



TECHNICAL COMMITTEE MEETING MINUTES

Wednesday, January 19, 2022

4:30PM

Via VIDEO/TELECONFERENCE

Attendees:

| | |
|-------------------|------------------------------------|
| Merritt Nesin | Chairman, Technical Committee |
| Edward Kelly | Committee Member |
| Steve Bagwin | Committee Member |
| William Brink, PE | Executive Director, WPCA |
| Ann Brown, P.E. | Supervising Engineer, WPCA |
| Robert Pudelka | Plant Supervisor, WPCA |
| Stephen Pietrzyk | Collection System Supervisor, WPCA |

1. Call to Order and Roll Call

M. Nesin called the meeting to order at 4:30PM and announced the attendees as listed above.

2. Approval of December 14, 2022 Meeting Minutes

E. Kelly made a motion to approve the minutes of the December 14, 2022 Technical Committee Meeting, Rev. 1/17/23; seconded by S. Bagwin. Motion carried 3-0-0.

3. Public Comments - None

4. Discussion on Collection System

S. Pietrzyk provided a summary of the Monthly Pump Station and Collection Systems Activities from 12/7/22 to 1/17/23, which is attached and made part of these minutes. He explained that the collection system staff found some open joints in the system near Saddle Rock Road pump station and shared this information with our engineers to be included in the sewer rehab project. He is also negotiating with a homeowner to remove two sump pumps that illegally discharge in to the sanitary sewer system.

5. Discussion on Plant Operations

R. Pudelka reviewed the Monthly Operating Report and Equipment Update with the Committee, which is attached and made part of these minutes. He stated that December was an average month. There was one UV exceedance caused by a gate valve that was frozen. R. Pudelka said that the system seems to experience problems when the temperatures are less than 10°.

6. Update on Engineering Studies and Designs

A. Brown provided the committee with a Capital Projects Update including engineering studies and designs, which is attached and made part of these minutes.

7. Update on Construction Projects

A. Brown provided the committee with a Capital Projects Update including construction projects, which is attached and made part of these minutes. She advised the committee that the Perna Lane Public Information Meeting would be Thursday, January 19 @7:00pm as a Zoom webinar.

8. Old Business - None

9. New Business - None

There being no further issues to discuss, E. Kelly made a motion to adjourn the meeting, seconded by S. Bagwin; motion carried 3-0-0. The meeting adjourned at 4:48PM.

Monthly Activities (12/07/22 to 01/17/23)

Collection and Pump Station Division

Overview of Pump Station and Gravity Collection Systems:

1. Pump station inspections for 24-sanitary sewer and 4-stormwater stations (154)
2. Pump station call-out activities (27)
3. Manhole Inspections (286)
4. Gravity line service calls investigated (13)
5. Private lateral investigations and repairs in City ROW (4)
6. CCTV sanitary sewer lines (1,187 LF)
7. Sewer line cleaning (0.51 miles)

Pump Stations:

1. Performed monthly landscape maintenance activities at pump stations.
2. Exercised portable generators.
3. Performed electrical preventative maintenance inspections at various pump stations.
4. Crews swapped out old fasteners with new fasteners for preparation to install new duck bill on pump #2's discharge line at Cummings Stormwater Pump Station.
5. Crews coordinated with G.A. Fleet Associates and commenced with installing new communications system at Cove Island.

Collection System:

1. Crew marked out public sanitary sewer line on Sea Beach Drive and portion of Ocean Drive East;
2. Crew jetted lines on Atlantic ST., Washington Blvd., Urban ST., Edice Road, Autumn Lane, Seaview Ave., Lanell DR., Fenway ST., and Ocean Drive West.
3. Collection Systems Supervisor in preliminary discussions with property owner of 2241 Shippan Ave. for disconnecting two (2) sump pumps illegally discharging groundwater via private sanitary sewer lateral into public sanitary sewer system.
4. Crews CCTV sewer lines on Saddle Rock Rd. and Ocean Drive West. Through these activities, crews identified areas within these line segments that should be rehabilitated to reduce and/or eliminate infiltration sources into the public sanitary sewer system.

Training:

1. Training two (2) new mechanics in training (MITs) on pump station and collection system work related activities and use of the computer maintenance and management system (CMMS).

Miscellaneous:

1. Continue to work with CDMSmith on the GIS upgrade project.
2. Provided sanitary sewer plan sheet information to various civil engineers and/or contractors working on City development projects
3. Conducted plan reviews for proposed sanitary lateral connections to public sanitary sewer system in viewpermit system.

