

These minutes are subject to approval by the Public Building and Site Commission

The Public Building and Site Commission held a regular meeting Tuesday, January 28, 2020 in Room 203, Reed Intermediate School, and 3 Trades Lane, Newtown. Chairman Mitchell called the meeting to order at 7:00pm.

Present: Robert Mitchell, Anthony D'Angelo, Gus Brennan, Phil Clark, Art Norton, Gordon Johnson, Allen Adriani

Absent: Tom Catalina, Bob Edwards

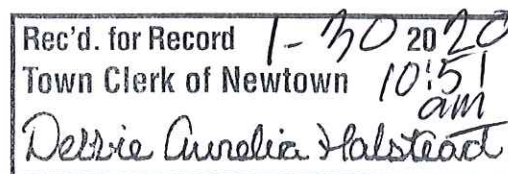
Also Present: First Selectman Dan Rosenthal, Aaron Krueger of Consigli, Corey Shearer of Consigli, Scott Mangiagli of Kaestle Boos, Chief Viadero, Director of School Facilities Bob Gerber, Rusty Malik of Queensberry Arcaro, Joe Giacobbe of Caldwell & Walsh, Rick Spreyer, Purchasing Agent, Matt Ariniello, Director of the Community Center and Kinga Walsh, Chair of the Community Center Committee and one member of the press.

Public Participation: none.

Approval of Minutes: A. Adriani moved to approve the meeting minutes of January 2, 2020.
G. Brennan seconded. All in favor.

Discussion of PBSC Committee membership change: Tom Catalina offered to move to an alternate position on the board as he will be unable to make at least four meetings during the winter. Through an action of the Board of Selectmen Mr. Catalina was moved to an alternate position on the PBSC and Gordon Johnson was moved from an alternate position to a full board member.

Introduction and discussion with the Director of School Facilities Bob Gerbert: Bob Mitchell introduced Bob Gerbert, Director of School Facilities. B. Mitchell reported that in the past Board of Education (BOE) maintenance projects didn't go through PBSC unless state reimbursements were involved. He is looking for much better interface with Bob Gerbert on all projects, even maintenance. B. Gerbert stated he was hired in September, having worked for the City of Stamford, Engineering Dept. for 13 years prior to working for Perdue Pharma for 5 years. He feels this is the right time and right place. He is experienced with capital projects for schools and looks forward to utilizing his experience and working with the PBSC. Dr. Rodrigue wants Mr. Gerbert to help rebuild the relationship between the Town and the schools. B. Gerbert stated the Hawley boiler job is the number one priority, the Middle School is number two. A. Adriani stated that the Sustainable Energy Commission made a motion at their meeting that air quality studies be incorporated into design considerations on facilities when appropriate.



Newtown Police Station:

Project Status and Next Steps: Potential Change Orders and credits net approximately \$5,000, but not all have been costed. The three inch portions of sanitary lines need to be replaced with six inch line. B. Mitchell requested a list of change orders a week before the PBSC meeting. First Selectman Rosenthal noted the Town Engineer is involved in the Pecks Lane driveway. The Town has the fill and the staff to lay the driveway. If, at the end of the project, there is money available, it can be paved as part of the construction project.

Project Budget Review: C. Shearer stated the GMP is \$10,411,049 is inclusive of preconstruction.

Project Schedule Review: Blasting has been finished; the foundation is complete for the sally port. Concrete was poured at the south elevation entryway. The slabs are not done, to provide protection during equipment movement. All demo is complete, inside and out. C. Shearer talked about roofing, partitions separating the sally port, under slab work, electrical, fire protection, and sprinklers. Site development is becoming clearer. Access will be given to PBSC to view the job and photos through ProCore. Major structural steel is coming March 3.

S. Mangiagli said they are working with Chief Viadero on security and talking with R. Spreyer about procurement of lockers and high density storage. Furniture is being discussed; sticking to budgets. There is no disconnect, it is a coordinated effort. Mr. Mangiagli has spoken to George Benson relative to exterior colors. Interior colors will be discussed with Chief Viadero.

