/26/2023	0	10/26/2023	0	11/26/2023	0	12/26/2023		1/26/2024		2/26/2024		3/26/2024	
4/27/2023	0	5/27/2023	0	6/27/2023	0	7/27/2023	0	8/27/2023	0.14	9/27/2023	0	10/27/2023	0	11/27/2023	0	12/27/2023		1/27/2024		2/27/2024		3/27/2024	
4/28/2023	0.65	5/28/2023	0	6/28/2023	0	7/28/2023	0	8/28/2023	0.69	9/28/2023	0.03	10/28/2023	0	11/28/2023	0	12/28/2023		1/28/2024		2/28/2024		3/28/2024	
4/29/2023	0	5/29/2023	0	6/29/2023	0	7/29/2023	0	8/29/2023	0	9/29/2023	0.97	10/29/2023	0	11/29/2023	0	12/29/2023		1/29/2024		2/29/2024		3/29/2024	
4/30/2023	0	5/30/2023	0	6/30/2023	0.25	7/30/2023	1.8	8/30/2023	0	9/30/2023	0	10/30/2023	0	11/30/2023	0	12/30/2023		1/30/2024				3/30/2024	
		5/31/2023	0			7/31/2023	0	8/31/2023	0			10/31/2023	0			12/31/2023		1/31/2024				3/31/2024	
	1.97		5.19		2.29		6.64		4.97		1		0.57		2.73		0		0		0		0

TOTAL DAYS WITH RAIN GREATER THAN 0.1

Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA	Base	NOAA
7	2	7	5	6	6	7	7	5	7	4	1	5	2	6	2	11	0	12	0	11	0	8	0

DRY-OUT DAYS																							
	2		2		3		7		4		1		0		2								

Claimable Days (NOAA + Dry-Out Exceeds Baseline)																							
4	0	7	0	9	3	14	7	11	6	2	0	2	0	4	0	0	0	0	0	0	0	0	0

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Record of Climatological Observations

These data are quality controlled and may not be identical to the original observations.

Generated on 11/28/2023

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 521 ft. Lat: 36.3817° N Lon: 87.2483° W

Station: **CLARKSVILLE 13.6 SSE, TN US US1TNMT0085**

Observation Time Temperature: Unknown Observation Time Precipitation: Unknown

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		"Soil Temperature (F)"					
			"24 Hrs. Ending at Observation Time"			24 Hour Amounts Ending at Observation Time				At Obs. Time			4 in. Depth			8 in. Depth		
			Max.	Min.	At Obs.	Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2023	06	01				0.02												
2023	06	02				0.08												
2023	06	03				0.00		0.0										
2023	06	04				0.00		0.0										
2023	06	05				0.00		0.0										
2023	06	06				0.00		0.0										
2023	06	07				0.00		0.0										
2023	06	08				T												
2023	06	09				0.00		0.0										
2023	06	10				0.00		0.0										
2023	06	11				0.00		0.0										
2023	06	12				0.12												
2023	06	13				0.00		0.0										
2023	06	14				0.00		0.0										
2023	06	15				0.02												
2023	06	16				0.50												
2023	06	17				0.00		0.0										
2023	06	18				0.00		0.0										
2023	06	19				0.36												
2023	06	20				0.05												
2023	06	21				0.23												
2023	06	22				0.22												
2023	06	23				T												
2023	06	24				0.09												
2023	06	25				T												
2023	06	26				0.00		0.0										
2023	06	27				0.00		0.0										
2023	06	28				0.00		0.0										
2023	06	29				0.00		0.0										
2023	06	30				0.44												
		Summary	0	0		2.13												

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCEI's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Record of Climatological Observations

These data are quality controlled and may not be identical to the original observations.

Generated on 09/25/2023

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 392 ft. Lat: 36.3211° N Lon: 87.2218° W

Station: **CHEATHAM LOCK AND DAM, TN US USC00401663**

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		"Soil Temperature (F)"					
			"24 Hrs. Ending at Observation Time"			24 Hour Amounts Ending at Observation Time				At Obs. Time			4 in. Depth			8 in. Depth		
			Max.	Min.	At Obs.	Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2023	08	01																
2023	08	02	91	62	62	0.00												
2023	08	03	83	62	69	0.04												
2023	08	04	84	66	73	1.32												
2023	08	05	83	66	71	0.00		0.0		0.0								
2023	08	06	87	71	72	0.60		0.0		0.0								
2023	08	07	91	72	76	0.04		0.0		0.0								
2023	08	08	85	65	66	0.00		0.0		0.0								
2023	08	09																
2023	08	10																
2023	08	11																
2023	08	12																
2023	08	13																
2023	08	14																
2023	08	15	88	66	67	0.00		0.0		0.0								
2023	08	16	82	60	60	0.00		0.0		0.0								
2023	08	17	81	60	65	0.00		0.0		0.0								
2023	08	18	85	65	73	0.00		0.0		0.0								
2023	08	19																
2023	08	20																
2023	08	21	92	71	73	0.00		0.0		0.0								
2023	08	22	95	73	73	0.00		0.0		0.0								
2023	08	23	96	72	73	0.00		0.0		0.0								
2023	08	24																
2023	08	25	99	73	82	0.00		0.0		0.0								
2023	08	26	97	75	81	0.00		0.0		0.0								
2023	08	27																
2023	08	28																
2023	08	29	84	67	67	0.00		0.0		0.0								
2023	08	30	86	60	61	0.00		0.0		0.0								
2023	08	31	76	57	57	0.00												
		Summary	88	66		2.00												

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCEI's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Record of Climatological Observations

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Generated on 11/28/2023

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 521 ft. Lat: 36.3817° N Lon: 87.2483° W

