


UNIT HEATER SCHEDULE											
SYMBOL	TYPE *	C.F.M.	M.B.H.	P.D. FT. HD.	GPM	H.P.	ELECT. CHARACT.	REFERENCE		REMARKS	
								MFG.	MODEL NO.		
UH-1 THRU UH-24	VM	1120	39.0	0.60	4.7	1/12	120V-1Ø	MODINE	HSB/MC 63	1., *UH-11 THRU UH-22 *BB-2	
REMARKS NOTES: VC = VERTICAL MOUNTED, SUSPENDED FROM CEILING H = HORIZONTAL MOUNTED, SUSPENDED FROM CEILING 1. REPLACE EXISTING UNIT HEATER. SEE DETAIL.											

	ROOFTOP GAS HEAT/ELECTRIC A.C. PACKAGE UNIT SCHEDULE														SUMMER: O.A.=88.4" WG/71.7" DB R.A.=75" WG/62" DB				WINTER: O.A.=20" WG/0.3" DB R.A.=70" WG/58" DB			
	BASIS OF DESIGN		DUCT CONNECTIONS	SERVES	SUPPLY FAN PERFORMANCE			COOLING COIL DATA (DX)			HEATING DATA (NAT. GAS)			ELECTRICAL DATA			WEIGHT (LBS.)	REMARKS				
SYMBOL	MFG./MODEL	MODEL NO.			SUPPLY C.F.M.	O.A. C.F.M.	E.S.P. (IN. WC)	TOTAL M.B.H.	SENSIBLE M.B.H.	S.E.E.R.	STAGES	INPUT M.B.H.	OUTPUT M.B.H.	SSE %	STAGES	M.C.A.			M.O.P.	VOLTAGE		
RTU-17	YORK/PCG	PC04A361004X4	BOTTOM	TECH SUPPLY	1400	200	0.40	35.8	29.8	11.8	TWO	100	80	81	TWO	8.8	15	460V-3Ø	383	① ②		
RTU-18	YORK/PCG	PC04B601004X4	BOTTOM	AVIONICS	2000	360	0.83	56.5	45.1	11.2	TWO	100	80	81	TWO	12.0	20	460V-3Ø	475	① ②		
RTU-19	YORK/PCG	PC04B601004X4	BOTTOM	CH47,UH60 OFFICES	2000	480	0.83	56.5	45.1	11.2	TWO	100	80	81	TWO	12.0	20	460V-3Ø	475	① ②		
RTU-20	YORK/PCG	PC04A361004X4	BOTTOM	CORRIDOR	1100	200	0.76	34.6	26.8	11.8	TWO	100	80	81	TWO	8.8	15	460V-3Ø	383	① ②		
RTU-21	YORK/PCG	PC04A361004X4	BOTTOM	PHARMACY	1400	200	0.40	35.8	29.8	11.8	TWO	100	80	81	TWO	8.8	15	460V-3Ø	383	① ②		
RTU-22	YORK/PCG	PC04A361004X4	BOTTOM	PBO, UH60, CH47	1400	300	0.70	38.1	29.3	11.8	TWO	100	80	81	TWO	8.8	15	460V-3Ø	383	① ②		

REMARKS  
① UNIT SHALL BE SUPPLIED WITH FULL PERIMETER 14" HIGH ROOF CURB, FULLY MODULATING ECONOMIZER WITH BAROMETRIC RELIEF, DOUBLE WALL +R-13 FOAM INSULATION, STAINLESS STEEL DRAIN PAN AND FIELD INSTALLED JOHNSON CONTROLS THAT WILL OPERATE ROOF TOP UNIT AND ASSOCIATED SPACE TEMPERATURE SENSORS THRU THE BUILDING'S CONTROL SYSTEM.  
② UNIT SHALL BE SUPPLIED WITH R-410A HIGH EFFICIENCY SCROLL COMPRESSOR. CONNECT UNITS TO JOHNSON CONTROLS BMS.