Overview of Regulatory Compliance:

1. Initial building permit reviews (11)
2. Re-review of building permit applications (26)
3. Sanitary sewer tie-in plan reviews (6)
4. Zoning permit application reviews (2)
5. Initial Food Service Establishment (FSEs) Inspections (9)
6. FSE Follow-up Inspections (10)
7. Notice of violations (NOVs) Issued (1)
8. CTDEEP General Permit plan reviews or applications (0)

Work performed by outside contractors:

1. Vitti Construction completed private lateral repair in City ROW; 40 Willowbrook Ave.
2. Vitti Construction completed private lateral repair in City ROW; 72 Soundview Ave.
3. Vitti Construction completed private lateral repair in City ROW; 363 Oaklawn Ave.
4. Vitti Construction completed private lateral repair in City ROW; 111 Coolidge Ave.
5. Onevac traced and located damaged private lateral in City ROW for repair; 40 Willowbrook Ave., 72 Soundview Ave., and 111 Coolidge Ave.



JANUARY 2023 TECHNICAL COMMITTEE REPORT

| Monthly Operating Report data: | DECEMBER Results | | | Permit Limit |
|--------------------------------|------------------|------------------|----------------------------|-------------------|
| | This month (DEC) | Last month (NOV) | Historical DEC Monthly AVG | |
| Q (FLOW) DAILY AVG MGD | 14.9 | 13.0 | 16.6 | 24 MGD DESIGN AVG |
| Q PEAK FLOW RATE MGD | 26.8 | 23.8 | 31.1 | 58 MGD MAX AVG |
| BOD INFLUENT AVG MG/L | 237 | 297 | 222 | |
| BOD INFLUENT AVG LBS/D | 29,451 | 32,201 | | |
| BOD EFFLUENT AVG MG/L | 3 | 2 | 4 | |
| BOD EFFLUENT MAX MG/L | 3 | 4 | | 20 mg/L |
| BOD REMOVAL % | 98.8 | 99.2 * | 98.2 | 85% |
| TSS INFLUENT AVG MG/L | 304 | 452 | 300 | |
| TSS INFLUENT AVG LBS/D | 37,777 | 49,006 | | |
| TSS EFFLUENT AVG MG/L | 7 | 5 | 11 | |
| TSS EFFLUENT MAX MG/L | 8 | 8 | | 20 MG/l |
| TSS REMOVAL % | 97.6 | 98.7 | 96.1 | 85% |
| TOTAL N INFLUENT AVG MG/L | 34.7 | 41.7 | 33.7 | |
| TOTAL N INFLUENT AVG LBS/D | 4312 | 4521 | 4506 | |
| TOTAL N EFFLUENT AVG MG/L | 2.90 | 2.50 | 3.39 | |
| TOTAL N EFFLUENT LBS/D | 351 | 274 | 473 | 926 LBS/D |
| N REMOVAL % | 91.6 | 94.0 | 89.4 | |
| TOTAL P INFLUENT AVG MG/L | 4.25 | 6.35 | 4.79 | |
| TOTAL P EFFLUENT AVG MG/L | 0.22 * | 0.24 * | 0.7 | |
| P REMOVAL % | 94.8 | 96.2* | 85.1 | |
| UV EXCEEDANCES <30 mJ/cm2 | 1 | 0 | | |

* Tied or surpassed best historical performances for the month *

Plant Equipment Update

| | |
|----------------------|---|
| BFPs | Replaced torn belt |
| Methanol Sump | Repaired ruptured lines from freeze |
| UV Eye Wash | Repaired ruptured lines from freeze |
| Washpactor/Grinder | PLC knocked out by power bump, manual cleanup and reset |
| Primary Pumps | Install new belts |
| Degritter Classifier | Replaced piping and liner in cone |
| STP line | Jet and Vac three pipes to sludge transfer line |

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2022 Year in Review

Another year has come and gone! Unfortunately, we have lost some of our valued co-workers and friends to retirement -- and they are missed! We welcome all the new staff members and appreciate the measures they are taking to get up to speed with operating and maintaining a complex wastewater treatment plant. And we thank all of our senior staff members for all the time and energy you have put into mentoring the new employees. We just may be the least experienced department for a municipality, with 60% of the O&M staff with less than four years' experience, but make up for it with vigor and attitude!!! Congratulate yourselves on a job well done. We thank all of the staff members here at the WPCA.

2022 is the first full year where we can measure statistically the effectiveness of the 2019-2021 upgrade to the RSPS, blower and aeration controls, and the UV projects. The results look promising.

The improvements to the aeration controls and blower efficiencies have led to improved denitrification and energy savings. Electrical use in the plant is down and the timing could not be better as energy costs are at all-time highs. In FY22 we saved approximately \$360,000 in electrical costs by using 2.5 million less kWh than in recent years. DO control, and the new extended primary anoxic zones, have produced the lowest nitrate levels in the fifth zone which paces the methanol addition. Our use of methanol is the lowest in plant history, using 57% less than historical average, and has saved us \$181,000 this year alone, all while producing the lowest concentration of total nitrogen in our effluent.

