

PRIMARY AIR UNIT SCHEDULE (HEAT RECOVERY UNIT WITH PLATE HEAT EXCHANGER)																																	
NO.	LOCATION	SERVICE	MIN OA	SUPPLY AIR FAN					EXHAUST AIR FAN					CHILLED WATER COOLING COIL							HEATING HOT WATER COIL							WEIGHT	BASIS OF DESIGN		REMARKS		
			CFM	CFM	TSP IN.WG.	RPM	HP	V/ø/HZ	CFM	TSP IN.WG.	RPM	HP	V/ø/HZ	TOT./SENS. CAPACITY BTU/HR	EAT DB/WB(°F)	LAT DB/WB(°F)	LWT °F	GPM	ROWS	AIR PD	FPI	CAPACITY BTU/HR	EAT °F	LAT °F	LWT °F	AIR PD	GPM	ROWS	FPI	LBS		MANUFACTURER	MODEL
PAU-1	ROOF	SOUTH—WEST CLASSROOMS	9,775	11,520	4.0	1750	15.0	480/3/60	11,355	3.0	1750	15.0	480/3/60	697,238/358,381	82.9/72.4	49.8/49.8	56.0	115.6	8	1.01	10	258,616	40.9	65.1	140.7	0.05	15.0	1	6	9500	VENMAR CES	VHC	1, 2, 3, 4, 5, 6, 7.
PAU-2	ROOF	NORTH—EAST CLASSROOMS	8,230	8,440	4.0	1750	10.0	480/3/60	10,480	3.0	1750	10.0	480/3/60	574,293/294,415	82.4/72.2	50.1/50.1	56.0	95.3	6	0.91	13	204,928	42.1	65.0	133.4	0.04	10.0	1	6	8300	VENMAR CES	VHC	1, 2, 3, 4, 5, 6, 7.

NOTES:  
1. SUPPLY AND EXHAUST AIR FAN SHALL BE BELT DRIVE.  
2. CHILLED WATER EWT: 45.0°F. HEATING HOT WATER EWT: 180.0°F.

3. FILTER SHALL BE MERV 8, 40% EFFICIENCY, 2" THICK, PLEATED TYPE AND TESTED IN ACCORDANCE WITH ASHRAE STANDARD 52-76.  
4. PROVIDE HEAT EFFICIENCY MOTOR WITH THERMAL OVERLOAD PROTECTION.

5. PROVIDE DISCONNECT SWITCH.  
6. MAXIMUM COIL FACE VELOCITY: 480 FPM.

7. PROVIDE 18" HIGH ROOF CURB.

CENTRAL AIR CONDITIONING UNIT SCHEDULE (HEAT RECOVERY UNIT WITH HEAT RECOVERY WHEEL) – 2 PIPE (SINGLE COIL)																																
NO.	LOCATION	SERVICE	MIN OA	SUPPLY AIR FAN					EXHAUST AIR FAN					CHILLED WATER COOLING COIL										HEATING HOT WATER COIL					WEIGHT	BASIS OF DESIGN		REMARKS
			CFM	CFM	TSP IN.WG.	RPM	HP	ELECTRICAL V/ø/HZ	CFM	ESP IN.WG.	RPM	HP	ELECTRICAL V/ø/HZ	TOT./SENS. CAP. BTU/HR	EAT DB/WB(°F)	LAT DB/WB(°F)	LWT °F	GPM	ROWS	FPI	AIR PD	CAPACITY BTU/HR	EAT °F	LAT °F	LWT °F	AIR PD	GPM	LBS		MANUFACTURER	MODEL	
CAC-1	OPEN MECHANICAL AREA #x44	FIRST FLOOR	4,200	7,300	4.0	1750	15.0	480/3/60	4,200	3.0	1750	15.0	480/3/60	251,217/186,497	78.4/65.7	55.2/54.3	56.0	41.78	4	11	0.56	197,751	55.0	80.0	169.2	0.05	42.0	7,500	VENMAR CES	VHC	1, 2, 3, 4, 5, 6, 7, 8.	
CAC-3	OPEN MECHANICAL AREA #x44	SECOND FLOOR	2,300	11,250	4.0	1750	20.0	480/3/60	2,300	2.7	1750	20.0	480/3/60	316,337/258,806	76.1/63.6	55.1/54.1	56.0	52.60	4	10	0.48	282,145	66.2	89.6	167.7	0.05	52.6	11,500	VENMAR CES	VHC	1, 2, 3, 4, 5, 6, 7, 8.	

