Ventilation Index
First Floor

Room No.	Room Name	Area (sq.ft.)	Occupancy Type		Code				Zone Distribution Effectivness	Design SA		EA	Design OA		Code OA	
			Category	Type	Pers./1000 sq.ft.	No. of Occ.	OA CFM / Pers.	OA CFM / sq.ft.		CFM	CFM / sq.ft.	CFM	% w/o Div.	CFM	CFM	CFM / sq.ft.
101	Lobby	317	Public Spaces	Corridors	0	0	0	0.06	0.8	350	1.1		40%	140	24	0.08
111	Electrical Room	98	storage	warehouses	0	0	0	0.06	0.8	50	0.5		40%	20	7	0.08
112	Decon Room	102	offices	office space	5	1	5	0.06	0.8	50	0.5		40%	20	14	0.14
113	Gear Room	618	storage	warehouses	0	0	0	0.06	0.8	400	0.6		40%	160	46	0.08
119	Apparatus Bay	5,300	storage	Enclosed parking garage	0	0	0	0.75	1.0	4000	0.8	4,000.0	100%	4,000	3,975	0.75
120	Air Room	198	storage	warehouses	0	0	0	0.06	0.8	300	1.5		40%	120	15	0.08
122	Floor Cleaning	64	storage	warehouses	0	0	0	0.06	0.8	75	1.2		40%	30	5	0.08
123	Clean-Up	72	storage	warehouses	0	0	0	0.06	0.8	75	1.0		40%	30	5	0.08
126	Ems Storage	87	storage	warehouses	0	0	0	0.06	0.8	75	0.9		40%	30	7	0.08
127	Officer's Closet	87	storage	warehouses	0	0	0	0.06	0.8	75	0.9		40%	30	7	0.08
128	Firematic Storage	173	storage	warehouses	0	0	0	0.06	0.8	100	0.6		40%	40	13	0.08

Ventilation Index
Second Floor

Room No.	Room Name	Area (sq.ft.)	Occupancy Type		Code				Zone Distribution Effectivness	Design SA		EA	Design OA		Code OA	
			Category	Type	Pers./1000 sq.ft.	No. of Occ.	OA CFM / Pers.	OA CFM / sq.ft.		CFM	CFM / sq.ft.	CFM	% w/o Div.	CFM	CFM	CFM / sq.ft.
201	Upper Lobby	867	Public Spaces	Corridors	0	0	0	0.06	0.8	850	1.0		38%	323	65	0.08
203	Copy/Supply	278	Workrooms	Copy rooms	4	2	5	0.06	0.8	150	0.5		38%	57	33	0.12
206	District Records	99	storage	warehouses	0	0	0	0.06	0.8	50	0.5		38%	19	7	0.08
213	Officer's Closet	89	storage	warehouses	0	0	0	0.06	0.8	50	0.6		38%	19	7	0.08
214	Quarter Master	99	storage	warehouses	0	0	0	0.06	0.8	50	0.5		38%	19	7	0.08
216	Mechanical Room	274	storage	warehouses	0	0	0	0.06	0.8	150	0.5		38%	57	21	0.08
217	F.O.G.	98	storage	warehouses	0	0	0	0.06	0.8	25	0.3		38%	10	7	0.08
218	Unfinished Attic	2,667	storage	warehouses	0	0	10	0.06	0.8	1350	0.5		15%	203	200	0.08
219	Hall	497	Public Spaces	Corridors	0	0	0	0.06	0.8	300	0.6		15%	45	37	0.08
220	Unfinished Attic	2,549	storage	warehouses	0	0	0	0.06	0.8	1350	0.5		15%	203	191	0.08
222	Hall	168	Public Spaces	Corridors	0	0	0	0.06	0.8	100	0.6		38%	38	13	0.08

Natural Ventilation Index

Room No.	Room Name	Area (sq.ft.)	Natural Ventilation	
			Openable Area	% floor area
205	District Office	333	45	13.5%
204	Classroom	485	60	12.4%
201	Upper Lobby	893	22.5	2.5%
203	copy/supply	279	7.5	2.7%
202	chiefs office	390	60	15.4%
212	department office	468	45	9.6%
108	dispatch/radio	400	52.5	13.1%
106	Day Room	762	75	9.8%
103	Wellness	600	75	12.5%

As per 2018 IMC section 402.2, the minumum openable area to the outdoors shall be 4% of the floor area being ventilated.

