

TECHNICAL COMMITTEE MEETING MINUTES Tuesday 12/14/2021 4:30PM

Via VIDEO/TELECONFERENCE

Attendees:

Merritt Nesin, P.E.

Edward Kelly

Steve Bagwin

William Brink, PE

Ann Brown, PE

Robert Pudelka

Chairman, Technical Committee

Committee Member

Committee Member

Executive Director, WPCA

Supervising Engineer, WPCA

Plant Supervisor, WPCA

1. Call to Order and Roll Call.

M. Nesin called the meeting to order at 4:32pm and announced the attendees as listed above.

2. Approval of November 10, 2021 Meeting Minutes.

E. Kelly made a motion to approve the minutes of the November 10, 2021 Technical Committee Meeting; seconded by S. Bagwin. Motion carried 3-0-0.

- 3. Public Comments None.
- Discussion and Vote on Amendment No. 5 to the Agreement with CDM Smith for Task 5 Rehabilitation Design Services – Phase II Rehabilitation Design for an amount of \$55,000.

W. Brink stated that CDM Smith prepared a Sewer System Evaluation Survey (SSES) and Infiltration/ Inflow (I/I) Report for WPCA which recommended field investigation programs that identify sources of extraneous flow into the sanitary sewer system and corrective actions for the removal of extraneous flow. The field investigations have been completed and WPCA has been addressing the areas having the most infiltration in a Phased approach. This amendment is for CDM Smith to prepare the design and bid documents for the next Phase of work. The Committee agreed that this work should be done and will recommend approval of the amendment to the full Board at the December 20th meeting.

 Discussion and Vote on Amendment No. 2 to the Agreement with Gannett Fleming for Additional Design Services for the Sludge Degritting System Improvements Project for an amount of \$25,000.

W. Brink explained that the design and bid documents for the degritting system were complete. The WPCA asked that replacement of the equipment in Primary Clarifier No.1 be added to this contract which requires additional engineering. He explained that the skimmer arm of the clarifier had collapsed and the equipment needs to be replaced due to age and corrosion. WPCA looked at this as a stand-alone project and found that the cost of the equipment was high. If it is included in the bid, it may be more competitively priced. He also explained that if this was a stand-alone project, there would be 2 different contractors working in the same area at the same time which he sees as a conflict. The Committee agreed with the approach for this work and will recommend approval of the amendment to the full Board at the December 20th meeting.

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6. Discussion on Plant Operations.

R. Pudelka stated that the plant saw average numbers this month. He indicated that there was an emergency shut down of one train of the aeration system because a gate fell into the tank damaging some piping and diffusers. The plant staff repaired the diffusers and piping and replaced the gate and stops. He indicated that there were 4 UV exceedances in the last month but, none within the last 30 days. The exceedances were caused by an error in the automatic UV channel rotation which has been corrected. M. Nesin asked when the septage receiving will be opened to the septic haulers. R. Pudelka indicated that it should be ready next week. M. Nesin asked if anything is being done about the pump shaft vibrations at the raw sewage pumps. R. Pudelka indicated that there will be 2 days of vibration analysis on all 5 pumps. The Monthly Operating Report and Equipment Update will be sent following this meeting.

7. Update on Engineering Studies and Designs.

A. Brown provided the committee with an update on engineering studies and designs which is attached and made part of these minutes.

- a. Infiltration & Inflow Removal Project
- b. Sludge Degritting System Upgrade
- c. Sludge Management Plan
- d. Engineering Design Services for Plant Water System and the RAS/WAS Pumping Systems
- e. Storm Water Pump Station Study and FEMA BRIC Grant Application.

8. Update on Construction Projects.

A. Brown provided the board with an update on engineering studies and designs which is attached and made part of these minutes.

- a. Standby Generator for the Greenwich Ave. Pump Station
- b. Preliminary, Secondary and Disinfection Treatment Improvements
- c. Clay Hill Pump Station Generator
- d. Electrical Preventive Maintenance and Arc Flash Evaluation

9. Old Business.

E. Kelly asked if a report identifying the cause of the dryer explosion had been issued. W. Brink responded that he has not seen a report and that information has not been released due to ongoing litigation.

10. 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 was adjourned at 5:19PM.