NOTES:  
1. SUPPLY AND EXHAUST AIR FAN SHALL BE BELT DRIVE.  
2. CHILLED WATER EWT: 45.0°F. HEATING HOT WATER EWT: 180.0°F.

3. FILTER SHALL BE MERV 8, 40% EFFICIENCY, 2" THICK, PLEATED TYPE AND TESTED IN ACCORDANCE WITH ASHRAE STANDARD 52-76.  
4. PROVIDE HEAT EFFICIENCY MOTOR WITH THERMAL OVERLOAD PROTECTION.

5. PROVIDE DISCONNECT SWITCH.  
6. MAXIMUM COIL FACE VELOCITY: 480 FPM.

7. PROVIDE WALL-MOUNTED THERMOSTAT SET AT 70.0°F HEATING (ADJUSTABLE), 75.0°F COOLING (ADJUSTABLE).

8. PROVIDE 18" HIGH ROOF CURB.

CENTRAL AIR CONDITIONING UNIT SCHEDULE – 2 PIPE (SINGLE COIL)																												
NO.	LOCATION	SERVICE	MIN OA	SUPPLY AIR FAN					CHILLED WATER COOLING COIL									HEATING HOT WATER COIL					WEIGHT	BASIS OF DESIGN		REMARKS		
				CFM	CFM	ESP IN.WG.	TYPE	RPM	HP	ELECTRICAL V/ø/HZ	TOT./SENS. CAPACITY BTU/HR	EAT DB/WB(°F)	LAT DB/WB(°F)	EWT °F	LWT °F	GPM	ROWS	FPI	CAPACITY BTU/HR	EAT °F	LAT °F	EWT °F		LWT °F	GPM		LBS	MANUFACTURER
CAC-2	OPEN MECHANICAL AREA #x44	1ST, 2ND, 3RD & 4TH FLOOR	790	3,350	1.5	BELT DRIVE	1750	2.0	480/3/60	94,813/88,779	79.2/62.8	55.0/53.0	45.0	55.8	16.1	5	10	200,922	55.0	109.8	180.0	84.3	4.2	3,000	MCQUAY	OAH008GDAC	1, 2, 3, 4, 5, 6, 7.	
CAC-4	OPEN MECHANICAL AREA #x44	FOURTH FLOOR	560	3,500	1.5	BELT DRIVE	1750	2.0	480/3/60	91.058/88,330	79.9/61.6	55.0/53.0	45.0	55.8	15.4	5	10	188,600	60.0	109.3	180.0	85.7	4.0	3,000	MCQUAY	OAH008GDAC	1, 2, 3, 4, 5, 6, 7.	
CAC-5	OPEN MECHANICAL AREA #x44	COMPUTER CLASSROOM #404	780	1,200	1.5	BELT DRIVE	1750	1.0	480/3/60	57,770/42,392	86.7/69.4	55.0/53.0	45.0	55.9	9.7	5	12	115,562	25.2	113.3	180.0	87.6	2.3	1,800	MCQUAY	OAH004GDAC	1, 2, 3, 4, 5, 6, 7.	

NOTES:  
1. PROVIDE MIXING BOX WITH OUTSIDE AND RETURN AIR DAMPERS.  
2. PROVIDE 18" HIGH ROOF CURB.

3. FILTER SHALL BE MERV 8, 40% EFFICIENCY, 2" THICK, PLEATED TYPE AND TESTED IN ACCORDANCE WITH ASHRAE STANDARD 52-76.  
4. PROVIDE HEAT EFFICIENCY MOTOR WITH THERMAL OVERLOAD PROTECTION.

5. PROVIDE DISCONNECT SWITCH.  
6. MAXIMUM COIL FACE VELOCITY: 500 FPM.

7. PROVIDE WALL-MOUNTED THERMOSTAT SET AT 70.0°F HEATING (ADJUSTABLE), 75.0°F COOLING (ADJUSTABLE).

MAKE-UP AIR UNIT SCHEDULE – 2 PIPE (SINGLE COIL)																												
NO.	LOCATION	SERVICE	MIN OA	SUPPLY AIR FAN							CHILLED WATER COOLING COIL								HEATING HOT WATER COIL					WEIGHT	BASIS OF DESIGN		REMARKS	
				CFM	ESP	TSP	TYPE	RPM	BHP	ELECTRICAL	TOT./SENS. CAPACITY	EAT	LAT	EWT	LWT	GPM	ROWS	FPI	CAPACITY	EAT	LAT	EWT	LWT		GPM			
			IN.WG.		IN.WG.	V/ø/HZ				BTU/HR	DB/WB(°F)	DB/WB(°F)	°F	°F	°F				°F	BTU/HR	°F	°F	°F	°F				
MAU-1	OPEN MECHANICAL AREA #X44	KITCHEN HOOD	2,670	2,670	0.5	1.3	BELT DRIVE	940	1.0	208/3/60	42,091/37,301	93.0/75.0	80.0/72.0	45.0	57.2	7.0	2	6	187,837	10.0	74.3	180.0	155.0	15.0	1,500	MCQUAY	OAH008GDAC	1, 2, 3, 4, 5, 6, 7.