Station: **CLARKSVILLE 13.6 SSE, TN US US1TNMT0085**

Observation Time Temperature: Unknown Observation Time Precipitation: Unknown

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		"Soil Temperature (F)"					
			"24 Hrs. Ending at Observation Time"		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time			4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2023	08	01				0.00		0.0										
2023	08	02				0.00		0.0										
2023	08	03				0.03												
2023	08	04				1.56												
2023	08	05				0.18												
2023	08	06				0.45												
2023	08	07				0.02												
2023	08	08				0.00		0.0										
2023	08	09				0.00		0.0										
2023	08	10				0.75												
2023	08	11				0.02												
2023	08	12				0.00		0.0										
2023	08	13				1.27												
2023	08	14				0.10												
2023	08	15				0.36												
2023	08	16				0.00		0.0										
2023	08	17				0.00		0.0										
2023	08	18				0.00		0.0										
2023	08	19				0.00		0.0										
2023	08	20				0.00		0.0										
2023	08	21				0.00		0.0										
2023	08	22				0.00		0.0										
2023	08	23				0.00		0.0										
2023	08	24				0.00		0.0										
2023	08	25				0.00		0.0										
2023	08	26				0.00		0.0										
2023	08	27				0.14												
2023	08	28				0.69												
2023	08	29				0.00		0.0										
2023	08	30				0.00		0.0										
2023	08	31				0.00		0.0										
		Summary	0	0		5.57		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCEI's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

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Generated on 10/25/2023

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 392 ft. Lat: 36.3211° N Lon: 87.2218° W

Station: **CHEATHAM LOCK AND DAM, TN US USC00401663**

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		"Soil Temperature (F)"					
			"24 Hrs. Ending at Observation Time"		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time			4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2023	09	01	86	57	59	0.00												
2023	09	02	88	59	76	0.00		0.0		0.0								
2023	09	03	82	72	76	0.00		0.0		0.0								
2023	09	04																
2023	09	05	89	72	73	0.00		0.0		0.0								
2023	09	06	89	71	73	0.00		0.0		0.0								
2023	09	07																
2023	09	08																
2023	09	09	84	63	65	0.00												
2023	09	10	82	64	65	0.00												
2023	09	11	80	63	64	0.00		0.0		0.0								
2023	09	12	75	62	63	0.00		0.0		0.0								
2023	09	13	74	62	65	0.00		0.0		0.0								
2023	09	14	82	51	53	0.00		0.0		0.0								
2023	09	15	84	51	63	0.00		0.0		0.0								
2023	09	16	71	56	65	0.00		0.0		0.0								
2023	09	17	71	56	60	0.00		0.0		0.0								
2023	09	18	78	53	58	0.00		0.0		0.0								
2023	09	19	77	52	54	0.00		0.0		0.0								
2023	09	20	81	54	58	0.00		0.0		0.0								
2023	09	21	85	58	65	0.00		0.0		0.0								
2023	09	22	70	62	70	0.00		0.0		0.0								
2023	09	23	85	56	58	0.00		0.0		0.0								
2023	09	24	87	53	55	0.00		0.0		0.0								
2023	09	25	87	53	62	0.00		0.0		0.0								
2023	09	26	89	59	60	0.00		0.0		0.0								
2023	09	27	89	60	63	0.00		0.0		0.0								
2023	09	28	87	53	66	0.03												
2023	09	29	88	66	66	0.97												
2023	09	30	88	63	64	0.00		0.0		0.0								
		Summary	83	59		1.00												

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCEI's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

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Generated on 11/28/2023

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 392 ft. Lat: 36.3211° N Lon: 87.2218° W

Station: **CHEATHAM LOCK AND DAM, TN US USC00401663**

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		"Soil Temperature (F)"					
			"24 Hrs. Ending at Observation Time"		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time			4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2023	10	01																
2023	10	02	88	58	61	0.00		0.0		0.0								
2023	10	03	88	61	61	0.00		0.0		0.0								
2023	10	04	88	60	61	0.00		0.0		0.0								
2023	10	05																
2023	10	06																
2023	10	07	72	44	44	0.00												
2023	10	08	77	41	41	0.00												
2023	10	09																
2023	10	10	74	46	47	0.00		0.0		0.0								
2023	10	11	74	46	50	0.00												
2023	10	12																
2023	10	13																
2023	10	14																
2023	10	15																
2023	10	16																
2023	10	17	56	48	51	0.00		0.0		0.0								
2023	10	18	59	42	43	0.00		0.0		0.0								
2023	10	19	73	43	53	0.00		0.0		0.0								
2023	10	20																
2023	10	21	71	44	45	0.00		0.0		0.0								
2023	10	22	81	44	45	0.00		0.0		0.0								
2023	10	23	72	45	47	0.00		0.0		0.0								
2023	10	24																
2023	10	25	75	50	53	0.00		0.0		0.0								
2023	10	26	77	53	55	0.00												
2023	10	27	81	55	67	0.00												
2023	10	28	84	63	65	0.00		0.0		0.0								
2023	10	29	83	61	63	0.00		0.0		0.0								
2023	10	30	67	47	48	0.00		0.0		0.0								
2023	10	31	48	30	31	0.00		0.0		0.0								
Summary			74	49		0.00		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCEI's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

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Generated on 11/27/2023

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 521 ft. Lat: 36.3817° N Lon: 87.2483° W

Station: **CLARKSVILLE 13.6 SSE, TN US US1TNMT0085**

Observation Time Temperature: Unknown Observation Time Precipitation: Unknown

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		"Soil Temperature (F)"					
			"24 Hrs. Ending at Observation Time"			24 Hour Amounts Ending at Observation Time				At Obs. Time			4 in. Depth			8 in. Depth		
			Max.	Min.	At Obs.	Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2023	10	01				0.00		0.0										
2023	10	02				0.00		0.0										
2023	10	03				0.00		0.0										
2023	10	04				0.00		0.0										
2023	10	05				0.00		0.0										
2023	10	06				0.29												
2023	10	07				0.00												
2023	10	08				0.00		0.0										
2023	10	09				0.00		0.0										
2023	10	10				0.00		0.0										
2023	10	11				0.00		0.0										
2023	10	12				0.00		0.0										
2023	10	13				0.00		0.0										
2023	10	14				T												
2023	10	15				T												
2023	10	16				T												
2023	10	17				T												
2023	10	18				0.00		0.0										
2023	10	19				0.00		0.0										
2023	10	20				0.28												
2023	10	21				0.00		0.0										
2023	10	22				0.00		0.0										
2023	10	23				0.00		0.0										
2023	10	24				0.00		0.0										
2023	10	25				0.00		0.0										
2023	10	26				0.00		0.0										
2023	10	27				0.00		0.0										
2023	10	28																
2023	10	29																
2023	10	30				0.58												
2023	10	31				0.10												
		Summary	0	0		1.25		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCEI's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