UPDATE OF CAPITAL PROJECTS TECHNICAL COMMITTEE MEETING December 14, 2021

A. Brown presented the following project updates:

1. UPDATE ON ENGINEERING STUDIES AND DESIGNS

a. Infiltration Inflow Study

CDM Smith will begin the next phase of the Infiltration and Inflow Removal Project which includes the design of the sewer rehabilitation in subareas F1-1 and B1-3. These subareas were ranked 4th and 5th for subareas having the most infiltration. The work needed in these areas includes sewer and manhole cleaning, manhole rehabilitation, sewer spot replacement and CIPP lining. The sewer rehabilitation is expected to be performed in FY 22-23.

b. Sludge Degritting System Upgrade

The bid documents for replacing the primary sludge pumps and sludge degritting equipment, as well as the sludge withdrawal piping from the primary settling tanks, are ready. We asked Gannett Fleming to include replacing the broken skimmer arm and drive unit in the primary clarifier to the bid documents. This project is scheduled for advertising January 13th with bids received February 17th.

c. Sludge Management Plan

A meeting was held with Hazen to discuss the mass and energy balances for each of the alternatives that have been selected so far and review a preliminary energy dashboard for the WPCA. Hazen is now working on the capital costs for all the alternatives and continuing to work on the energy model. They plan on scheduling a workshop during the 2nd or 3rd week in January to present the results.

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

No change to this item. We are reviewing the scope of services submitted by Gannett Fleming. Once the scope is agreed to, Gannet Fleming will submit a fee schedule.

e. Storm Water Pump Station Study for FEMA BRIC Grant

Stantec completed the needs assessment, cost estimate, project schedule and benefit cost analysis required for the FEMA BRIC grant application. The grant was submitted on November 29th. The recommended improvements include replacement of the pump stations' aged electrical switch gear and pump motors. We would also like to include the addition of an emergency standby generator.

2. UPDATE ON CONSTRUCTION PROJECTS

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

This work should begin soon. We are meeting with Northeast Generator next week to review the construction schedule.

b. Preliminary, Secondary and Disinfection Treatment Improvements

Most of the work for this project is complete. The equipment has been installed and is operating. There are still issues with the controls for equipment. Right now, aeration/ blower control issues are continuing. We are working with Wright-Pierce, the design engineers, to address these issues. Cleanup and site restoration is being done. Most disturbed areas of the site have been topsoiled and hydroseeded. Areas in the RSPS building still require cleanup, painting and new flooring.



c. Clay Hill Pump Station Generator

No change to this item. The generator pad has been installed. We have requested a date from purchasing for bidding the sizing, purchase and installation of a generator for this site.

d. Electrical Preventive Maintenance / Arc Flash

Siemens has completed electrical preventive maintenance portion of the project. They are finalizing all the information compiled and will be providing it to Tighe & Bond for the Arc Flash Study to be prepared.

Change Order Log as of 12-14-21

Copy of Change Order log for construction projects is attached. We just received a change order for CH Nickerson's work on the Force Main repairs which is not yet included in the values below.

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

Original Value of Contract = \$ 26,751,500.00 Total Approved CO Amount = \$ 1,590,129.60 Contract Sum to Date = \$ 28,341,629.60