EXHAUST FAN SCHEDULE												
SYMBOL	LOCATION	BASIS OF DESIGN		TYPE	C.F.M.	E.S.P.	R.P.M.	ELECTRICAL CHARACTERISTICS			REMARKS	
		MFG.	MODEL NO.					HP	FAN MOTOR AMPS	VOLTAGE		
EF-1	POL. STORAGE 119A	GREENHECK	CUE-095	UB	600	0.125	1725	1/12	0.45	15	115V-1Ø	① ② ③
EF-2	POL. STORAGE 119B	GREENHECK	CUE-095	UB	775	0.125	1725	1/12	0.45	15	115V-1Ø	① ② ③
EF-3	POL. STORAGE 119C	GREENHECK	CUE-095	UB	600	0.125	1725	1/12	0.45	15	115V-1Ø	① ② ③
EF-4	POL. STORAGE 133	GREENHECK	CUE-095	UB	600	0.125	1725	1/12	0.45	15	115V-1Ø	① ② ③
EF-5	POL. STORAGE, BATTERY ROOM	GREENHECK	CUE-095	UB	1800	0.125	1725	1/2	9.8	20	115V-1Ø	① ② ③ ④
LEV-1	MACHINE SHOP	IAP AIR PRODUCTS	----	FILTER	1050	0.7	----	3.0	4.8	15	460V-3Ø	④ *BB-2
LEV-2	BLADE SHOP	SENTRY AIR SYS.	MODEL425	FILTER	733	0.7	----	—	5.4	15	115V-1Ø	④ *BB-2

REMARKS  
① FURNISH AND INSTALL WITH INTERNAL BACKDRAFT DAMPER AND BIRDSCREEN. PROVIDE ROOF CURB.  
② CONNECT FAN WITH DIRECT DRIVE. CONNECT FAN STATUS TO BMS.  
③ FURNISH AND INSTALL WITH GREENHECK MODEL SWSSC SPEED CONTROLLER (OR APPROVED EQUAL) FOR BALANCING TO SCHEDULED CFM.  
④ FUME ARM MODEL #FA-0814-H. FAN MODEL #FAN-DM-0808-3HP-3P. FILTER MODEL #FAN-EFA-08 (OR APPROVED EQUAL). PROVIDE STAINLESS STEEL ARM, EXTENSION BOOMS, LIGHT KITS, WALL MOUNT KIT, AND 20" DIAMETER HOOD.  
⑤ PROVIDE FLOW SWITCH. A CONTRACTOR TO WIRE FLOW SWITCH FOR EXHAUST FAN / OUTLETS.

TYPE  
UB = UPBLAST CENTRIFUGAL  
C = CEILING  
DDC = DIRECT DRIVE, CENTRIFUGAL

SYMBOL	BASIS OF DESIGN		SERVING	ENERGY RECOVERY WHEEL										HEATING - NATURAL GAS				COOLING - DX SCROLL				ELECTRICAL DATA			WEIGHT (LBS.)	REMARKS
				O.A./E.A.	C.F.M.	E.S.P.	EXCH. EFF.	FAN H.P.	SUMMER L.A.T. D.B./W.B. (°F)	WINTER L.A.T. D.B./W.B. (°F)	E.A.T. (°F)	L.A.T. (°F)	INPUT (MBH)	OUTPUT (MBH)	E.A.T. (°F) D.B./W.B.	L.A.T. (°F) D.B./W.B.	TOTAL (MBH)	SENS. (MBH)	M.C.A.	M.O.P.	VOLTAGE					
ERV-1	SPINNAKER	RERV-XXLD-1533	LOCKER	O.A.	1225	0.5	81.6	2.0	79.2/66.6	41.2/35.3	55.5	91.5	100	80	N/A	N/A	N/A	N/A	10.3	15	460V-3Ø	5,200	① ② ③			
			LOCKER	E.A.	1225	0.5	81.6	1.5	90.8/74.9	27.5/27.5																
ERV-2	SPINNAKER	RERV-XXLD-1533	LOCKER	O.A.	2200	0.5	81.6	2.0	79.2/66.6	41.2/35.3	55.5	91.5	100	80	N/A	N/A	N/A	N/A	10.3	15	460V-3Ø	5,200	① ② ③ *BB-2			
			LOCKER	E.A.	2200	0.5	81.6	1.5	90.8/74.9	27.5/27.5																
ERV-3	SPINNAKER	RERV-XXLD-1533	LOCKER	O.A.	2500	0.5	81.6	2.0	79.2/66.6	41.2/35.3	55.5	91.5	100	80	N/A	N/A	N/A	N/A	10.3	15	460V-3Ø	5,200	① ② ③ *BB-2			
			LOCKER	E.A.	2500	0.5	81.6	1.5	90.8/74.9	27.5/27.5																