Invoices for Payment: A. Norton moved to approve the Kaestle Boos invoice #18010.00-12 in the amount of \$25,714.28. G. Brennan seconded. This brings the construction Administration to 14.29% thru December. All in favor.

A. Norton moved to approve the Consigli invoice #2 in the amount of \$501,004.23. G. Brennan seconded. This brings the project to 6.09% complete thru December. All in favor.

Community Center/Senior Center:

Project Status and Close Out: R. Malik said there have been meetings with Allen Adriani and Gordon Johnson to go over outstanding items. A sketch has been provided showing how to pipe the hot water recirculation in the locker rooms. Utilizing a ¾ inch line will be easier and less expensive. The pump has to be sized for 5 GPM. Matt Ariniello plans to begin the thresh holds in the men's locker room, as it has the least staining.

Project Punch List and Outstanding Issues Review: The sensors are not corrected. Windows were insulated last week, however, the condensation continues. There was a question that this may be an HVAC/air flow issue. Joe Giacobbe will address the sheetrock in the electrical and mechanical room as well as the tiling around the pool deck. J. Giacobbe read the attached email relative to the balancing report. R. Malik forwarded this to the engineer, who expressed

air balancing was originally a concern. A. Adriani said the pool room wasn't balanced because they couldn't get to the registers, which could be part of the problem with the condensation on the windows. He can't tell if the registers have balancing dampers and suggested that be looked at as well. R. Malik stated that nothing was said during design meetings about the BMS system; it wasn't until value engineering that it was mentioned. The installation is correct, the uneven heating and cooling is a balancing issue. Matt Ariniello has a transition strip sample for the Senior Center. The Multipurpose room flooring will be replaced soon, due to a manufacturer defect. The floor will be replaced at no cost, other than to pay the subcontractor.

The Altro sales representative said bleach was acceptable for cleaning the floor; water was tested for agents. The technical representative for Altro, however, didn't accept responsibility, for the color changes saying if it cannot be proven then it is not their problem. The regional manager stated that bleach is not an acceptable cleaning product and caused the discoloration and recommended their product be used. This contradicts the information provided to the Community Center staff for maintenance.

First Selectman Rosenthal suggested pursuing a modification to the fire line, supported by the Fire Marshal. Duct work will be done Wednesday/Thursday; gas line on roof has not been done, J. Giacobbe will follow up. AON unit caulking will be done this week to prevent rain water infiltration to the unit. There was discussion relative to the fire pump strainer.

Kinga Walsh asked about the timing of piping the locker room and asked that it be done at a time to minimize the impact. G. Johnson said it would be after hours or early morning. She also requested a list of any value engineered items the PBSC feels need to be added back in.

B. Mitchell thanked A. Adriani and G. Johnson for following through and acting as engineers to find out what's going on.

Project Budget Review: n/a.

Change Order Review: none.

Invoices for Payment: none.

The next regular meeting is scheduled for February 25, 2020: B. Mitchell may not be available; another date may be looked at. February 24 was suggested. A special meeting may be called prior, if necessary.

Adjournment: Having no further business the Public Building & Site Commission adjourned their regular meeting at 8:15p.m.

Attachments: Consigli December 2019 report; AC 2000 Inc. email and attachment

Respectfully submitted,
Susan Marcinek

Consigli Owner Monthly Dashboard

December 2019

Newtown Police Station
191 South Main St Newtown, 06470



CONSIGLI
Est. 1995

Executive Overview

- Current GMP of \$10,411,049
- Contracts have been issued to all subcontractors. procurement is complete.
- MEP Coordination: All trades have been drawn and are currently engaged in clash detection and coordination of routing.
- Abatement is complete
- Demo of exterior walls, windows and metal panels have begun.
- Slab Demo for MEP rough and structural improvements to start mid January
- Site blasting and clearing of rock debris complete the end of the month .
- All subcontractors are fully engaged in the submittal submission process
- No current lead time issues on critical material procurement
- Certificate of Occupancy: November 18, 2020