The UV upgrade would have to be considered a major success with only having three events all year where the system reported being under dose -- for even a second in time! All three events occurring on the three coldest days of the year and subsequently causing equipment to fault out. The system was able to provide over eleven months continuous service without a low dose exceedance. We should expect the upgrades to continue to provide savings and excellent process control well into the future.

The plant has set some new milestones for 2022! As you know, some we can control, our effluent, and others, like flow and influent, we cannot. Here are some statistical highlights from the Lab and our Historical MOR (2006—2022) data for comparisons:

2022 Historical Highlights

- **Avg Daily Flow of 14.6 MGD** -- #1 lowest flow for the calendar year. (His. avg 16.3)
- **Final Effluent Total Nitrogen Concentration 1.97 mg/l** -- #1 lowest yearly average. (Hist. avg 3.11)
- **Final Effluent Total Nitrogen Removal 94.5%** -- #1 highest yearly average. (Hist. avg 89.9%)
- **Final Effluent Total Nitrogen 238 Pounds per Day** --- #1 lowest yearly average (Hist. avg 439)
- **Nitrate Concentration Levels in Zones 1-5 & 2-5 2.43mg/l** -- #1 lowest yearly average. (Hist. avg 6.6 mg/l.)
- **Influent Total Phosphorus Concentration 5.24 mg/l** -- #1 highest yearly average. (Hist. avg 4.66)
- **Final Effluent Total P Removal 93.2%** -- #1 highest yearly average. (Hist. avg 84.8%)
- **Influent BOD Concentration 274 mL/g** -- #1 highest yearly average. (Hist. avg 223)
- **Influent BOD Loadings 33,332 pounds per day** -- #2 highest yearly average, the highest in 15 yrs. (Hist. avg 30,167)
- **Final Effluent BOD Concentration 2 mg/l** -- #1 Tied for lowest yearly average. (Hist. avg 4)
- **Final Effluent BOD Removal 99.1%** -- #1 highest yearly average. (Hist. avg 98.1%)
- **Influent TSS Concentration 391 mg/l** -- #1 highest yearly average. (Hist. avg 310)
- **Influent TSS Loadings 47,647 pounds per day** -- #1 highest yearly average. (Hist. avg 41,819)
- **Final Effluent TSS Removal 98.6%** -- #1 highest yearly average. (Hist. avg 96.5%)
- **Final Effluent TSS Concentration 5 mL/g** -- #1 Tied for lowest yearly average. (Hist. avg 9)



**UPDATE OF CAPITAL PROJECTS
TECHNICAL COMMITTEE MEETING
January 18, 2023**

1. UPDATE ON ENGINEERING STUDIES AND DESIGNS

a. Infiltration Inflow Study

We received bids on December 20, 2022. Two firms' submitted bids and we are recommending award to the lowest qualified bidder. We will meet with them to begin the project.

b. Sludge Management Plan

We are scheduled to visit a site in Camden NJ to see their digester. This visit is scheduled for mid-February.

c. Plant Water, Return Activated Sludge (RAS) and Waste Activated Sludge (WAS)

Gannett Fleming is working on the preliminary design report for the proposed system. WPCA is providing them with information about the plant operations and existing equipment so they can prepare a report.

d. RFQ for Evaluation of the Alvord Lane, Commerce Rd and Saddle Rock Pump Stations

We met with the selected a firm, Tighe and Bond, to review their scope of services and fees. They will submit their fee proposal shortly that we will forward to the board for approval.

e. RFP for the Design and Supply of a Standby Generator at Clay Hill Pump Station

We have the necessary permits for this project and can now go out to bid to size and supply the generator. Purchasing to issue a bid date.

f. Perna Lane, Phase I Collection Sewers

The Public Information Meeting is scheduled for Thursday, 1/19 @ 7:00PM. This will be a Zoom Webinar. At this meeting, we will have the design engineers explain the changes to the design. We will present the costs to the homeowners and answer questions. WPCA will reach out to the property owner to discuss the location for the pump station.

g. RFP for Architectural Services for New Building for Collection System Staff and SWPCF Existing Locker Room Renovations

We will be issuing a RFP for architectural services to design a small building for the collection system staff and the electricians - 12 employees. This building will include offices and a small locker room with showers. We rejected all bids for the existing locker room renovations due to the costs proposed. We will included the existing locker room renovations in this RFP so we may get more competitive pricing.

h. Structural Evaluation of the Columns in the Sludge Dewatering Building

A report with plans, sections and details of the column repairs should be send this week. Once received, we will go out to bid.