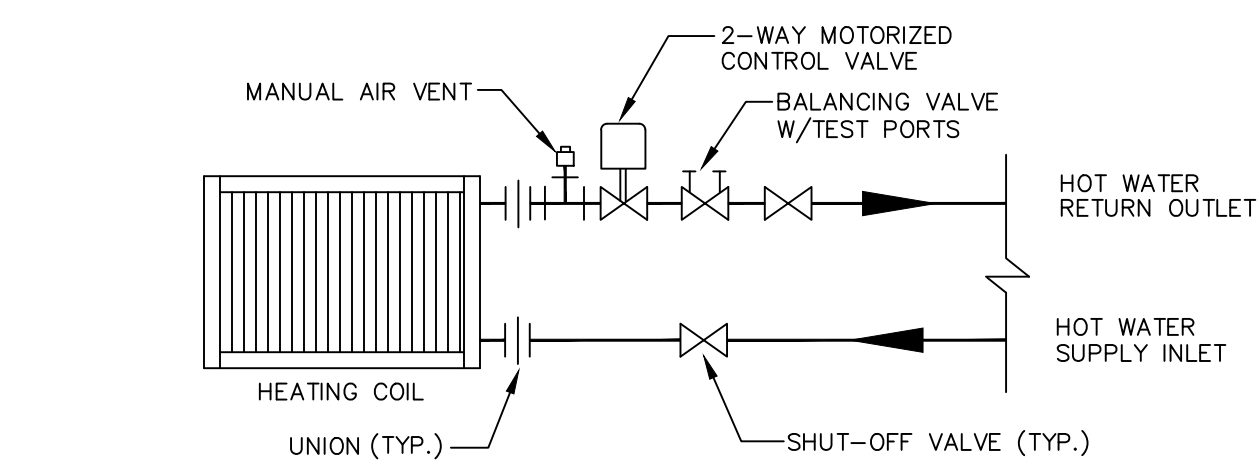
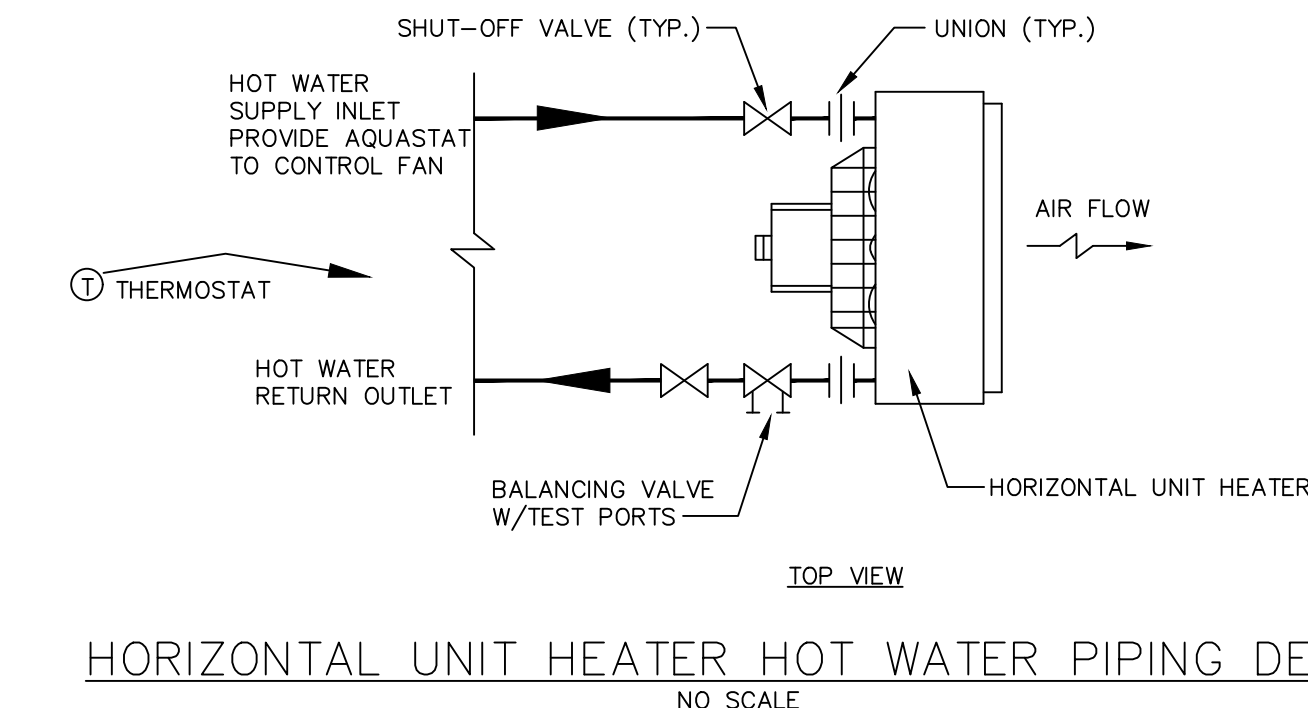
REMARKS  
① HVAC CONTRACTOR SHALL PROVIDE BACKNET CONTROLLER FOR INTEGRATION INTO THE JOHNSON METASYS BUILDING MANAGEMENT SYSTEM.  
② UNIT SHALL BE PROVIDED WITH HAIL GUARDS, MODULATING FROST CONTROL, MERV8 FILTERS ON OUTDOOR AND EXHAUST AIR, MOTORIZED LOW LEAKAGE DAMPERS ON OUTDOOR AND RETURN AIR, UNOCCUPIED RECIRCULATION DAMPER, INTERNALLY MOUNTED CONTROL CENTER WITH MOTOR STARTERS, CONTROLS TRANSFORMER, ELECTRICAL DISCONNECT SWITCH, & INTEGRAL 120V CONVENIENCE OUTLET THAT REMAINS ENERGIZED WHILE POWER TO THE UNIT IS SHUT OFF (COORDINATE WITH ELECTRICAL CONTRACTOR).  
③ HVAC CONTRACTOR SHALL PROVIDE AND INSTALL LP REGULATOR (5 PSI INLET) TO PROVIDE ERV MANUFACTURER'S RECOMMENDED LP PRESSURE TO ERV.