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Generated on 12/21/2023

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 392 ft. Lat: 36.3211° N Lon: 87.2218° W

Station: **CHEATHAM LOCK AND DAM, TN US USC00401663**

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		"Soil Temperature (F)"					
			"24 Hrs. Ending at Observation Time"		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time			4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2023	11	01	51	27	28	0.00		0.0		0.0								
2023	11	02																
2023	11	03																
2023	11	04	67	37	46	0.00		0.0		0.0								
2023	11	05	74	44	45	0.00		0.0		0.0								
2023	11	06	75	44	44	0.00		0.0		0.0								
2023	11	07	77	44	54	0.00		0.0		0.0								
2023	11	08	77	54	54	0.00		0.0		0.0								
2023	11	09	82	54	70	0.00		0.0		0.0								
2023	11	10	70	48	49	0.53		0.0		0.0								
2023	11	11																
2023	11	12																
2023	11	13																
2023	11	14	70	36	37	0.00		0.0		0.0								
2023	11	15	65	37	40	0.00		0.0		0.0								
2023	11	16	70	40	49	0.00		0.0		0.0								
2023	11	17	75	46	64	0.00		0.0		0.0								
2023	11	18	66	42	44	0.00		0.0		0.0								
2023	11	19	56	30	31	0.00		0.0		0.0								
2023	11	20	65	31	46	0.00		0.0		0.0								
2023	11	21	68	46	57	2.20		0.0		0.0								
2023	11	22	57	43	44	0.00		0.0		0.0								
2023	11	23	50	31	31	0.00												
2023	11	24																
2023	11	25	60	35	35	0.00		0.0		0.0								
2023	11	26																
2023	11	27	50	31	31	0.00		0.0		0.0								
2023	11	28	45	28	32	0.00		0.0		0.0								
2023	11	29	40	23	25	0.00		0.0		0.0								
2023	11	30																
Summary			64	39		2.73		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

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"s" This data value failed one of NCEI's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

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Generated on 12/21/2023

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 521 ft. Lat: 36.3817° N Lon: 87.2483° W

Station: **CLARKSVILLE 13.6 SSE, TN US US1TNMT0085**

Observation Time Temperature: Unknown Observation Time Precipitation: Unknown

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		"Soil Temperature (F)"					
			"24 Hrs. Ending at Observation Time"			24 Hour Amounts Ending at Observation Time				At Obs. Time			4 in. Depth			8 in. Depth		
			Max.	Min.	At Obs.	Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2023	11	01				0.00		0.0										
2023	11	02				0.00		0.0										
2023	11	03				0.00		0.0										
2023	11	04				0.00		0.0										
2023	11	05				0.00		0.0										
2023	11	06				0.00		0.0										
2023	11	07				0.00		0.0										
2023	11	08				0.00		0.0										
2023	11	09				0.00		0.0										
2023	11	10				0.10												
2023	11	11				0.00		0.0										
2023	11	12				0.00		0.0										
2023	11	13				0.00		0.0										
2023	11	14				0.00		0.0										
2023	11	15				0.00		0.0										
2023	11	16				0.00		0.0										
2023	11	17				0.00		0.0										
2023	11	18				0.02												
2023	11	19				0.00		0.0										
2023	11	20				0.00		0.0										
2023	11	21				2.10												
2023	11	22				0.01												
2023	11	23				0.00		0.0										
2023	11	24				0.00		0.0										
2023	11	25				0.00		0.0										
2023	11	26				0.00		0.0										
2023	11	27				0.03												
2023	11	28				0.00		0.0										
2023	11	29				0.00		0.0										
2023	11	30				0.00		0.0										
		Summary	0	0		2.26		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

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"s" This data value failed one of NCEI's quality control tests. "At Obs." = Temperature at time of observation

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REEVES YOUNG

Kaleb Huling
Civil & Environnemental Consultants, Inc.
117 Seaboard Lane, Suite E-100
Franklin, TN 37067

PCO - 001
Subject: Unsuitable Soil Allowance Overrun
Ashland City WWTP

Dear Mr. Huling,

Attached is the additional cost over and above the allowance items for undercut of unsuitable soils and backfill with crushed stone. Please note that the total amount of undercut and backfill of crushed stone was 3,955.33 CY. The estimated quantities, unit rates, and amounts of the original allowance items are outlined in the attached cost breakdown documentation.

Total Additional Cost: $9,596.45
Total Additional Days: 5 Days

Please feel free contact me should you have any questions.

Sincerely,

Ben Hanson
Reeves Young - Project Manager

Project: **Ashland City WWTP** PCO# 001 Sheet 1 Of 1
DATE OF WORK: **TBD** CONTRACTOR: **Reeves Young**
DESCRIPTION OF WORK: Unsuitable Soil Allowance Overrun. Reference "9.26.23 - Backup for Unsuitables" document
for breakdown of cost increase