Percent of total project = 5.9%

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

												RF1	RFP	Ť	*	WCD
CHN PCCOR No.	CHN PCCOR Vo. Date	Description	Contractor	State	Included in	Total Approved Amount	Approved to Preliminary	Approved to Secondary	Approved to UV	Approved Date	Z	Date lesued	No.	Date Issued	N _o .	Date Issued
NA		Replace the issue for 00520 - Agreement at Conditions with the At	37	Approved	_	5			:							
01 (rev)) 6/21/2019		\$ 194,822.00	Approved	N	\$ 194,922.00	\$ 48,340.00	\$ 110,000.00	\$ 36,582.00	7/9/2019						
02 (rav)	1/20/2020	Additional Plank Support Framing & Planking at UV Basin 1 Outlas	\$ 35,257.23	Approved	ນ	\$ 35,257.23			\$ 35,257.23	2/27/2020			Ŧ OI	11/19/2019		
03 (rev)	0202/25/01	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	9 UV Pilasters	\$ 2,689.46	Approved	S	\$ 2,689.46			\$ 2,689.46	11/19/2019						
99	1/28/2020	Remove and Reinstal drain piping and electrical conditionaboxes in Blower Room to install new fire rated wall. Plans did not call for this work	\$ 28,473.69	Approved	ω	\$ 28,473.69		\$ 28,473.69		4/7/2020		!			W-06	11/20/2019
=	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	0202rans	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				
=	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 Massing Hardware @ AT Bridges	\$ 5,082.33	Approved	٨	\$ 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	•	\$ 23,618.32		\$ 23,618.32								
16	4/4/2020	Credit for Redundant Breaker @ ATS	\$ (17,296,74)	Approved	ĆT.	\$ (17,296.74)		\$ (17,296.74)		020212218						
ž	8/7/2020	Add External Breaker for RSP-2	\$ 9,061.48	Approved	th	\$ 9,061,48	\$ 9,061.48			02020276						
24	8/26/2020	Additional Tags for The GE Historian	\$ 8,590.02	Approved	Un	\$ 8,590.02	\$ 2,863.34	\$ 2,863.34	\$ 2,863.34	8/26/2020	H-164	Ø/19/2020				
. 25	9/14/2020	Replace UV Channel #3 Inlet Gate	\$ 37,004.86	Approved	U n	\$ 37,004.86			\$ 37,004.86	8/15/2020			H-02	B232020		
27	9/15/2020	Install Missing Wiring to MX 60-6 & 60-12	\$ 16,235.90	Approved	U1	\$ 16,235.90		\$ 16,235.90		0202FZ#6						
28	9/15/2020	New Sampler Location at UV	\$ 5,232.89	Approved	5	\$ 5,232.89			\$ 5,232.89	B/17/2020	H-154	0202/8/#				
29	9/22/2020	Replace Missing WML support rods in Aerabon tank 1- 4E/4W	\$ 4,869.75	Approved	5	\$ 4,869.75		\$ 4,969.75		0202V276				_		
31	9/22/2020	Test Soils for City Storage tent	\$ 1,525.86	Approved	5	\$ 1,525.86		\$ 1,525.86		0202K2A						
25	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