2. UPDATE ON CONSTRUCTION PROJECTS

a. **Design-Build Standby Generator for the Greenwich Ave. Pump Station**

WPCA, through the City's legal department, has notified the Contractor that WPCA is terminating the Agreement for the stand-by generator. We have asked them to provide to WPCA any documents, engineering plans, technical specifications, and building materials acquired in connection with the project. WE are awaiting a response from the contractor.

b. **Preliminary, Secondary and Disinfection Treatment Improvements**

The project is complete. We will be proceeding with closeout of the project.

c. **Electrical Preventive Maintenance / Arc Flash**

Tighe and Bond reviewed the compiled the information provided by Siemens and have asked for additional information. I am reviewing what is still needed and will forwarded the information to Siemens.

d. **Sludge Degritting System Upgrade**

A Notice to Proceed was sent to CH Nickerson. A pre-construction meeting was held last week. The contractor is preparing submittals for approval. We expect construction to begin in April.

Change Order Log as of 12-14-22

Copy of Change Order log for construction projects is attached. No changes.

Preliminary, Secondary and Disinfection Treatment Improvements (Contractor – CH Nickerson)

Original Value of Contract = \$ 26,751,500.00

Total Approved CO Amount = \$ 3,703,000.43

Contract Sum to Date = \$ 30,454,500.43

Percent of total project = 13.8%

Stamford WPCF Preliminary, Secondary and Disinfection Treatment Improvements
Change Order Summary

| CHN PCCOR No. | CHN PCCOR Date | Description | Contractor Amount | Status | PCO | | | | | | RFI | | RFP | | WCD | |
|---------------|----------------|---|-------------------|----------|-----------------|-----------------------|-------------------------|-----------------------|----------------|---------------|------------|-------------|-----------|-------------|------------|--------------------|
| | | | | | Included in CO# | Total Approved Amount | Approved to Preliminary | Approved to Secondary | Approved to UV | Approved Date | No. | Date Issued | No. | Date Issued | No. | Date Issued |
| NA | NA | Replace the Issue for Bidding Specification Sections 00520 - Agreement and 00800 - Supplementary Conditions with the Attached Specifications | \$ - | Approved | 1 | \$ - | | | | | 5/10/2019 | | | | | |
| 01 (rev) | 6/21/2019 | Programming Services Provider / Integration Services - Revised | \$ 194,922.00 | Approved | 2 | \$ 194,922.00 | \$ 48,340.00 | \$ 110,000.00 | \$ 36,582.00 | | 7/9/2019 | | | | | |
| 02 (rev) | 1/20/2020 | Additional Plank Support Framing & Planking at UV Basin 1 Outfall | \$ 35,257.23 | Approved | 3 | \$ 35,257.23 | | | \$ 35,257.23 | | 2/27/2020 | | | H-01 | 11/19/2019 | |