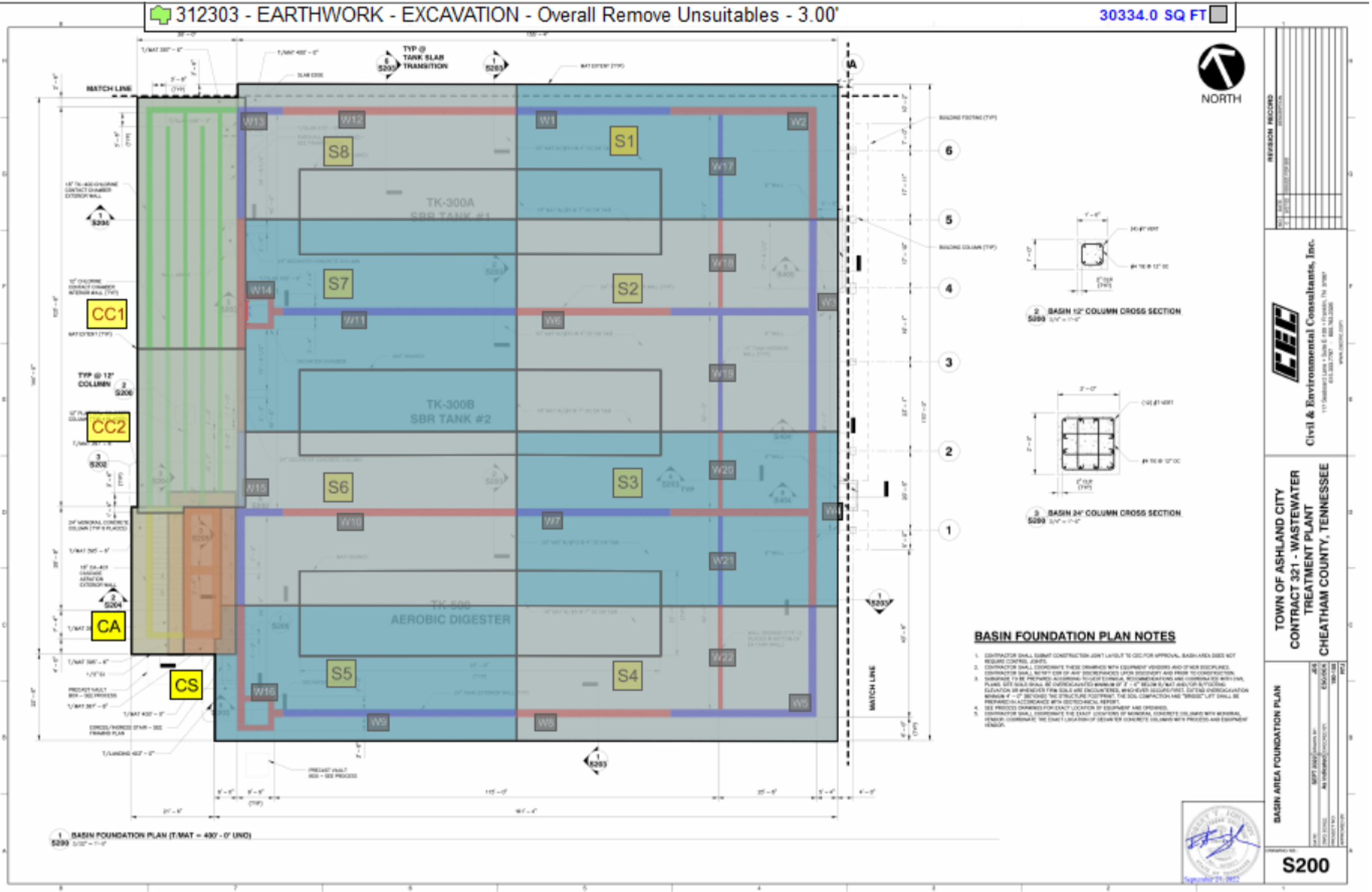
Reeves Young

DESCRIPTION	QTY	UM	MATERIAL		MANHOURS		LABOR		EQUIPMENT		SUB-CONTRACT		TOTAL
			UNIT RATE	EXT	UNIT RATE	EXT	RATE	EXT.	UNIT RATE	EXT	UNIT RATE	EXT	
Labor/SUB													
Total Actual Undercut	3955	CY	15	$ 59,329.95		$ -		$ -		$ -		$ -	$ 59,329.95
Total Actual Crushed Stone Refill	3955	CY	50	$ 197,766.50		$ -		$ -		$ -		$ -	$ 197,766.50
Estimated Undercut	3500	CY	-15	$ (52,500.00)		$ -		$ -		$ -		$ -	$ (52,500.00)
Estimated Crushed Stone Refill	2500	CY	-50	$ (125,000.00)		$ -		$ -		$ -		$ -	$ (125,000.00)
Estimated Bridge Lift	1000	CY	-70	$ (70,000.00)		$ -		$ -		$ -		$ -	$ (70,000.00)
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL LABOR													$ 9,596.45
Equipment / Materials													
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL EQUIPMENT AND MATERIALS													$ -
SUBTOTAL 1													**$ 9,596.45**
TAX @ 9.75%				$ -									$ -
Safety & Consumables (5% OF Labor)								$ -					$ -
SUBTOTAL 2				$ 9,596.45		0.00		$ -		$ -		$ -	**$ 9,596.45**
MARK UP ON LABOR, MATERIALS, & EQUIPMENT (15%)													$ -
MARK UP ON SUBCONTRACTOR (5% OF SUBCONTRACTOR)													$ -
SUBTOTAL COST													**$ 9,596.45**
BOND & INSURANCE (1.5%)													
GRAND TOTAL													**$ 9,596.45**

Ashland City WWTP

312303 - EARTHWORK - EXCAVATION - Overall Remove Unsuitables - 3.00'

30334.0 SQ FT



BASIN FOUNDATION PLAN NOTES

1. CONTRACTOR SHALL SUBMIT CONSTRUCTION JOINT LAYOUT TO CEC FOR APPROVAL. BASIN AREA S303 NOT REQUIRE CONTROL JOINTS.
2. CONTRACTOR SHALL COORDINATE THESE DRAWINGS WITH EQUIPMENT VENDORS AND OTHER DISCIPLINES. CONTRACTOR SHALL NOTIFY CEC OF ANY DISCREPANCIES UPON DISCOVERY AND PRIOR TO CONSTRUCTION.
3. SUBGRADE TO BE PREPARED ACCORDING TO GEOTECHNICAL RECOMMENDATIONS AND COORDINATED WITH CIVIL PLANS. SITE SOILS SHALL BE OVEREXCAVATED MINIMUM OF 3' - 0" BELOW BOTTOM MAT ELEVATION OR WHENEVER FILL SOILS ARE ENCOUNTERED, WHICHEVER OCCURS FIRST. EXTEND OVEREXCAVATION MINIMUM 4' - 0" BEYOND THE STRUCTURE FOOTPRINT. THE SOIL COMPACTION AND "BRIDGE" LIFT SHALL BE PREPARED IN ACCORDANCE WITH GEOTECHNICAL REPORT.
4. SEE PROCESS DRAWINGS FOR EXACT LOCATION OF EQUIPMENT AND OPENINGS.
5. CONTRACTOR SHALL COORDINATE THE EXACT LOCATIONS OF MONORAIL CONCRETE COLUMNS WITH MONORAIL VENDOR. COORDINATE THE EXACT LOCATION OF DEVICES FOR CONCRETE COLUMNS WITH PROCESS AND EQUIPMENT VENDOR.

REVISION RECORD

Civil & Environmental Consultants, Inc.