Billing Status



Progress Pictures



Roadblocks

Item	Resolution	B/C
Remove Existing Utility Pole	1/14/2020	Frontier
Brick Selection	1/27/2020	Midstate
Confirm Existing Metal Stud Gauge	1/20/2020	STI

Owner Coordination Items

• Security and AV Equipment Vendors • Pecks Lane Entrance • Testing of exported soil
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Construction Contingency

Current Balance	\$270,754
Approved Transfers	\$0
Pending Transfers	\$0
Projected Balance	\$270,754

Schedule

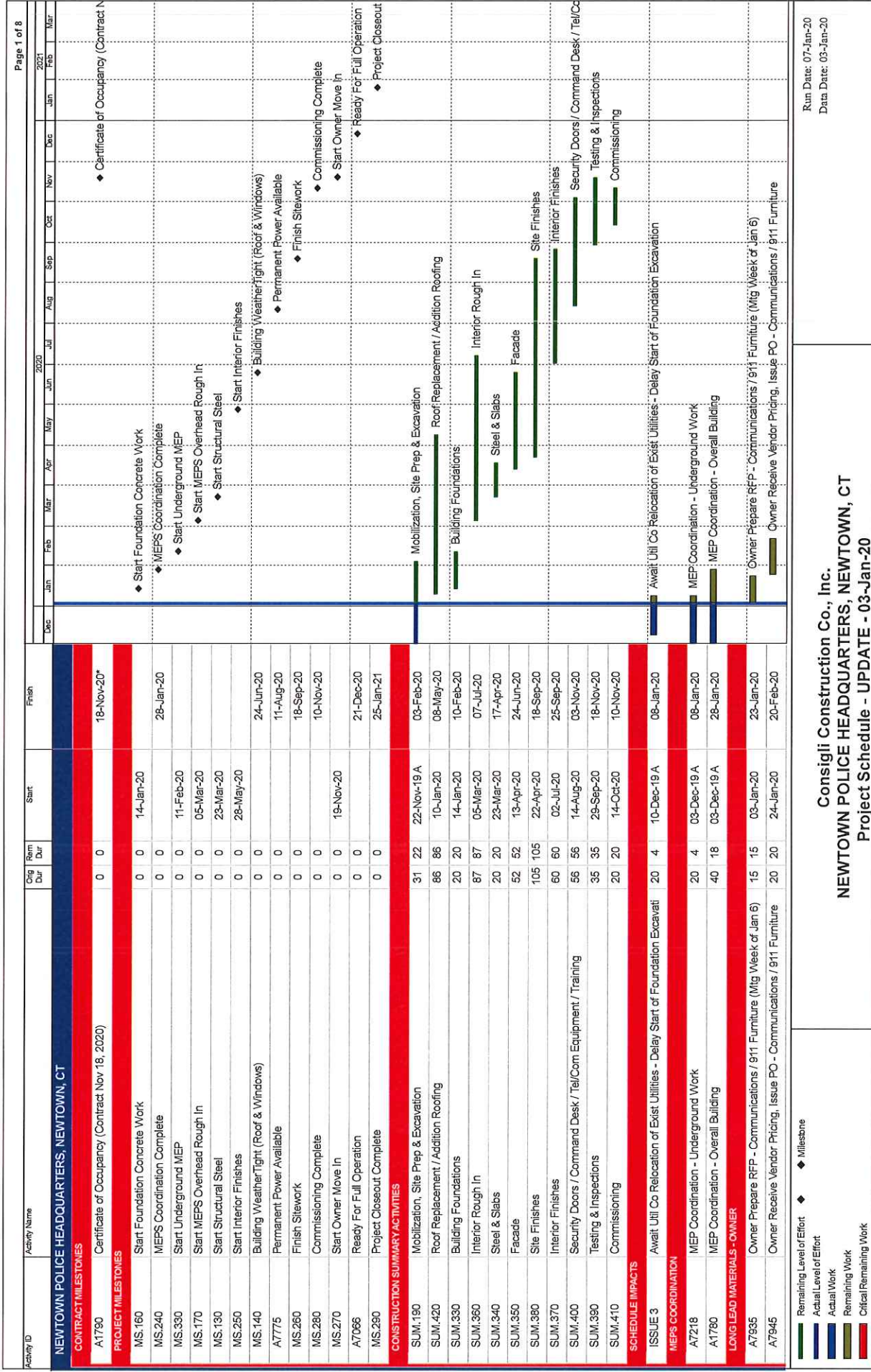
Project Milestones	Target	Actual
Mobilize	11/18/2019	11/18/2019
Start Foundation Concrete Work	1/7/2020	
MEP Coordination Complete	1/28/2020	
Start MEP Underground Rough	2/11/2020	
Start Structural Steel	2/19/2020	