| 03 (rev) | 10/25/2020 | Changes to Moment Connection at UV Canopy | \$ 4,076.36 | Approved | 3 | \$ 4,076.36 | | | \$ 4,076.36 | | 12/12/2019 | H-019 | | | | |
| 05 | 11/18/2019 | UV Pilasters | \$ 2,689.46 | Approved | 3 | \$ 2,689.46 | | | \$ 2,689.46 | | 11/19/2019 | | | | | |
| 09 | 1/28/2020 | Remove and Reinstal drain piping and electrical conduionboxes in Blower Room to install new fire rated wall. Plans did not call for this work | \$ 28,473.69 | Approved | 3 | \$ 28,473.69 | | \$ 28,473.69 | | | 4/7/2020 | | | | | W-06 11/20/2019 |
| 11 | 2/21/2020 | Add spool pipe to Septage Area | \$ 1,214.84 | Approved | 3 | \$ 1,214.84 | \$ 1,214.84 | | | | 2/27/2020 | | | | | W-03 11/20/2019 |
| 13 | 3/9/2020 | Additional Rebar at UV Basin 1 | \$ 21,447.91 | Approved | 3 | \$ 21,447.91 | | | \$ 21,447.91 | | 3/15/2020 | | | | | H-01 12/18/2019 |
| 17 | 4/14/2020 | UV Power Panel Relocation | \$ 23,740.56 | Approved | 3 | \$ 23,740.56 | | | \$ 23,740.56 | | | H-095 | 4/8/2020 | | | |
| 14 | 3/18/2020 | Relocate Generator and Modify Bridge Crane per Building Department Request | \$ 83,080.40 | Approved | 4 | \$ 83,080.40 | | \$ 83,080.40 | | | 8/19/2020 | | | | | |
| 18 | 6/19/2020 | Replace Missing Hardware @ AT Bridges | \$ 5,082.33 | Approved | 4 | \$ 5,082.33 | | \$ 5,082.33 | | | 8/19/2020 | | | | | |
| 19 | 7/14/2020 | Provide Additional Thin Client Licensing & Integrate Existing Mixers per City Request | \$ 23,618.32 | Approved | 4 | \$ 23,618.32 | | \$ 19,287.40 | | | | | | | | |
| 16 | 4/4/2020 | Credit for Redundant Breaker @ ATS | \$ (17,296.74) | Approved | 5 | \$ (17,296.74) | | \$ (17,296.74) | | | 9/23/2020 | | | | | |
| 21 | 8/7/2020 | Add External Breaker for RSP-2 | \$ 9,061.48 | Approved | 5 | \$ 9,061.48 | \$ 9,061.48 | | | | 9/23/2020 | | | | | |
| 24 | 8/26/2020 | Additional Tags for The GE Historian | \$ 8,590.02 | Approved | 5 | \$ 8,590.02 | \$ 2,863.34 | \$ 2,863.34 | \$ 2,863.34 | | 8/26/2020 | H-164 | 8/19/2020 | | | |
| 25 | 9/14/2020 | Replace UV Channel #3 Inlet Gate | \$ 37,004.86 | Approved | 5 | \$ 37,004.86 | | | \$ 37,004.86 | | 9/15/2020 | | | H-02 | 9/3/2020 | |
| 27 | 9/15/2020 | Install Missing Wiring to MX 60-6 & 60-12 | \$ 16,235.90 | Approved | 5 | \$ 16,235.90 | | \$ 16,235.90 | | | 9/23/2020 | | | | | |
| 28 | 9/15/2020 | New Sampler Location at UV | \$ 5,232.89 | Approved | 5 | \$ 5,232.89 | | | \$ 5,232.89 | | 9/17/2020 | H-154 | 9/8/2020 | | | |
| 29 | 9/22/2020 | Replace Missing WML support rods in Aeration tank 1-4E/4W | \$ 4,869.75 | Approved | 5 | \$ 4,869.75 | | \$ 4,869.75 | | | 9/23/2020 | | | | | |
| 31 | 9/22/2020 | Test Soils for City Storage tent | \$ 1,525.86 | Approved | 5 | \$ 1,525.86 | | \$ 1,525.86 | | | 9/23/2020 | | | | | |
| 20 | 8/21/2020 | Cut Sumps in Aeration Tank Floors | \$ 37,083.78 | Approved | 6 | \$ 37,083.78 | | \$ 37,083.78 | | | 10/5/2020 | | | | | |