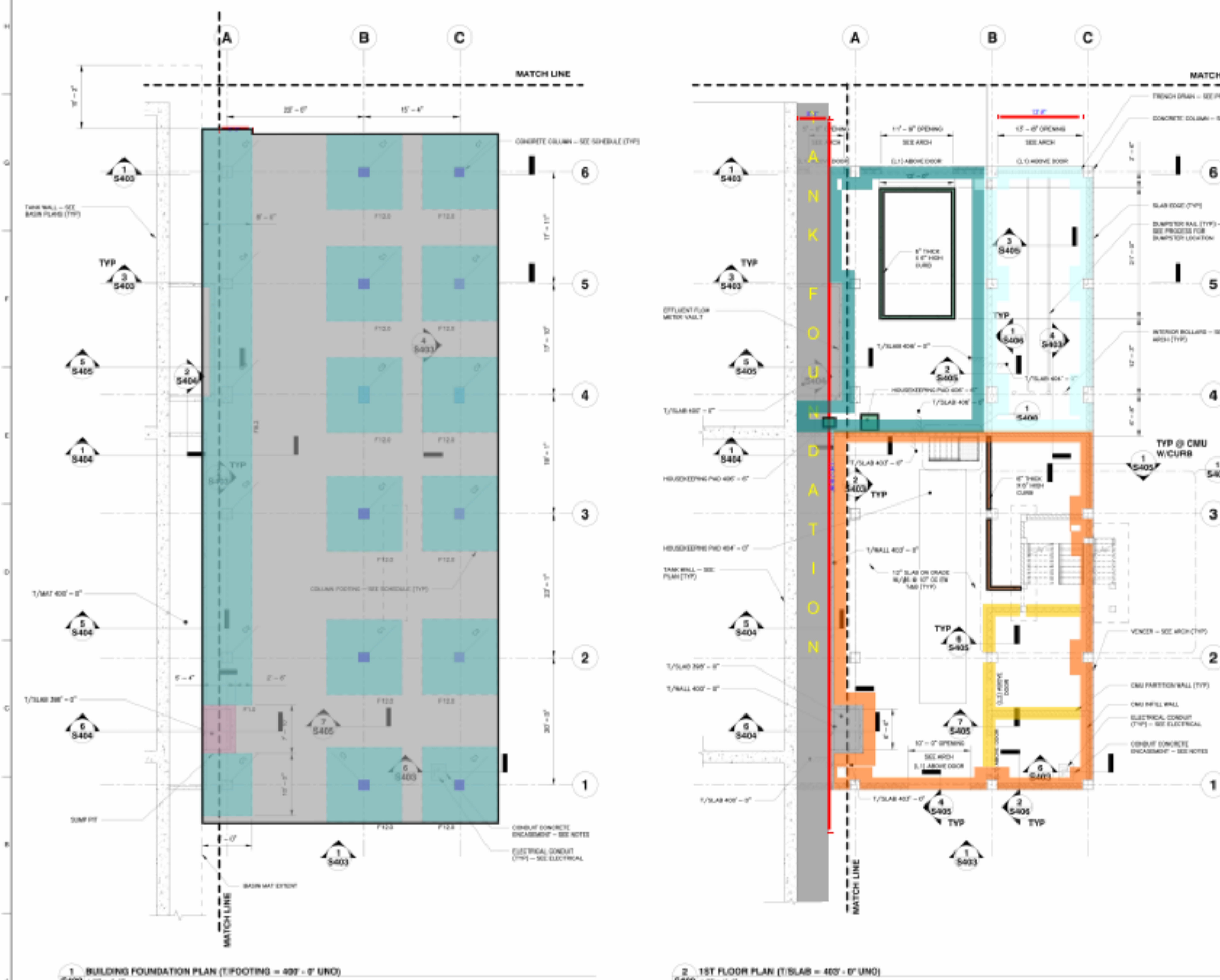
TOWN OF ASHLAND CITY
CONTRACT 321 - WASTEWATER
TREATMENT PLANT
CHEATHAM COUNTY, TENNESSEE

BASIN AREA FOUNDATION PLAN

S200

312303 - EARTHWORK - EXCAVATION - Overall Remove Unsuitables - 3.00'

5264.2 SQ FT



1 BUILDING FOUNDATION PLAN (T/FOOTING = 400' - 0" UNO)
S400 1/8" = 1'-0"

2 1ST FLOOR PLAN (T/SLAB = 403' - 0" UNO)
S400 1/8" = 1'-0"

COLUMN SCHEDULE		
TYPE	SIZE (IN)	REINFORCEMENT
C1	20 x 20	(8) #8 VERT & #4 TIES @ 8" OC
C2	20 x 20	(10) #9 VERT & #4 TIES @ 8" OC
C3	20 x 32	(12)#9 VERT & #4 TIES @ 8" OC
C4	20 x 20	(10) #9 VERT & #4 TIES @ 8" OC
C5	12 x 12	(8) #6 VERT & #4 TIES @ 8" OC

NOTES:
1. FOR ADDITIONAL COLUMN DETAILS, SEE COLUMN CROSS-SECTIONS ON SHEET S402

FOUNDATION SCHEDULE		
TYPE	SIZE	REINFORCEMENT
F8.0	16'-0"x5'-7"x1'-6"	#6 @ 12" OC EW T&B
F8.2	8'-0"xCONTx2'-6"	#7 @ 10" OC EW T&B
F12.0	12'-0"x12'-0"x1'-6"	#7 @ 10" OC EW T&B
TD1.0	1'-0"XCONTX2'-0"	(2) #6 LONG
TS2.0	2'-0"XCONTX1'-6"	(3) #6 LONG & #6 @ 10" TRANS

NOTES:
1. EXTERIOR SLAB TURNDOWN AND INTERIOR THICKENED SLAB AT CMU WALLS NOT SHOWN IN PLAN FOR CLARITY. SEE BUILDING DETAILS FOR MORE INFORMATION.