Change Orders

Verbal Approved	\$0
Submitted	\$0
Pending	\$0
Total Potential Changes	\$0
Projected Contract Amount	\$10,411,049
With Potential Changes	\$10,411,049

Contract Status

Original Contract Amount	\$10,411,049
Approved Change Orders	\$0
Current Contract Amount	\$10,411,049
Safety	
Current Project Safety Score	99.70%
Total Man Hours to Date	2971.00
Incidents to Date/ Month	0



Activity ID	Activity Name	Orig Dur	Rev Dur	Start	Finish
A7955	Submit Shop Drawings - Communications / 911 Furniture	30	30	21-Feb-20	02-Apr-20
A7956	PD Review & Approve Shop Drawings - Communications / 911 Furniture	20	20	03-Apr-20	30-Apr-20
A7206	Fab & Deliver - Communications / 911 Furniture (Confirm 3 Month With Owner)	66	66	01-May-20	04-Aug-20
SUBMITTALS					
SITework					
SITE PIPING & MANHOLES/CATCHBASINS					
A3985	Storm Pipe & Drainage Structures - Review & Approve	10	10	08-Jan-20	21-Jan-20
A3985	Storm Pipe & Drainage Structures - Fab & Deliver	15	15	22-Jan-20	11-Feb-20
LIGHT POLE BASES					
A3932	Light Pole Bases - Approve	10	10	03-Jan-20 A	18-Jan-20
A3934	Light Pole Bases - Fab & Deliver	30	30	24-Jan-20	05-Mar-20
STEEL & MISC METALS					
RAILINGS					
A6445	Railings - Prepare & Submit	9	2	18-Dec-19 A	06-Jan-20
A6455	Railings - Review & Approve	10	10	07-Jan-20	20-Jan-20
A6465	Railings - Fab & Deliver	20	20	17-Jul-20	13-Aug-20
ADDITION STRUCTURAL STEEL					
A8065	Rev 1 - Structural Steel - Revise & Re-Submit	6	6	03-Jan-20	10-Jan-20
A8075	Rev 1 - Structural Steel - Review & Approve	10	10	13-Jan-20	24-Jan-20
A4205	Structural Steel - Fab & Deliver	40	40	27-Jan-20	20-Mar-20
CURTAINWALL & METAL PANELS					
CURTAINWALL & WINDOWS					
A4285	Curtainwall & Windows - Shop Drawings - Review & Approve	10	10	30-Dec-19 A	16-Jan-20
A4295	Curtainwall & Windows - Fab & Deliver (12 Weeks)	60	60	17-Jan-20	09-Apr-20
SECURITY GLAZING					
A4915	Security Glazing - Prepare & Submit	20	1	03-Dec-19 A	03-Jan-20
A4925	Security Glazing - Review & Approve	20	20	06-Jan-20	31-Jan-20
A4935	Security Glazing - Fab & Deliver	50	50	03-Feb-20	10-Apr-20
METAL PANELS					
A4305	Metal Panels - Submit (Drawings & Samples)	20	2	03-Dec-19 A	06-Jan-20
A4315	Metal Panels - Approve	20	20	07-Jan-20	03-Feb-20
A4325	Metal Panels - Fab & Deliver	50	50	04-Feb-20	13-Apr-20
ROOFING					
A4255	Roofing - Fab & Deliver (Approved Dec 18, 2019)	15	15	03-Jan-20	23-Jan-20
MASONRY					
A4105	Masonry - Approve	10	2	17-Dec-19 A	06-Jan-20
A4115	Masonry - Fab & Deliver (Need delivery by planned Jan 23 masonry start)	10	10	07-Jan-20	20-Jan-20
WATERPROOFING					
A4085	Waterproofing - Fab & Deliver	5	4	02-Jan-20 A	08-Jan-20*
DRYWALL					