HEAT PUMP CONDENSING UNIT SCHEDULE											(ARI CAPACITIES)	
SYMBOL	BASIS OF DESIGN		COOLING CAPACITY		HEATING CAPACITY		ELECTRICAL CHARACTERISTICS			REMARKS		
	MFG.	MODEL NO.	TOTAL MBH	S.E.E.R.	TOTAL MBH	HSPF	POWER SUPPLY M.C.A.	M.O.P.	VOLTAGE			
CU-1,2,3	YORK	DHM42CMB21S	46.3	16	44.5	10.2	24	30	208/60/1	① ② CU-1,3 *BB-2		

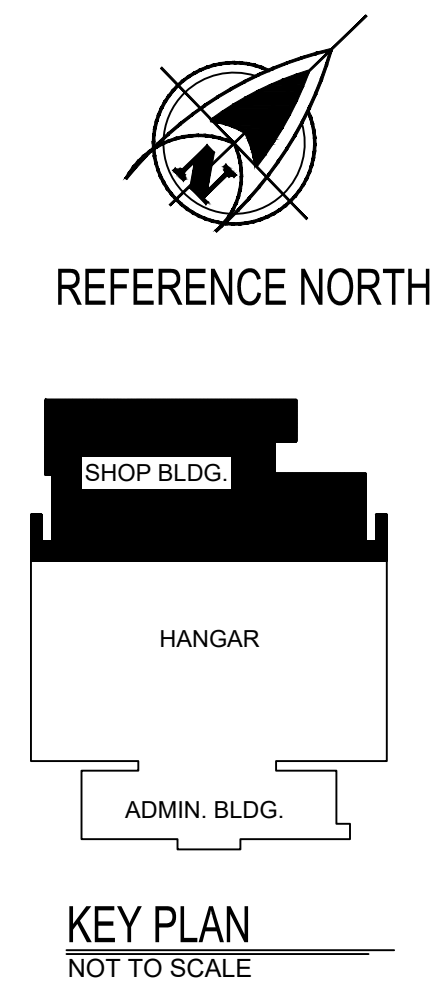
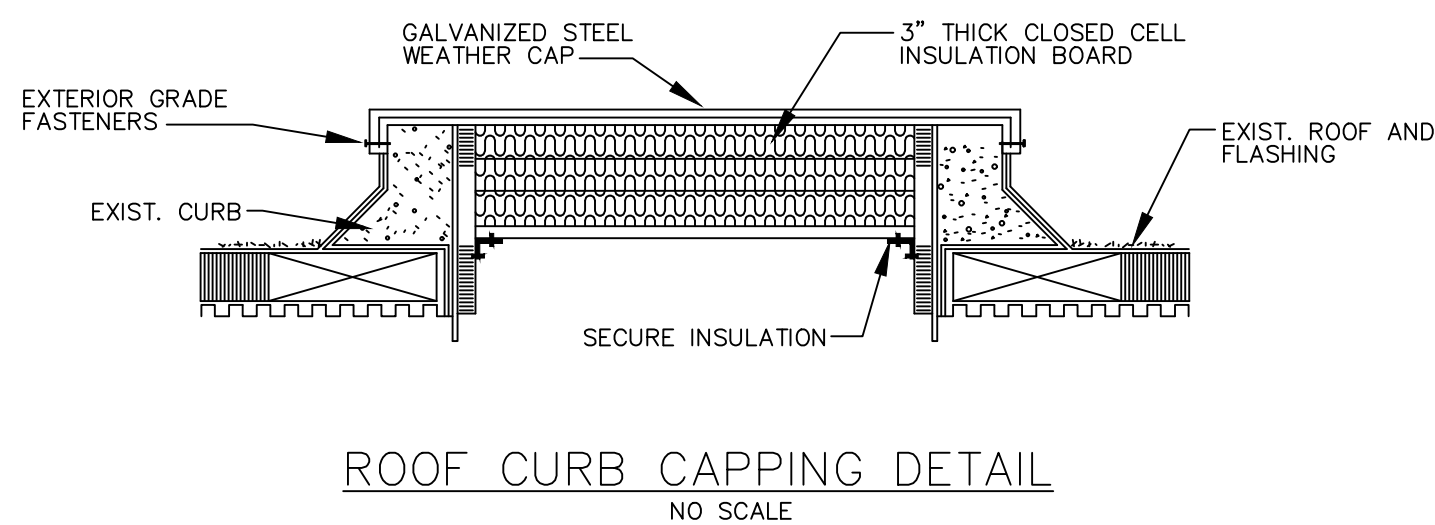