BUILDING PLAN NOTES

1. INDICATES 8" CMU WALLS W/ #5 VERT @ 24" OC & HOHMANN & BARNARD 220 LADDER TYPE MESH HORIZONTAL REINFORCEMENT @ 16" OC.
2. INDICATES 8" CMU WALLS W/ #5 VERT @ 24" OC & HOHMANN & BARNARD 220 LADDER TYPE MESH HORIZONTAL REINFORCEMENT @ 16" OC ON 6" HIGH CONCRETE CURB.
3. CONTROL JOINTS IN SLAB SHALL BE SPACED NO GREATER THAN 30' APART IN EACH DIRECTION. JOINT LAYOUT SHALL BE GENERALLY SQUARE. CONTRACTOR SHALL SUBMIT CONTROL JOINT PLAN FOR EOR APPROVAL.
4. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE TO FLOOR DRAINS. SEE ARCH DRAWINGS FOR FLOOR DRAIN LOCATIONS AND DETAILS.
5. CONTRACTOR SHALL COORDINATE THESE DRAWINGS WITH EQUIPMENT VENDORS AND OTHER DISCIPLINES. CONTRACTOR SHALL NOTIFY EOR OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO CONSTRUCTION.
6. SUBGRADE TO BE PREPARED ACCORDING TO GEOTECHNICAL RECOMMENDATIONS AND COORDINATED WITH CIVIL PLANS. SITE SOILS SHALL BE OVEREXCAVATED MINIMUM OF 3' - 0" BELOW B/FOOTING ELEVATION OR WHENEVER FIRM SOILS ARE ENCOUNTERED, WHICHEVER OCCURS FIRST. EXTEND OVEREXCAVATION MINIMUM 4' - 0" (BEYOND) THE STRUCTURE FOOTPRINT. THE SOIL COMPACTION AND "BRIDGE" LIFT SHALL BE PREPARED IN ACCORDANCE WITH GEOTECHNICAL REPORT.
7. SEE ARCH DRAWINGS FOR EXACT LOCATIONS OF PARTITION WALLS AND OPENINGS.
8. SEE ELECTRICAL DRAWINGS FOR EXACT CONFIGURATION OF CONDUITS TO BE ENCASED IN CONCRETE COLUMN. COORDINATE THESE DRAWINGS WITH ELECTRICAL DRAWINGS ON EXACT LOCATION AND DIMENSIONS OF CONCRETE ENCASEMENT. CONTRACTOR SHALL NOTIFY EOR OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
9. WHERE LINTEL DESIGNATION IS NOT IDENTIFIED ON PLAN, CONTRACTOR SHALL SELECT APPROPRIATE LINTEL SIZE FROM TYPICAL CMU LINTEL SCHEDULE BASED ON OPENING SIZE.

Civil & Environmental Consultants, Inc.

TOWN OF ASHLAND CITY
CONTRACT 321 - WASTEWATER TREATMENT PLANT
CHEATHAM COUNTY, TENNESSEE

BUILDING PLANS

REVISION RECORD

DRAWING NO.: S400

Unsuitable Soil Allowance vs. Actual Cost Breakdown

Item #4 Undercut Unsuitable Material Allowance	3,500	cy	x	$	15.00	/cy	=	$ 52,500.00
Item #5 Crushed Stone refill Allowance	2,500	cy		$	50.00	/cy	=	$ 125,000.00
Item #6 Bridge Lift Wrapped in Stabilization Fabric Allowance	1,000	cy		$	70.00	/cy	=	$ 70,000.00
Total of Undercut Related Allowances								**$ 247,500.00**

Actual area undercut at SBRs	30,334	sf
Actual area undercut at Operations Building	5,264	sf
Actual Depth of cut	3.00	lf
Calculated volume of removal	106,794.00	cu ft
	3,955.33	cu yd

Actual quantity of undercut unsuitable material	3,955	cy	x	$	15.00	/cy	=	$ 59,329.95
Actual quantity of crushed stone refill material	3,955	cy	x	$	50.00	/cy	=	$ 197,766.50
Total allowed value of calculated quantities								**$ 257,096.45**

Actual - Anticipated = Difference	
$ 9,596.45	The total of Items #3, #4 & #5, plus is the required change to cover difference in the current allowances

REEVES YOUNG

10/25/2023

Kaleb Huling
Civil & Environnemental Consultants, Inc.
117 Seaboard Lane, Suite E-100
Franklin, TN 37067

Subject: PCO-002 - Stainless Steel Pipe Flanges
Ashland City WWTP

Dear Mr. Huling,

This PCO is a deduct based on the allowed change from weld neck flanges to AWWA Class SD 150 lb Plate Flanges.

Total Additional Cost: ($15,250.00)
Total Additional Days: 0 Days

Please feel free contact me should you have any questions.

Sincerely,

Ben Hanson
Reeves Young - Project Manager

REEVES YOUNG

Kaleb Huling
CEC
117 Seaboard Lane, Suite E-100
Franklin, TN 37067

Subject: PCO 003 – PVC Conduit Deduct
Ashland City WWTP

Dear Mr. Huling,

This PCO is a deduct based on the allowed change allowing the electrical subcontractor to utilize SCH 80 PVC Conduit in concrete slabs.

Total Additional Cost: ($29,964.00)
Total Additional Days: 0 Days

Please feel free contact me should you have any questions.

Sincerely,

Ben Hanson, PE
Project Manager
bhanson@reevesyoung.com
(864) 412-6517

REEVES YOUNG

Kaleb Huling
CEC
117 Seaboard Lane, Suite E-100
Franklin, TN 37067

Subject: PCO 004 – Plumbing Changes
Ashland City WWTP

Dear Mr. Huling,

Attached is the proposed cost for Reeves Young to make the changes/additions to the plumbing system as requested and directed by CEC. This scope includes: upsizing the water heater to a 120 gal 24kW water heater, recirculation pump, cold water lines to safety showers, addition of plumbing fixture vents at P-2 and P-4 fixtures, water heater expansion tank, new 4" BFP, removal of 2" BFP, and cost for electrician to run power to upsized water heater and recirculation pump. This Scope of Work is a Lump Sum price. Please see attached documentation for Reeves Young breakdown in costs.

Total Additional Cost: $42,684.69
Total Additional Days: 0 Days

Please feel free contact me should you have any questions.