Submit Shop Drawings - Communications / 911 Furniture

PD Review & Approve Shop Drawings - Communications / 911 Furniture

Fab & Deliver - Communications / 911 Furniture (Confirm 3 Month With Owner)

Storm Pipe & Drainage Structures - Review & Approve

Storm Pipe & Drainage Structures - Fab & Deliver

Light Pole Bases - Approve

Light Pole Bases - Fab & Deliver

Railings - Prepare & Submit

Railings - Review & Approve

Railings - Fab & Deliver

Rev 1 - Structural Steel - Revise & Re-Submit

Rev 1 - Structural Steel - Review & Approve

Structural Steel - Fab & Deliver

Curtainwall & Windows - Shop Drawings - Review & Approve

Curtainwall & Windows - Fab & Deliver (12 Weeks)

Security Glazing - Prepare & Submit

Security Glazing - Review & Approve

Security Glazing - Fab & Deliver

Metal Panels - Submit (Drawings & Samples)

Metal Panels - Approve

Metal Panels - Fab & Deliver

Roofing - Fab & Deliver (Approved Dec 18, 2019)

Masonry - Approve

Masonry - Fab & Deliver (Need delivery by planned Jan 23 masonry start)

Waterproofing - Fab & Deliver

Activity ID		Activity Name		Orig	Rem	Start	Finish	2020												2021					
				Dur	Dur			Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
ELECTRICAL																									
BASIC MATERIALS																									
A6015	Basic Electrical Materials - Review & Approve			10	6	24-Dec-19 A	10-Jan-20																		
A6025	Basic Electrical Materials - Fab & Deliver			5	5	13-Jan-20	17-Jan-20																		
ELECTRICAL PANELS & TRANSFORMERS																									
A6045	Electrical Panels - Review & Approve			15	15	03-Jan-20 A	23-Jan-20																		
A6055	Electrical Panels - Fab & Deliver			40	40	24-Jan-20	19-Mar-20																		
LIGHT FIXTURES																									
A6075	Light Fixtures - Review & Approve			10	10	03-Jan-20 A	16-Jan-20																		
A6085	Light Fixtures - Fab & Deliver			40	40	17-Jan-20	12-Mar-20																		
EMERGENCY GENERATOR																									
A6365	Emergency Generator - Review & Approve			15	15	24-Dec-19 A	23-Jan-20																		
A6375	Emergency Generator - Fab & Deliver			70	70	24-Jan-20	30-Apr-20																		
FIRE ALARM SYSTEM																									
A6395	Fire Alarm System - Review & Approve			15	15	23-Dec-19 A	23-Jan-20																		
A6405	Fire Alarm System - Fab & Deliver			50	50	24-Jan-20	02-Apr-20																		
SPECIALTIES																									
METAL LOCKERS																									
A6425	Metal Lockers - Review & Approve			15	15	19-Dec-19 A	23-Jan-20																		
A6435	Metal Lockers - Fab & Deliver			50	50	24-Jan-20	02-Apr-20																		
TOILET PARTITIONS & ACCESSORIES																									
A6105	Toilet Partitions & Accessories - Review & Approve - PD			20	20	17-Dec-19 A	30-Jan-20																		
A8085	Toilet Partitions & Accessories - Prepare & Submit - Drawings			20	20	03-Jan-20	30-Jan-20																		
A8095	Toilet Partitions & Accessories - Review & Approve - Drawings			20	20	31-Jan-20	27-Feb-20																		
A6115	Toilet Partitions & Accessories - Fab & Deliver			40	40	28-Feb-20	23-Apr-20																		
SIGNAGE																									
A6125	Signage - Prepare & Submit			20	20	03-Jan-20	30-Jan-20																		
A6135	Signage - Review & Approve			20	20	31-Jan-20	27-Feb-20																		
A6145	Signage - Fab & Deliver			40	40	28-Feb-20	23-Apr-20																		
PARKING CONTROLS																									
A6255	Parking Controls - Prepare & Submit			20	20	03-Jan-20	30-Jan-20																		
A6285	Parking Controls - Review & Approve			20	20	31-Jan-20	27-Feb-20																		
A6295	Parking Controls - Fab & Deliver			60	60	28-May-20	20-Aug-20																		
CONSTRUCTION																									
New Additions Construction																									
Exterior																									
A7156	Addition - Foundation Excavation & Rock Excavation (Delayed by Util Co Rel			20	20	07-Jan-20	03-Feb-20																		
A1151	Addition - F/R/P Building Foundations (Sallyport/Cell > New Entry)			20	20	14-Jan-20	10-Feb-20																		
A1156	Addition - Excavate / Install Underground Pipe / Inspect, F/R/P Building Addit			15	15	11-Feb-20	02-Mar-20																		
A1153	Addition - Exterior Masonry Bearing Walls			20	20	11-Feb-20	09-Mar-20																		
A1152	Addition - Sallyport & Cell Area - Erect Building Structure & Roof Deck			15	15	23-Mar-20	10-Apr-20																		