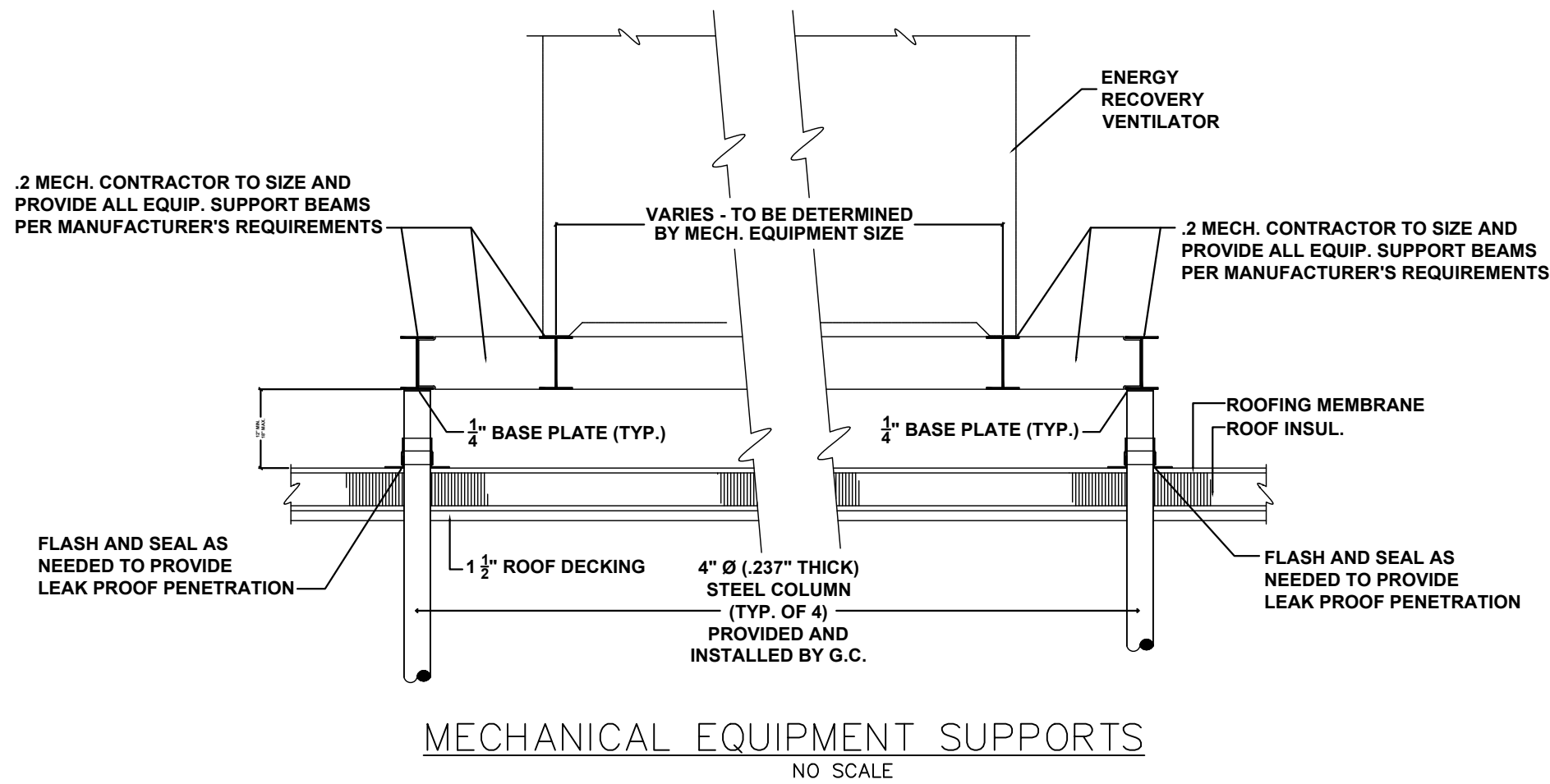
DUCTLESS A/C FAN COIL UNIT SCHEDULE													(ARI CAPACITIES)	
SYMBOL	BASIS OF DESIGN		SUPPLY FAN	COOLING CAPACITY DATA				HEATING CAPACITY DATA			ELECTRICAL CHARACTERISTICS		REMARKS	
	MFG.	MODEL NO.	TOTAL C.F.M.	TOTAL M.B.H.	E.A.T.		TOTAL M.B.H.	E.A.T.		POWER SUPPLY FUSE AMPS	VOLTAGE			
FC-1,2,3,4,5,6	YORK	DHY24NWB21S	647	24.0	80	67	25.0	70	60	N/A	COND-UNIT	FC-1,2,5,6 *BB-2		