FAN COIL UNIT SCHEDULE

DESIGNATION:	HV-1	
LOCATION	MER 131	
MANUFACTURER	FIRST CO.	
MODEL	16MB	
UNIT DIMENSIONS – WIDTH x HEIGHT x DEPTH (IN)	23x42x20	
DESIGN DATA:		
SUMMER OA TEMP (°F) DB/WB	95/72	
WINTER OA TEMP (°F)	10	
FILTERS:		
TYPE	1" MERV 8	
HOT WATER COIL:		
FACE AREA (SQ. FT.)		
No. OF ROWS/FINS PER INCH	3/12	
E.W.T./L.W.T. (°F)	140/110	
E.A.T./L.A.T. (°F)	44/85	
CAPACITY (MBH)	54	
GPM	3.6	
W.P.D. (FT H_2O)	2	
SUPPLY FAN:		
CFM	1200	
OAI CFM	525	
FAN MOTOR HP	½	
ESP (IN H_2O)	0.5	
VOLTS/ø/Hz	208/1/60	
FLA/MCA/MOCP	8/-/-	

NOTES:

PROVIDE THE FOLLOWING FEATURES & OPTIONS FOR EACH UNIT:
- UNITARY CONTROLLER BY AUTOMATIC TEMPERATURE CONTROLS MANUFACTURER, COMPATIBLE WITH THE BUILDING AUTOMATION SYSTEM.
- COORDINATE RIGHT-HAND/LEFT-HAND COIL CONNECTIONS IN THE FIELD.
- KEY LOCK ACCESS DOORS.
- FURNISH 2-WAY MODULATING CONTROL VALVE FOR EACH COIL, WITH PIPING PACKAGE AS PER DETAIL ON DRAWING M7.3. 5 PSI MAX AT CONTROL VALVE.
- FOR UNITS WITH OAI INLET: FREEZE STAT ARRANGED TO OVERRIDE THE COIL CONTROL VALVE & SHUT DOWN UNIT AS PER THE SEQUENCE OF OPERATIONS.
- WALL MOUNTED THERMOSTAT.
- FACTORY FURNISHED LOCAL DISCONNECT SWITCH.
- COIL AIR VENT.
- (2) SETS OF SPARE FILTERS FOR EACH UNIT.

VRF SYSTEM - INDOOR UNIT SCHEDULE

DESIGNATION	AC-1	AC-2	AC-3&4	AC-5&6
LOCATION	MER 114	ATTIC	ATTIC	ATTIC
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	FXTQ60TAVJUD	FXTQ54TAVJUD	FXTQ60TAVJUD	FXTQ36TAVJUD
WEIGHT OF UNIT (LBS)	167	167	167	150
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
SUCTION PIPE SIZE (IN)	5/8	5/8	5/8	–
LIQUID PIPE SIZE (IN)	3/8	3/8	3/8	–
DESIGN DATA:				
SUPPLY AIR (CFM)	1500	1500	1500	–
OUTDOOR AIR (CFM)	600	575	225	–
RETURN AIR (CFM)	900	925	1275	–
SUMMER OA TEMP (°F) DB/WB	92/74	92/74	92/74	–
SUMMER RA TEMP (°F) DB/WB	78/65	78/65	78/65	–
WINTER OA TEMP (°F)	10	10	10	–
WINTER RA TEMP (°F)	70	70	70	–
EVAPORATOR COIL (COOLING):				
E.A.T. (°F) DB/WB	80/67	80/67	80/67	–
L.A.T. (°F) DB/WB	55.2/55	57/53.1	55.2/55	–
CAPACITY (MBH) SENS./TOTAL	40.4/60	37.4/51.1	40.4/60	–
EVAPORATOR COIL (HEATING):				
E.A.T. (°F) DB	68	68	68	–
L.A.T. (°F) DB				–
CAPACITY (MBH) SENS./TOTAL	70.6	63.3	70.6	–
SUPPLY FAN:				
DESIGN AIRFLOW (CFM)	1500	1350		–
HP	1	1	1	–
ESP (IN H_2O)	.75	.75	.75	–
ELECTRICAL DATA:				
VOLTS/ø/Hz	208/1/60	208/1/60	208/1/60	208/1/60
MCA/MOCP (AMPS)	8.6/15	8.6/15	8.6/15	4.9/15

ADD-ALTERNATE

NOTES:
1. FIELD SUPPLIED LOCAL DISCONNECT SWITCH AT EACH INDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. UNIT SHALL INCLUDE INTERNAL CONDENSATE PUMP.
3. REMOTE DETECTION UNIT – TO BE FIELD INSTALLED IN THE INDOOR AC UNIT CASSETTE.
4. CONNECTOR AND CONNECTOR PROTECTOR.
5. DETECTOR INSTALLATION KIT.
6. ALARM CONTACT ARRANGED TO SHUT DOWN AC UNIT UPON PUMP FAILURE.
7. (1) EXTRA SET OF FILTERS PER UNIT.
8. AC-5&6 ARE ADD/ALT #1 WORK ONLY.