Activity ID	Activity Name	Orig Dur	Rev Dur	Start	Finish
A7485	Mech - Duct & Pipe - Overhead Rough In	20	20	05-Mar-20	01-Apr-20
A7505	Electrical / Security / Tel/Data - Overhead Rough In	20	20	05-Mar-20	01-Apr-20
A7485	Plumbing / Roof Drains - Overhead Piping	20	20	12-Mar-20	08-Apr-20
A7535	Sprinkler Rough In / Modify Existing	15	15	19-Mar-20	08-Apr-20
A7515	Frame Walls, In Wall Blocking, Door Frames (After Exterior Wall work)	15	15	02-Apr-20	22-Apr-20
A7525	In Wall MEP & Inspections, Insulation	25	25	09-Apr-20	13-May-20
A7545	Gyp & Tape Walls	25	25	28-May-20	01-Jul-20
A7545	Field Measure Radiant Panels, Order, Fab & Deliver	40	40	11-Jun-20	06-Aug-20
A7555	Frame Soffits & Gyp Ceilings, Rough In, Inspect, Gyp & Tape	25	25	02-Jul-20	06-Aug-20
Finishes					
A7725	Build Out New Mechanical Room	40	40	09-Jun-20	04-Aug-20
A7745	Build Out New Electrical Room	45	45	09-Jun-20	11-Aug-20
A7915	Install Transaction Counter & Security Glazing	10	10	18-Jun-20	01-Jul-20
A7925	Reno - Install Interior Ceiling Doors	5	5	02-Jul-20	09-Jul-20
A7565	Prime & First Coat Walls	10	10	02-Jul-20	16-Jul-20
A7575	Acoustic Ceiling Grid	10	10	10-Jul-20	23-Jul-20
A7755	Build Out New IT Room	10	10	17-Jul-20	30-Jul-20
A8025	Install Bathroom Ceramic Tile	10	10	17-Jul-20	30-Jul-20
A7595	MEPS Trim at Acoustic Grid	15	15	17-Jul-20	06-Aug-20
A8035	Install Bathroom Plumbing Fixtures, Countertops, Grab Bars & Accessories	10	10	31-Jul-20	13-Aug-20
A7625	Install Flooring (Resilient & Carpet)	15	15	31-Jul-20	20-Aug-20
A7685	Above Ceiling Inspections	5	5	07-Aug-20	13-Aug-20
A7635	Ceiling Tiles	10	10	14-Aug-20	27-Aug-20
A7615	Install Millwork (Excluding Communication Room)	15	15	14-Aug-20	03-Sep-20
A7605	Doors & Hardware	10	10	21-Aug-20	03-Sep-20
A7705	Specialties	10	10	21-Aug-20	03-Sep-20
A7715	Install Appliances	5	5	04-Sep-20	11-Sep-20
A7695	Final Paint	10	10	04-Sep-20	18-Sep-20
A7595	MEPS Wall Finishes	15	15	04-Sep-20	25-Sep-20
A7735	Clean Up & Punchlist	10	10	28-Sep-20	09-Oct-20
Sitework					
A1150	Site Preparations & Site Utilities (Fall 2019)	30	10	06-Dec-19 A	16-Jan-20
A7228	Rock Excavation for New Access Road (Fall 2019)	20	12	20-Dec-19 A	20-Jan-20