Stamford WPCF Preliminary, Secondary and Disinfection Treatment Improvements
Change Order Summary

| | | | | | | | | | | | | | | | | |
|----------|------------|--|---------------|----------|---|---------------|--------------|---------------|--|------------|-----------|----------|------|------------|--|--|
| 30 | 9/22/2020 | Add Cable Tray and Bus Supports | \$ 57,017.98 | Approved | 6 | \$ 57,017.98 | | \$ 57,017.98 | | | 12/2/2020 | | | | | |
| 33 | 10/2/2020 | Replace Failing Straub Coupling (Existing) | \$ 5,513.98 | Approved | 6 | \$ 5,513.98 | | \$ 5,513.98 | | | | | | | | |
| 40 | 11/2/2020 | Add Supports to Existing Pipe in Blower room | \$ 16,024.43 | Approved | 6 | \$ 16,024.43 | | \$ 16,024.43 | | 11/11/2020 | | | | | | |
| 36 | 10/28/2020 | Paint UV Steel Walkway at Basins 1 & 2 - Option 1 | \$ 12,145.53 | Approved | 6 | \$ 12,145.53 | | \$ 12,145.53 | | 12/2/2020 | | | | | | |
| 37 (rev) | 12/8/2020 | Trench Cover at Spare Parts Building | \$ 25,055.44 | Approved | 7 | \$ 25,055.44 | | \$ 25,055.44 | | 12/17/2020 | | | H-03 | 10/5/2020 | | |
| 41 (rev) | 12/8/2020 | Canopy Extension and Davit Crane | \$ 36,975.66 | Approved | 7 | \$ 36,975.66 | | \$ 36,975.66 | | 12/17/2020 | | | H-05 | 10/22/2020 | | |
| 42 (rev) | 12/8/2020 | Maintenance Access at UV Electrode Sensors | \$ 16,475.43 | Approved | 7 | \$ 16,475.43 | | \$ 16,475.43 | | 12/17/2020 | RFI-159 | 8/4/2020 | | | | |
| 44 | 12/22/2020 | Electrical Power in Spare Parts Building | \$ 13,554.20 | Approved | 7 | \$ 13,554.20 | | \$ 13,554.20 | | 1/8/2021 | | | H-04 | 10/22/2020 | | |
| 43 | 1/11/2021 | Relocate Fire Alarm Conduit Around Door 1010c | \$ 5,410.15 | Approved | 7 | \$ 5,410.15 | \$ 5,410.15 | | | 1/6/2021 | | | | | | |
| 45 | 1/11/2021 | Increase Conduit Size to CP-11 | \$ 1,191.24 | Approved | 7 | \$ 1,191.24 | \$ 1,191.24 | | | 1/12/2021 | | | | | | |
| 48 | 1/21/2021 | Add Bearing Cooling Water Gfeed to Influent Pumps | \$ 16,267.28 | Approved | 8 | \$ 16,267.28 | \$ 16,267.28 | | | 3/1/2021 | | | | | | |
| 49 | 1/29/2021 | Unforeseen Below Grade Conditions @ RSPS | \$ 19,244.40 | Approved | 8 | \$ 19,244.40 | \$ 19,244.40 | | | 3/1/2021 | | | | | | |
| 46 | 4/8/2021 | Demo Existing Embed at New Channel #3 | \$ 5,163.56 | Approved | 9 | \$ 5,163.56 | | \$ 5,163.56 | | 5/2/2021 | | | | | | |
| 50 (rev) | 2/3/2021 | (RFI-196) Heat Trace and Insulate 2" CW | \$ 4,734.43 | Approved | 9 | \$ 4,734.43 | | \$ 4,734.43 | | 5/26/2021 | | | | | | |
| 52 | 3/15/2021 | Control Mods to Ex. NRCY Pumps to Meet Code | \$ 2,924.08 | Approved | 9 | \$ 2,924.08 | | \$ 2,924.08 | | | | | | | | |
| 53 | 3/15/2021 | Add EXP Motor to OH Door at RSPS | \$ 2,815.39 | Approved | 9 | \$ 2,815.39 | \$ 2,815.39 | | | | | | | | | |
| 54 | 3/15/2021 | Relocate HVAC Duct to Install Pump VFDs | \$ 1,670.90 | Approved | 9 | \$ 1,670.90 | \$ 1,670.90 | | | | | | | | | |
| 55 | 4/8/2021 | Assist in Opening Gate 5030 | \$ 3,710.78 | Approved | 9 | \$ 3,710.78 | | \$ 3,710.78 | | 5/2/2021 | | | | | | |
| 56 | 4/9/2021 | Separate Power/Control on Existing Mixer and Pumps to Maintain Curent Code Complaiance | \$ 19,078.76 | Approved | 9 | \$ 19,078.76 | | \$ 19,078.76 | | | | | | | | |
| 57 | 4/9/2021 | Add Missing Wiring to New Ammonia Air Blast Kits | \$ 9,299.78 | Approved | 9 | \$ 9,299.78 | | \$ 9,299.78 | | | | | | | | |
| 58 | 4/9/2021 | Delete UPS's @ Blower LCPs | \$ (2,057.30) | Approved | 9 | \$ (2,057.30) | | \$ (2,057.30) | | | | | | | | |
| 60 | 4/20/2021 | Emergency repair Assistance - Failed Gate at Primary DBox | \$ 8,483.32 | Approved | 9 | \$ 8,483.32 | \$ 8,483.32 | | | | | | | | | |
| 61 | 4/30/2021 | Handrail Around Opening at MWG for UV Channel #3 | \$ 2,105.85 | Approved | 9 | \$ 2,105.85 | | \$ 2,105.85 | | 5/19/2021 | | | | | | |

Stamford WPCF Preliminary, Secondary and Disinfection Treatment Improvements
Change Order Summary