Sincerely,

Ben Hanson, PE
Project Manager
bhanson@reevesyoung.com
(864) 412-6517

Project **Ashland City WWTP** PCO# 004 Sheet 1 Of 1

DATE OF WORK: **TBD** CONTRACTOR: **Reeves Young**

DESCRIPTION OF WORK: Plumbing changes including: upsizing water heater, reciculation pump and lines for safety showers, provide 3/4" water line to each safety shower, add vent at 2nd floor and at P-2 and P-4 fixtures, thermal expansion tank, 4" BFP, Removal of 2" BFP

Reeves Young

DESCRIPTION	Unit of Msr.	QTY.	MATERIAL		MANHOURS		LABOR		EQUIPMENT		SUB-CONTRACT		TOTAL
			UNIT	EXT.	UNIT	EXT.	RATE	EXT.	UP	EXT	UP	EXT	
Labor/SUB													
Project Manager Coordination	HR	8.00		$ -		$ -	90	$ 720.00		$ -		$ -	$ 720.00
JBS Plumbing Cost	LS	1.00		$ -		$ -		$ -		$ -	$ 33,487.00	$ 33,487.00	$ 33,487.00
Electrical Changes (Trans Elect)	LS	1.00		$ -		$ -		$ -		$ -	$ 5,770.60	$ 5,770.60	$ 5,770.60
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL LABOR													$ 39,977.60
Equipment / Materials													
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
													$ -
SUBTOTAL EQUIPMENT AND MATERIALS													$ -
SUBTOTAL 1													**$ 39,977.60**
TAX @ 9.25%				$ -									$ -
Safety & Consumables (5% OF Labor)								$ 36.00					$ -
SUBTOTAL 2				$ -		0.00		$ 756.00		$ -		$ 39,257.60	**$ 39,977.60**
MARK UP ON LABOR, MATERIALS, & EQUIPMENT (15%)													$ 113.40
MARK UP ON SUBCONTRACTOR (5% OF SUBCONTRACTOR)													$ 1,962.88
SUBTOTAL COST													**$ 42,053.88**
BOND & INSURANCE (1.5%)													**$ 630.81**
GRAND TOTAL													**$ 42,684.69**

Ashland City WWTP

REEVES YOUNG

Kaleb Huling
CEC
117 Seaboard Lane, Suite E-100
Franklin, TN 37067

Subject: PCO 005 – BFP Relocation, FDC Addition, and BFP Hotbox
Ashland City WWTP

Dear Mr. Huling,

Attached is the proposed cost for Reeves Young to make the changes/additions to the 6" potable water backflow preventor location, addition of hotbox for the BFP, new fire sprinkler piping, and addition of Fire Department Connection as requested by CEC and further outlined in RFI 12. This Scope of Work is a Lump Sum price. Please see attached documentation for Reeves Young breakdown in costs.

Total Additional Cost: $35,840.15
Total Additional Days: 5 Days

Please feel free contact me should you have any questions.

Sincerely,

Ben Hanson, PE
Project Manager
bhanson@reevesyoung.com
(864) 412-6517

Project: **Ashland City WWTP** PCO# 005 Sheet 1 Of 1
DATE OF WORK: **TBD** CONTRACTOR: **Reeves Young**
DESCRIPTION OF WORK: Addition of piping for Fire Sprinkler system and FDC. Relocation of 6" BFP and addition of BFP "Hotbox" enclosure. Anticipated to sit on 8" thick Pad

Reeves Young

DESCRIPTION	QTY	UM	MATERIAL		MANHOURS		LABOR		EQUIPMENT		SUB-CONTRACT		TOTAL
			UNIT RATE	EXT	UNIT RATE	EXT	RATE	EXT.	UNIT RATE	EXT	UNIT RATE	EXT	
Labor/SUB													
Project Manager Coordination	4	HR		$ -		$ -	90	$ 360.00		$ -		$ -	$ 360.00
Superintendent	8	HR		$ -		$ -	85	$ 680.00		$ -		$ -	$ 680.00
Operator	10	HR		$ -		$ -	40	$ 400.00		$ -		$ -	$ 400.00
Multiskilled Laborer	20	HR		$ -		$ -	35	$ 700.00		$ -		$ -	$ 700.00
Concrete Slab	2	CY		$ -		$ -		$ -		$ -	$ 1,500.00	$ 3,000.00	$ 3,000.00
Electrical Work (Trans Elect.)	1	LS		$ -		$ -		$ -		$ -	$ 4,185.50	$ 4,185.50	$ 4,185.50
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL LABOR													$ 9,325.50
Equipment / Materials													
Piping Material	1	EA	$3,745.48	$ 3,745.48		$ -		$ -		$ -		$ -	$ 3,745.48
Hotbox Enclosure	1	EA	$ 14,706.32	$ 14,706.32		$ -		$ -		$ -		$ -	$ 14,706.32
FDC	1	EA	$ 1,500.00	$ 1,500.00		$ -		$ -		$ -		$ -	$ 1,500.00
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL EQUIPMENT AND MATERIALS													$ 19,951.80
SUBTOTAL 1													**$ 29,277.30**
TAX @ 9.75%				$ 1,945.30									$ 1,945.30
Safety & Consumables (5% OF Labor)								$ 107.00					$ 107.00
SUBTOTAL 2				$ 21,897.10		0.00		$ 2,247.00		$ -		$ 7,185.50	**$ 31,329.60**
MARK UP ON LABOR, MATERIALS, & EQUIPMENT (15%)													$ 3,621.62
MARK UP ON SUBCONTRACTOR (5% OF SUBCONTRACTOR)													$ 359.28
SUBTOTAL COST													**$ 35,310.49**
BOND & INSURANCE (1.5%)													**$ 529.66**
GRAND TOTAL													**$ 35,840.15**

Ashland City WWTP

REEVES YOUNG

Kaleb Huling
CEC
117 Seaboard Lane, Suite E-100
Franklin, TN 37067

Subject: PCO 007 – Forcemain Bypass at New IPS Location
Ashland City WWTP

Dear Mr. Huling,

Attached is the proposed cost for Reeves Young to install the bypass of the 6" existing forcemain at the existing WWTP. This bypass is necessary in order to be able to install our shoring for the new pump station excavation as well as installation of the pump station itself. This Scope of Work is a Lump Sum price. Please see attached documentation for Reeves Young breakdown in costs.

Total Additional Cost: $3,409.27
Total Additional Days: 0 Days

Please feel free contact me should you have any questions.