A7056	Finish Site Prep, Paving & Landscaping (Spring / Summer 2020)	105	105	22-Apr-20*	18-Sep-20
A7785	Install Emergency Generator	20	20	01-May-20	29-May-20
A7975	Install Railings	5	5	14-Aug-20	20-Aug-20
A8055	Install Parking Equipment	5	5	21-Aug-20	28-Aug-20
Punchlist & Commissioning					
A7202	Owner Special System Wiring, Server Tel Data Room & 911 Backbone	40	40	03-Aug-20	28-Sep-20
A6380	General Cleaning & Punchlist	15	15	22-Sep-20	13-Oct-20
A7795	Start Up & Test Emergency Generator	5	5	29-Sep-20	05-Oct-20

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A7204	Communication Room Equipment & Cell Area Security (Cameras / Hardware	25	25	29-Sep-20	03-Nov-20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

 Start Up Mechanical Equipment
 Mechanical Systems - Testing & Balancing
 Final Cleaning
 Final Life / Safety Inspections
 Certificate of Occupancy

 Owner FF&E Move In, Staff
 Ready For Full Operation

 Project Close Out

Subject: Newtown CC T&B comments



Bruce Ratcliffe Sr. <BruceSr@ac2000.us>
to Joseph L. Giacobbe

Tue, Jan 28, 2:49 PM (22 hours ago)

You are viewing an attached message. Town of Newtown Mail
can't verify the authenticity of attached messages.

Joe,

Attached please find the T&B contractors description of the outdoor air balancing at the Community Center. During the VE work we eliminated the Building Management control system. Without this central control system the balancer is unable to globally set the individual control dampers all to the same fully open setting.

During the balance work for multiple air handling units connected to a central outside air system, in order to set the air flow CFM individually all the control dampers must be set to the same full open (non modulating) position.

When this can not be accomplished, because there is no central control system, the outdoor air system is balanced to the total required system air flow CFM. The ODA dampers at the individual air handling units then open and close to admit the required outdoor air into the individual spaces as dictated by the demand ventilation control sensor mounted in the space.

Regards,

Bruce Ratcliffe Sr

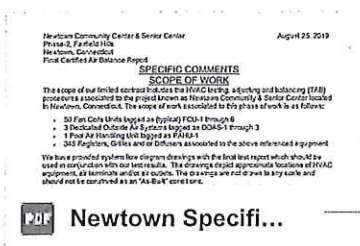
AC 2000 Inc.