VRF SYSTEM - INDOOR UNIT SCHEDULE

INDOOR UNIT DESIGNATION	AC-A	AC-B	AC-C	AC-D
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	FXZQ12TAVJU	FXZQ18TAVJU	FXLQ12MVJU9	FXAQ18PVJU
TYPE	CEILING CASSETTE	CEILING CASSETTE	FLOOR CONSOLE	WALL MOUNTED
COOLING CAPACITY (TOTAL)(MBH)	12,000	18,000	12,000	12,000
HEATING CAPACITY (MBH)	13,500	20,000	13,500	13,500
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
LIQUID LINE (INCHES)	¼	¼	¼	¼
HOT GAS LINE (INCHES)	½	½	½	½
CONDENSATE LINE (INCHES)	¾	¾	¾	¾
CFM	350	500	280	500
VOLTS/ø/Hz	208/1/60	208/1/60	208/1/60	208/1/60
MCA (AMPS)	0.4	0.6	0.5	0.4

NOTES:
1. FIELD SUPPLIED LOCAL DISCONNECT SWITCH AT EACH INDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. UNIT SHALL INCLUDE INTERNAL CONDENSATE PUMP POWERED THROUGH THE INDOOR UNIT.
3. REMOTE DETECTION UNIT – TO BE FIELD INSTALLED IN THE INDOOR AC UNIT CASSETTE.
4. CONNECTOR AND CONNECTOR PROTECTOR.
5. DETECTOR INSTALLATION KIT.
6. ALARM CONTACT ARRANGED TO SHUT DOWN AC UNIT UPON PUMP FAILURE.

VRF SYSTEM - OUTDOOR CONDENSING UNIT SCHEDULE

OUTDOOR UNIT DESIGNATION	ACC-1	ACC-2	ACC-3	ACC-4
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	RELQ144TATJU	RELQ120TATJU	RELQ192TATJU	RELQ72TATJU
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
NOMINAL COOLING / HEATING CAPACITY (MBH)	144 / 162	120 / 135	192 / 216	72 / 81
LIQUID LINE (INCHES)	½	½	5/8	3/8
HOT GAS LINE (INCHES)	1-1/8	1-1/8	1-1/8	¾
HIGH/LOW PRESSURE LINE (INCHES)	7/8	¾	1-1/8	5/8
VOLTS/ø/Hz	208/3/60	208/3/60	208/3/60	203/3/60
MCA/MOCP	60.8 + 60.8 / 70 + 70	83.4/90	76.5 + 76.5 / 80 + 80	60.8/70
EER (NON-DUCTED/DUCTED)	12.9/12.6	13.7/12.4	12.5/12.7	–
IEER (NON-DUCTED/DUCTED)	22.5/18.6	23.4/19.6	22.4/19	–
COP (NON-DUCTED/DUCTED)	3.81/3.55	3.98/3.51	3.85/3.59	–
WEIGHT (LBS.)	1,452	793	1,586	727
HEIGHT x WIDTH x LENGTH (IN)	67x98x30	67x49x30	67x98x30	67x49x30
VRF SYSTEM - UNIT COMBINATIONS				
OUTDOOR UNIT DESIGNATION	ACC-1	ACC-2	ACC-3	ACC-4
INDOOR UNITS SERVED	AC-1 (MER 114)	AC-A (DEPT OFFICE)	AC-3 (ATTIC)	AC-5 (ATTIC)
	AC-D (EXERCISE)	AC-B (CHIEF'S OFFICE)	AC-4 (ATTIC)	AC-6 (ATTIC)
	AC-D (EXERCISE)	AC-D (COPY/SUPPLY)	AC-D (AIR ROOM)	
	AC-D (EXERCISE)	AC-A (CLASSROOM)	AC-C (STAIR 2)	
	AC-A (DISPATCH)	AC-A (CLASSROOM)	AC-C (HALL 224)	
	AC-A (IT/SERVER)	AC-A (DISTRICT OFFICE)		
	AC-C (DAY ROOM)	AC-2 (ATTIC)		
	AC-C (DAY ROOM)			
	AC-C (LOBBY)			

ADD-ALTERNATE

NOTES:
1. OUTDOOR CONDENSERS SERVE MULTIPLE INDOOR UNITS. REFER TO SCHEDULE FOR INDOOR/OUTDOOR UNIT CONFIGURATIONS. REFER TO RISERS AND MANUFACTURER'S INSTALLATION REQUIREMENTS FOR PIPING DETAILS.
2. PROVIDE THE FOLLOWING OPTIONS FOR EACH UNIT:
- 0° LOW AMBIENT CONTROLS.
- 7-DAY PROGRAMMABLE WIRED SYSTEM CONTROLLER WITH ALARM OUTPUT.
2. FIELD SUPPLIED WEATHERPROOF LOCAL DISCONNECT SWITCH AT EACH OUTDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
3. THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE CONTROL WIRING BETWEEN THE OUTDOOR UNIT AND INDOOR UNIT.
4. ACC-4 IS ADD-ALT #1 WORK ONLY.

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
50 Broadway, Hawthorne, NY 10532
8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
MECHANICAL SCHEDULES

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 085467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
M6.2

©2020 Sullivan Architecture