REMARKS  
① UNIT SHALL BE PROVIDED WITH THE FOLLOWING ACCESSORIES: TIME DELAY RELAY, LOW AMBIENT CONTROLLER, WINTER START CONTROL, EVAPORATOR DEFROST CONTROL KIT, HIGH/LOW PRESSURE CUT-OUT SWITCH.  
② NOTE: MAX LINESET LENGTH SHALL BE UNDER 66' AND SHALL BE PRE-INSULATED. RUN TIGHT TO WALL. PROVIDE LINESET COVER KITS. PROVIDE MANUFACTURER'S WALL MOUNT KIT OR EQUIPMENT PAD. PROVIDE COND PUMP & RUN CONDENSATE IN 1/2" PVC TO 18" ABOVE GRADE.

CABINET UNIT HEATER SCHEDULE										
SYMBOL	TYPE *	C.F.M.	M.B.H.	P.D. FT. HD.	GPM	H.P.	ELECT. CHARACT.	REFERENCE		REMARKS
								MFG.	MODEL NO.	
CUH-1,2,3,4	VC	230	16.4	0.30	2.3	0.03	120V-1 $\phi$	STERLING	002	① ③
CUH-5	H	230	16.4	0.30	2.3	0.03	120V-1 $\phi$	STERLING	002	① ②
REMARKS NOTES:										
* VC = VERTICAL CABINET FLOOR OR WALL MOUNTED		① WALL MOUNTED. 2 CONTRACTOR TO DISCONNECT		③ PROVIDE CUSTOM FABRICATED METAL COVER						
H = HORIZONTAL MOUNTED, SUSPENDED FROM CEILING		ELECTRIC AND RECONNECT ON NEW UNIT.		FOR ABOVE, BELOW, AND AROUND UNIT.						
		② PROVIDE DUCTWORK, GRILLES AND ACCESSORIES								
		AS REQUIRED.								



2-WAY VALVE COIL PIPING DETAIL TYPICAL  
NO SCALE



NO.	DESCRIPTION	DATE
REVISIONS		
Professional's Signature _____ Date _____		
COMMONWEALTH OF PENNSYLVANIA DEPT. OF MILITARY & VETERAN'S AFFAIRS ANNVILLE, PENNSYLVANIA 17003		
DESIGN PROFESSIONALS: OFFICE OF FACILITIES AND ENGINEERING BUREAU OF DESIGN AND PROJECT MANAGEMENT BLDG. 0-10, FORT INDIANTOWN GAP ANNVILLE, LEBANON COUNTY, PENNSYLVANIA		
PROJECT NO.: 42190080		
19-101 HVAC/LED UPGRADES "NORTH" AREA 19 - FORT INDIANTOWN GAP ANNVILLE, LEBANON COUNTY, PENNSYLVANIA		
HVAC SCHEDULES		
DRAWN BY C. KITA	DATE 14 OCT 2022	DRAWING NO. H.3.1
CHECKED BY B. TOEVS	SCALE AS NOTED	