238 Reservoir Rd.

Southbury Ct. 06488

Office: 203 270-9347 x 301

email: brucesr@ac2000.us



SPECIFIC COMMENTS

SCOPE OF WORK

The scope of our limited contract includes the HVAC testing, adjusting and balancing (TAB) procedures associated to the project known as Newtown Community & Senior Center located in Newtown, Connecticut. The scope of work associated to this phase of work is as follows:

- 50 Fan Coils Units tagged as (typical) FCU-1 through 6
- 3 Dedicated Outside Air Systems tagged as DOAS-1 through 3
- 1 Pool Air Handling Unit tagged as PAHU-1
- 345 Registers, Grilles and or Diffusers associated to the above referenced equipment

We have provided system flow diagram drawings with the final test report which should be used in conjunction with our test results. The drawings depict approximate locations of HVAC equipment, air terminals and/or air outlets. The drawings are not drawn to any scale and should not be construed as an "As-Built" conditions.

FIELD NOTES AND OBSERVATIONS

There are a total of 50 fan coil units that serve various areas throughout the first floor at the Newtown Community and Senior Center. These fan coil units are equipped with direct drive multi speed fan motors. There are 6 "typical" tagging of fan coil units utilized on the project. All the units are Mitsubishi model numbers PEFY-P06, 08, 12, 15, 18, 24, 30, 36, 48 or 54. There are minimal access to the fan section to record design and actual field nameplate data for these fan coil units. However, our Technicians did confirm that the fan coil units are all installed as designed. There are no issues noted with the mechanical operation of each fan coil units.

Generally speaking all the fan coil units have been confirmed to be delivering design supply CFM. The only exception are the units tagged as FCU-1-1A, 1B, 1C, FCU-1-2A and 2B and FCU-1-3. These systems are set on high fan speed and are being reported as operating below the design supply air shown on the air equipment schedule. Referring to the manufacturer equipment specifications, the design airflow of these fan coils exceeds the nominal total airflow rating of the units. Additionally, there are some non-ducted fan coil units serving various areas. There are no available direct airflow readings for these non-ducted fan coil units, however our Technicians did a visual inspection of those units and no issues were noted.

Also associated to the fan coil units are two dedicated outside air systems tagged as DOAS-1 and 2. There is an additional dedicated outside air system tagged as DOAS-3 that serves the filter room associated to the pool area. The supply side of the units tagged as DOAS-1 and 2 serve as the means to introduce outside air to each of the fan coil units and the exhaust side exhausts airflow from a combination of direct duct connections to the return air of the fan coil units or via ceiling registers located in the space served. Each of the outside air connections (supply air from the dedicated outside air systems) to the fan coil units are equipped with motorized dampers at the outside air intake connection. This damper cycles to either an open or closed position to introduce outside air depending on the mode of operation. The damper operation is wired to open if an increase in CO2 is recognized in the space served. Due to the damper control configuration and sequence of operation associated for these outside

dampers, the actual outside airflow quantities could not be confirmed for the fan coil units. Additionally, any of the exhaust outlets that are directly connected to the return ducts for the fan coil units could not be read as well without the outside fresh air quantities being set. However, the exhaust outlets that are equipped with a ceiling register have been balanced accordingly. The unit tagged as DOAS-3 was confirmed to be operating within acceptable design parameters.

The rooftop unit tagged as PAHU-1 serves the pool area. The outlets associated to this system are not accessible because they are located over the pool water. As directed, our Technicians confirmed total supply air for the unit by referencing manufacturer fan performance curves to actual collected field performance fan data. No issues were noted, and this unit is being reported as delivering design supply air. Additionally, our Technicians confirmed there were no excessive noise issues or drafts associated around the pool area.

All the air filters for the air equipment were noted to be clean and installed properly. The units are controlled via wall mounted thermostats that were verified to be installed in appropriate locations and operating properly. No field revisions were noted for this project.

It should be noted that the TAB work associated to the kitchen equipment, MAU-1 and 2 and Exhaust Fans EF-1 and 2 is being completed by the manufacturer installing the equipment.