	21	2,105.85 5/19/2021	\$ 2,1			\$ 2,105.85	40	Approved	\$ 2,105.85	Handrail Around Opening at MWG for UV Channel #3	4/30/2021	61
					\$ 8,480.32	\$ 8,483.32	9	Approved	\$ 8,483.32	Emergency repair Assistance - Failed Gale at Primary DBox	4/20/2021	60
			9	\$ (2,057.30)		(2.057.30)	9	Approved	s (2,057,30)	Defeta UPS's @ Blower LCPs	4/9/2021	58
			_ 05 	\$ 9,299.78		\$ 9,299.78	9	Approved	\$ 9,299,78	Add Wasing Wiring to New Ammonia Air Blast Kits	4/9/2021	57
				\$ 19,078.76		\$ 19,078.76	9	Approved	\$ 19,078.76	Separate Power/Control on Existing Mixer and Pumps to Maintain Curent Code Complaince	4/9/2021	56
		3,710.78 5/2/2021	\$ 3,7			\$ 3,710,78	8	Approved	\$ 3,710,78	Assist in Opening Gate 5000	4/8/2021	55
					\$ 1,670.90	\$ 1,670.90	9	Approved	\$ 1,670.90	Relocate HVAC Duct to Install Pump VFDs	3/15/2021	52
					\$ 2,815.39	\$ 2,815.39	9	Approved	\$ 2,815.39	Add EXP Motor to OH Door at RSPS	3/15/2021	23
				\$ 2,924,08		\$ 2,924.08		Approved	\$ 2,924.08	Control Mods to Ex. NRCY Pumps to Meet Code	3/15/2021	52
	21	4,734.43 5/26/2021	\$ 4,1			\$ 4,734.43	9	Approved	\$ 4,734.43	(RFI-196) Heat Trace and Insulate 2" CW	1202/172	50 (rev)
	<u> </u>	5,163.56 5/2/2021	s 5,			\$ 5,163.56		Approved	\$ 5,163.56	Demo Existing Embed at New Channel #3	4/8/2021	46
_		31/20Z1			\$ 19,244.40	\$ 19,244.40		Approved	\$ 19,244,40	Unforseen Below Grade Condictions @ RSPS	1/20/2021	49
_		3/1/2021			\$ 16,267.28	\$ 16,267.28	8	Approved	\$ 16,267.28	Add Bearing Cooling Water Gleed to Influent Pumps	1/21/2021	48
	21	1/12/2021			\$ 1,191.24	\$ 1,191.24	7	Approved	\$ 1,191.24	Increase Conduit Size to CP-11	1/11/2021	45
_	21	1/8/2021		:	\$ 5,410.15	\$ 5,410.15	7	Approved	\$ 5,410.15	Relocate Fire Alarm Conduit Around Door 1010c	1/11/2021	1 2
H-04 10/22/2020		13,554.20 1/8/2021	\$ 13,5			\$ 13,554.20	7	Approved	\$ 13,554.20	Electrical Power in Spare Parts Building	12/22/2020	4.4
RF+159 8/4/2020		16,475.43 12/17/2020	\$ 16,			\$ 16,475.43	7	Approved	\$ 16,475.43	Maintenance Access at UV Electrode Sensors	12/8/2020	42 (rev)
H-05 10/22/2020		36,975.66 12/17/2020	\$ 36,1			\$ 36,975.66	7	Approved	\$ 36,975,66	Canopy Extension and Davit Crane	12/8/2020	41 (rev)
H-03 10/5/2020	- ZO	25,055.44 12/17/2020	\$ 25.0			\$ 25,055.44	7	Approved	\$ 25,055.44	Trench Cover at Spare Parts Building	12/8/2020	37 (rev)
		12,145.53 12/2/2020	12: 12:			\$ 12,145.53	6	Approved	\$ 12,145.53	Paint UV Steel Walkway at Basins 1 & 2 - Option 1	10/28/2020	36
		11/11/2020		\$ 16,024.43		\$ 16,024.43	6	Approved	\$ 16,024.43	Add Supports to Existing Pipe in Blower room	11/2/2020	1 0
			<u> </u>	\$ 5,513,98		\$ 5,513.98	6	Approved	\$ 5,513.98	Replace Failing Straub Coupling (Existing)	10/2/2020	ន
12/2/2020	_			\$ 57,017.98		\$ 57,017.98	6	Approved	\$ 57,017.98	Add Cable Tray and Bus Supports	9/22/2020	30