Sincerely,

Ben Hanson, PE
Project Manager
bhanson@reevesyoung.com
(864) 412-6517

Project: **Ashland City WWTP** PCO# 7 Sheet 1 Of 1
DATE OF WORK: **TBD** CONTRACTOR: **Reeves Young**
DESCRIPTION OF WORK: Existing forcemain runs through corner of new influent pump station and needs to be relocated in order to construct the new PS

Reeves Young

DESCRIPTION	QTY	UM	MATERIAL		MANHOURS		LABOR		EQUIPMENT		SUB-CONTRACT		TOTAL
			UNIT RATE	EXT	UNIT RATE	EXT	RATE	EXT.	UNIT RATE	EXT	UNIT RATE	EXT	
Labor/SUB													
Project Manager	1	HR		$ -		$ -	90	$ 90.00		$ -		$ -	$ 90.00
Superintendent	4	HR		$ -		$ -	85	$ 340.00		$ -		$ -	$ 340.00
Operator	4	HR		$ -		$ -	40	$ 160.00		$ -		$ -	$ 160.00
Multiskilled Laborer	8	HR		$ -		$ -	35	$ 280.00		$ -		$ -	$ 280.00
	0	EA		$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL LABOR													$ 870.00
Equipment / Materials													
6" C900 Pipe	40	FT	$10.18	$ 407.20		$ -		$ -		$ -		$ -	$ 407.20
6" MJ 90	5	EA	$ 160.35	$ 801.75		$ -		$ -		$ -		$ -	$ 801.75
6" Megalugs	10	EA	$ 62.00	$ 620.00		$ -		$ -		$ -		$ -	$ 620.00
										$ -		$ -	$ -
										$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL EQUIPMENT AND MATERIALS													$ 1,828.95
SUBTOTAL 1													**$ 2,698.95**
TAX @ 9.75%				$ 178.32									$ 178.32
Safety & Consumables (5% OF Labor)								$ 43.50					$ 43.50
Equipment Fuel & Consumables (35% of Equ)										$ -			$ -
SUBTOTAL 2				$ 2,007.27		0.00		$ 913.50		$ -		$ -	**$ 2,920.77**
MARK UP ON LABOR, MATERIALS, & EQUIPMENT (15%)													$ 438.12
MARK UP ON SUBCONTRACTOR (5% OF SUBCONTRACTOR)													$ -
SUBTOTAL COST													**$ 3,358.89**
BOND & INSURANCE (1.5%)													**$ 50.38**
GRAND TOTAL													**$ 3,409.27**

Ashland City WWTP

PCO - 008 - Boring Lengths

Project: **Ashland City WWTP**
DATE OF WORK: Ongoing
DESCRIPTION OF WORK:

PCO# 8 Sheet 1 Of 1
CONTRACTOR: **Reeves Young**

Additional length to boring locations at Sta. 4+48 and 36+57

Reeves Young

DESCRIPTION	QTY	UM	MATERIAL		MANHOURS		LABOR		EQUIPMENT		SUB-CONTRACT		TOTAL
			UNIT RATE	EXT	UNIT RATE	EXT	RATE	EXT.	UNIT RATE	EXT	UNIT RATE	EXT	
Labor/SUB													
24" Bore at Sta. 4+48	0	FT		$ -		$ -		$ -		$ -	$ 715.00	$ -	$ -
6" Bore at Sta. 4+48	0	FT		$ -		$ -		$ -		$ -	$ 375.00	$ -	$ -
24" Bore at Sta. 36+57	30	FT		$ -		$ -		$ -		$ -	$ 715.00	$ 21,450.00	$ 21,450.00
16" Bore at Sta. 36+57	25	FT		$ -		$ -		$ -		$ -	$ 550.00	$ 13,750.00	$ 13,750.00
6" Bore at Sta. 36+57	25	FT		$ -		$ -		$ -		$ -	$ 375.00	$ 9,375.00	$ 9,375.00
				$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL LABOR													$ 44,575.00
Equipment / Materials													
		FT		$ -		$ -		$ -		$ -		$ -	$ -
		EA		$ -		$ -		$ -		$ -		$ -	$ -
		EA		$ -		$ -		$ -		$ -		$ -	$ -
		EA		$ -		$ -		$ -		$ -		$ -	$ -
		HR		$ -		$ -		$ -		$ -		$ -	$ -
				$ -		$ -		$ -		$ -		$ -	$ -
SUBTOTAL EQUIPMENT AND MATERIALS													$ -
SUBTOTAL 1													**$ 44,575.00**
TAX @ 9.75%				$ -									$ -
Safety & Consumables (5% OF Labor)								$ -					$ -
Equipment Fuel & Consumables (35% of Equ)										$ -			$ -
SUBTOTAL 2				$ -		0.00		$ -		$ -		$ 44,575.00	**$ 44,575.00**
MARK UP ON LABOR, MATERIALS, & EQUIPMENT (15%)													$ -
MARK UP ON SUBCONTRACTOR (5% OF SUBCONTRACTOR)													$ 2,228.75
SUBTOTAL COST													**$ 46,803.75**
BOND & INSURANCE (1.5%)													**$ 702.06**
GRAND TOTAL													**$ 47,505.81**

$ 47,472.38

Ashland City WWTP

REEVES YOUNG

Kaleb Huling
CEC
117 Seaboard Lane, Suite E-100
Franklin, TN 37067

Subject: PCO 010 – 16" FM Valve Deduct
Ashland City WWTP

Dear Mr. Huling,

Attached is the proposed deduct in cost based on the removal of the 16" Gate Valve on the 16" Forcemain line as called out on C504.

Total Additional Cost: (10,600.00)
Total Additional Days: 0 Day

Please feel free contact me should you have any questions.

Sincerely,

Ben Hanson, PE
Project Manager
bhanson@reevesyoung.com
(864) 412-6517

REEVES YOUNG

Kaleb Huling
CEC
117 Seaboard Lane, Suite E-100
Franklin, TN 37067

11/30/2023

Subject: PCO 011 – PVC Pipe Coating Deduct
Ashland City WWTP

Dear Mr. Huling,

Attached is the proposed deduct in cost based on the removal of the Coating Requirement for the PVC Piping per Specification 099000.

Total Additional Cost: (15,700.00)
Total Additional Days: 0 Days

Please feel free contact me should you have any questions.

Sincerely,

Ben Hanson, PE
Project Manager
bhanson@reevesyoung.com
(864) 412-6517