| | | | | | | | | | | | | | | | | |
|----------|-----------|---|----------------|----------|----|----------------|---------------|----------------|-----------|------|----------|---|-----------|--|------|-----------|
| 62 | 5/10/2021 | (RFI-157A) Grating Grounding at UV Basins | \$ 5,492.86 | Approved | 9 | \$ 5,492.86 | | \$ 5,492.86 | 5/11/2021 | 157A | | | | | | |
| 64 (rev) | 5/12/2021 | (RFI-126) Accessibility of UV Transmittance Sensor | \$ 9,493.96 | Approved | 9 | \$ 9,493.96 | | \$ 9,493.96 | 5/13/2021 | 126 | | | | | | |
| 65 | 5/12/2021 | Sawcut Overhand in Stairs in RSPS | \$ 900.43 | Approved | 9 | \$ 900.43 | \$ 900.43 | | | | | | | | | |
| 66 | 5/12/2021 | Rework Removable Railings at AT Mixers | \$ - | Approved | 9 | \$ - | \$ - | | | | | | | | | |
| 67 | 5/12/2021 | Add Supports @ Influent Channel for Aluminum Plating | \$ 5,315.63 | Approved | 9 | \$ 5,315.63 | \$ 5,315.63 | | | | | | | | | |
| 68 | 5/12/2021 | Notch Framing around new influent pump shafts @ 5 Locations | \$ 1,009.50 | Approved | 9 | \$ 1,009.50 | \$ 1,009.50 | | | | | | | | | |
| 70 | 5/17/2021 | (WCD-H-03) Encase Electrical and Hydraulic Conduit in Basin #2 (T&M) | \$ 23,166.63 | Approved | 9 | \$ 23,166.63 | | \$ 23,166.63 | | | | | | | H-03 | |
| 71 | 5/21/2021 | Provide 7 MGD Clean Recirculated Flow at UV Basin #2 | \$ 4,372.78 | Approved | 9 | \$ 4,372.78 | | \$ 4,372.78 | 5/26/2021 | | | | | | | |
| 72 (rev) | 5/21/2021 | (RFI-222-H) Basin 2, Channel 3 Existing Wall Inconsistencies | \$ 8,436.33 | Approved | 9 | \$ 8,436.33 | | \$ 8,436.33 | 6/6/2021 | 222 | | | | | | |
| 74 | 5/28/2021 | (RFI-167) Repair to Existing Concrete Beam at UV Effluent PS | \$ 42,048.45 | Approved | 9 | \$ 42,048.45 | | \$ 42,048.45 | 6/6/2021 | 167 | | | | | | |
| 63 (rev) | 7/15/2021 | Investigate/Repair Failed 42" Force Main | \$ 209,722.28 | Approved | 10 | \$ 209,722.28 | \$ 209,722.28 | | | | | | | | | |
| 69 (rev) | 7/15/2021 | Install Temporary 24" HDPE Force Mains & Manifold | \$ 367,747.46 | Approved | 10 | \$ 367,747.46 | \$ 367,747.46 | | | | | | | | | |
| 59 | 4/16/2021 | Add Current Transformers to Blowers to Accept signal and monitoring of Amperage | \$ 24,700.84 | Approved | 11 | \$ 24,700.84 | | \$ 24,700.84 | 6/10/2021 | 237 | | | | | | |
| 75 | 6/9/2021 | Replace Mixer Meltic Connector to Match New Mixers | \$ 7,330.29 | Approved | 11 | \$ 7,330.29 | | \$ 7,330.29 | 6/10/2021 | | | | | | | |
| 77 | 7/12/2021 | Re-align Pumps 4 and 5 per GA Fleets Recommendation | \$ 2,924.56 | Approved | 11 | \$ 2,924.56 | \$ 2,924.56 | | | | | | | | | |
| 78 | 7/15/2021 | Bypass Force Main Rental/Ops Costs 4/21/21 through 6/18/21 | \$ 136,711.13 | Approved | 11 | \$ 136,711.13 | \$ 136,711.13 | | 8/11/2021 | | | | | | | |
| 80 | 7/29/2021 | Paint Existing Bridge Crane runway beams and crane rail at UV Basin #2 | \$ 8,221.33 | Approved | 11 | \$ 8,221.33 | | \$ 8,221.33 | 7/29/2020 | | | 6 | 7/22/2021 | | | |
| 81 | 8/13/2021 | Radar Level Sensor | \$ 2,407.75 | Approved | 12 | \$ 2,407.75 | | \$ 2,407.75 | 8/18/2021 | | | | | | H-04 | 6/10/2021 |
| 83 | 8/13/2021 | Delete Blower Room Floor Painting | \$ (12,915.20) | Approved | 12 | \$ (12,915.20) | | \$ (12,915.20) | 8/25/2021 | | | | | | | |
| 84 | 8/18/2021 | WCD-05-H UV PLC Programming Modifications - Add channel out of Service Status | \$ 7,691.61 | Approved | 12 | \$ 7,691.61 | | \$ 7,691.61 | 8/24/2021 | | | | | | H-05 | 7/14/2021 |
| 85 | 8/24/2021 | (RFI-256) Protection around Fixed Ultrasonic Sensors at UV | \$ 3,053.06 | Approved | 12 | \$ 3,053.06 | | \$ 3,053.06 | 9/3/2021 | 256 | 7/8/2021 | | | | | |
| 89 | 8/27/2021 | Add WiFi to Aeration Tank Instruments | \$ 15,421.01 | Approved | 12 | \$ 15,421.01 | | \$ 15,421.01 | 8/30/2021 | | | | | | | |
| 90 | 8/27/2021 | Replace Existing Plastic JBs on Aeration | \$ 10,997.74 | Approved | 12 | \$ 10,997.74 | | \$ 10,997.74 | | | | | | | | |