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

							\$ 10,997,74		10,997.74	- *		Approved	\$ 10,997.74	Replace Existing Plastic JBs on Aeration	B/27/2021	88
					87070Z1		\$ 15,421.01		15,421.01	12 5		Approved	\$ 15,421.01	Add WiFI to Aeration Tank Instruments	8/27/2021	89
			7/8/2021	256	8/3/2021	\$ 3,053.06			3,053.06	\$ 8		Approved	\$ 3,053.06	(RFI-256) Protection around Fixed Ultrasonic Sensors at UV	B/24/2021	8
- 1					8/24/2021	\$ 7,691.61			7,691.61	12		Approved	\$ 7,691,61	WCD-05-H UV PLC Programming Modifications - Add channel out of Service Status	8/18/2021	84
- 1					8/25/2021		\$ (12,915.20)		(12,915.20)	12		Approved	\$ (12,915.20)		BV13V2021	83
표					8/18/2021	\$ 2,407.75			2,407.75	12		Approved	\$ 2,407,75	Radar Level Sensor	1202/C1/B	9
	7/22/2021	6			7/29/2020	\$ 8,221,33			8,221,33	111 5		Approved	\$ 8,221,33	Paint Existing Bridge Crane runway beams and crane rail at UV Basin #2	7/29/2021	80
- 1					B/11/2021			\$ 136,711,13	136,711,13	111 \$		Approved	\$ 136,711.13	Bypass Force Main Rental/Ope Costs 4/21/21 through 6/18/21	7/15/2021	78
								\$ 2,924.56	2,924.56	- \$		Approved	\$ 2,924.56	Re-align Pumps 4 and 5 per GA Fleets Recommendation	7/12/2021	77
- 1					6/10/2021		\$ 7,330.29		7,330.29	11 5		Approved	\$ 7,330.29	Replace Mixer Meltic Connector to Match New Mixers	6/9/2021	75
				237	8/10/2021		\$ 24,700.84		24,700.84		_	Approved	\$ 24,700.84	Add Current Transformers to Blowers to Accept signal and monitoring of Amperage	4/16/2021	92
								\$ 367,747.46	367,747.46	10 \$		Approved	\$ 367,747.46	Install Temporary 24" HDPE Force Mains & Manifold	7/15/2021	69 (rev)
- 1								\$ 209,722.28	209,722.28	10 \$		Approved	\$ 209,722.28	Investigate/Repair Failed 42* Force Main	7/15/2021	63 (rev)
				167	6/6/2021	\$ 42,048.45			42,048.45	8		Approved	\$ 42,048.45	(RF-167) Repair to Existing Concrete Beam at UV Effluent PS	5/28/2021	74
				222	6/6/2021	\$ 8,436.33			8,436.33	· · ·	_	Approved	\$ 8,436.33	(RFI-222+1) Basin 2, Channel 3 Existing Wall Inconsistencies	5/21/2021	72 (rev)
- 1					5/26/2021	\$ 4,372.78			4,372.78	-5		Approved	\$ 4,372.78	Provide 7 MGD Clean Recirculated Flow at UV Basin #2	5/21/2021	71
표						\$ 23,166.63			23,166.63	9 \$		Approved	\$ 23,166.63	(WCD-H-03) Encase Electrical and Hydraulic Conduit in Basin #2 (T&M)	5/17/2021	70
- 1								\$ 1,009.50	1,009.50	9 5		Approved	\$ 1,009.50	Malch Framing around new influent pump shafts @ 5 Locations	5/12/2021	25
								\$ 5,315.63	5,315.63	9		Approved	\$ 5,315.63	Add Supports @ Influent Channel for Aluminum Plating	5/12/2021	67
							žán.		1147	\$ 		Approved		Rework Removable Railings at AT Mixers	5/12/2021	66
- 1								\$ 900.43	900.43	8		Approved	\$ 900.43	Sawoul Overhand in Stairs in RSPS	5/12/2021	65
				126	5/13/2021	\$ 9,493.96			9,483.96	9		Approved	\$ 9,493.96	(RFI-125) Accessibility of UV Transmittance Sensor	5/12/2021	64 (rev)
				157A	5/11/2021	\$ 5,492.86			5,492.86			Approved	\$ 5,492.86	(RFI-157A) Grating Grounding at UV Basins	5/10/2021	62

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

		76	12	15							
		6/15/2021	4/24/2020	0202/B1/C							
	Additional Work at Spare Parts Building Exterior Door	5/15/2021 Increase Influent Pump VFD and Cabling	Replace Cables for Gales Not Shown on Contract Drawing	Reroute roof drain from Screenings Building as required by the Stamford Building Department. Approved materials only. Labor to high so going T&M	Crodit for Remaining Unit Price Item 10C - Disposal of Contaminated Soils	Crock for Remaining Unit Price frem 9C - Disposal of Polluted Soils	Crods for Remaining Unit Price Item 8C - Type III Crack Repair	Credit for Remaining Unit Price Item 7C - Type II Crack Repair	Additional Unit Price Item 6G - Type I Grack Repair	Credit for Remaining Unit Price Item 5C - Formed Spatt	Credit for Remaining Unit Price Item 4C - Surface Spatt Repair
100		\$ 132,196.26	\$ 5,893,78	\$ 6,912.20							
22	Pending	Pending Discussion with 132,196,26 WPCA to Delemine Amount Wright Pierce to Pay	Revisions Required	Partial Approval	Approved	Approved	Аррииес	Approved	Approved	Approved	Approved
Total		180		081	12	12	12	12	12	12	12
Total \$ 1,590,129.60 \$ 840,893.33 \$ 448,873.02		TB0		TBO	\$ (21,750.00)	\$ (14.250.00)	\$ (13,855.00)	\$ (3,750.00)	\$ 875.00	\$ (35,000.00)	\$ (15,107.00)
\$ 840,893.33		78p		TB:D	:						
\$ 448,873.02											
\$ 300,363.25					\$ (21,750.00)	\$ (14,250.00)	\$ (13,855.00)	\$ (3,750.00)	\$ 875.00	\$ (35,000.00)	\$ (15,107.00)
				4/7/2020							
									_		
-	_										
		:		W-01							