Stamford WPCF Preliminary, Secondary and Disinfection Treatment Improvements
Change Order Summary

| | | | | | | | | | | | | | | | | |
|-----|------------|--|---------------|--------------------|-----|-----------------|-----------------|--------------|----------------|--|----------|-----|----|------------|----|------------|
| 92 | | Add Meltric Plugs AT NRCY Pumps | \$ 24,806.41 | Approved | 12 | \$ 24,806.41 | | \$ 24,806.41 | | | | | | | | |
| | | Credit for Remaining Unit Price Item 4C - Surface Spall Repair | | Approved | 12 | \$ (15,107.00) | | | \$ (15,107.00) | | | | | | | |
| | | Credit for Remaining Unit Price Item 5C - Formed Spall Repair | | Approved | 12 | \$ (35,000.00) | | | \$ (35,000.00) | | | | | | | |
| | | Additional Unit Price Item 6C - Type I Crack Repair | | Approved | 12 | \$ 875.00 | | | \$ 875.00 | | | | | | | |
| | | Credit for Remaining Unit Price Item 7C - Type II Crack Repair | | Approved | 12 | \$ (3,750.00) | | | \$ (3,750.00) | | | | | | | |
| | | Credit for Remaining Unit Price Item 8C - Type III Crack Repair | | Approved | 12 | \$ (13,855.00) | | | \$ (13,855.00) | | | | | | | |
| | | Credit for Remaining Unit Price Item 9C - Disposal of Polluted Soils | | Approved | 12 | \$ (14,250.00) | | | \$ (14,250.00) | | | | | | | |
| | | Credit for Remaining Unit Price Item 10C - Disposal of Contaminated Soils | | Approved | 12 | \$ (21,750.00) | | | \$ (21,750.00) | | | | | | | |
| 15 | 3/18/2020 | Reroute roof drain from Screenings Building as required by the Stamford Building Department. Approved materials only. Labor to high so going T&M | \$ 6,912.20 | Partial Approval | TBD | TBD | TBD | | | | 4/7/2020 | | | | | W-01 |
| 23 | 4/24/2020 | Replace Cables for Gates Not Shown on Contract Drawing | \$ 5,893.78 | Revisions Required | | | | | | | | | | | | |
| 76 | 6/15/2021 | Increase Influent Pump VFD and Cabling | \$ 132,196.26 | Approved | 12 | \$ 132,196.26 | \$ 132,196.26 | | | | | | | | | |
| 73 | 11/23/2021 | Replace Primary D-Box Gates and Actuators | \$ 96,748.25 | Approved | 13 | \$ 96,748.25 | \$ 96,748.25 | | | | | | 01 | 11/22/2021 | | |
| 94 | 11/23/2021 | Realign RSP 1,2 &3 | \$ 4,067.19 | Approved | 13 | \$ 4,067.19 | \$ 4,067.19 | | | | | | | | 37 | 9/27/2021 |
| 95 | 11/23/2021 | Add light to CP-96 | \$ 762.80 | Approved | 13 | \$ 762.80 | \$ - | \$ 762.80 | | | | | | | 26 | 12/15/2020 |
| 98 | 11/23/2021 | Configure Hach Controller for WiFi Use | \$ 6,102.42 | Approved | 13 | \$ 6,102.42 | \$ - | \$ 6,102.42 | | | | | | | 31 | 4/20/2021 |
| 99 | 11/23/2021 | Add Aeration Blower VDV Alarm | \$ 2,674.05 | Approved | 13 | \$ 2,674.05 | \$ - | \$ 2,674.05 | | | | | | | 51 | |
| 105 | 11/23/2021 | Add Neoprene Pads on Roof | \$ 2,370.74 | Approved | 13 | \$ 2,370.74 | \$ 2,370.74 | | | | | 258 | | | 36 | 5/22/2021 |
| 106 | 11/23/2021 | Provide Additional Roof Duct Supports | \$ 7,956.42 | Approved | 13 | \$ 7,956.42 | \$ 7,956.42 | | | | | 288 | | | 54 | 10/7/2021 |
| 107 | 11/23/2021 | Change Pipe Colors in RSPS | \$ 1,762.00 | Approved | 13 | \$ 1,762.00 | \$ 1,762.00 | | | | | 289 | | | | |
| 109 | 11/23/2021 | SNEET Servoces Assist City | \$ 4,014.79 | Approved | 13 | \$ 4,014.79 | \$ 4,014.79 | | | | | | | | | |
| 79 | 11/23/2021 | Force Main Repair and Slip Lining Assistance | | Approved | 14 | \$ 1,302,438.55 | \$ 1,302,438.55 | | | | | | | | | |
| | | Additional Work at Spare Parts Building Exterior Door | | Pending | | | | | | | | | | | | |
| 97 | 10/1/2021 | CP-11 Reprogramming for Washpress Operations | \$ 2,542.68 | Approved | 15 | \$ 2,542.68 | \$ 2,542.68 | | | | 1/4/2022 | | | | | |