NOTES:  
1. FILTER SHALL BE MERV 8, 40% EFFICIENCY, 2" THICK, PLEATED TYPE AND TESTED IN ACCORDANCE WITH ASHRAE STANDARD 52-76.

2. PROVIDE 18" HIGH ROOF CURB.  
3. PROVIDE HEAT EFFICIENCY MOTOR WITH THERMAL OVERLOAD PROTECTION.

4. PROVIDE DISCONNECT SWITCH.  
5. MAXIMUM COIL FACE VELOCITY: 350 FPM.

6. PROVIDE WALL-MOUNTED THERMOSTAT SET AT 68.0°F (ADJUSTABLE).  
7. CONTROL INTERLOCK WITH KEF-1.

COOLING TOWER SCHEDULE																						
NO.	CELLS	NO. OF FANS PER CELL	CELL PERFORMANCE DATA				MOTOR		ELECTRIC IMMERSION HEATER KW	PIPE CONNECTION SIZE					TOWER PHYSICAL DATA					BASIS OF DESIGN		REMARKS
			OA TEMP. WB °F	GPM PER CELL	EWT °F	LWT °F	ELECTRICAL V/ø/HZ	HP PER FAN		INLET IN.	OUTLET IN.	MAKE-UP IN.	OVERFLOW IN.	DRAIN IN.	MAX. LENGTH FT.-IN.	MAX. WIDTH FT.-IN.	MAX. HEIGHT FT.-IN.	MAX. OPERATING WEIGHT LBS	MAX. SHIPPING WEIGHT LBS	MANUFACTURER	MODEL	
CT-1	1	1	76	450	94	85	480/3/60	25	5.0	6	6	1	3	2	12'-0"	5'-0"	12'-0"	5,500	4,000	BALTIMORE AIRCOIL	VTO-155-N	1, 2, 3.
CT-2	1	1	76	450	94	85	480/3/60	25	5.0	6	6	1	3	2	12'-0"	5'-0"	12'-0"	5,500	4,000	BALTIMORE AIRCOIL	VTO-155-N	1, 2, 3.

NOTES:  
1. PROVIDE EACH FAN MOTOR WITH VARIABLE FREQUENCY DRIVE.

2. PROVIDE VIBRATION ISOLATION RAIL AND VIBRATION CUTOUT SWITCH FOR THE UNIT.

3. PROVIDE BASIN WATER LEVEL CONTROL AND BASIN HEATER.

PUMP SCHEDULE								
NO.	LOCATION	GPM	HEAD	ELECTRICAL		BASIS OF DESIGN		REMARKS
			FEET	HP	V/ø/HZ	RPM	MANUFACTURER	
CHW/HW-P-1	BSMT CHILLER RM	300	100	15	480/3/60	1750	ARMSTRONG	4030-4X3X10
CHW/HW-P-2	BSMT CHILLER RM	300	100	15	480/3/60	1750	ARMSTRONG	4030-4X3X10
CHW/HW-P-3	BSMT BOILER RM	150	80	7.5	480/3/60	1750	ARMSTRONG	4030-3X2X10
CHW/HW-P-4	BSMT BOILER RM	150	80	7.5	480/3/60	1750	ARMSTRONG	4030-3X2X10
CW-P-1	BSMT CHILLER RM	450	100	20	480/3/60	1750	ARMSTRONG	4030-4X3X11.5
CW-P-2	BSMT CHILLER RM	450	100	20	480/3/60	1750	ARMSTRONG	4030-4X3X11.5

NOTES:  
1. PROVIDE SKID MOUNTED PUMP PACKAGE TOGETHER WITH AIR SEPARATOR, EXPANSION TANK (IF REQUIRED), AND PUMP MOTOR ELECTRICAL GEARS (WIRED WITH FUSED DISCONNECT, STARTER IN NEMA 1 BOX).  
2. PROVIDE VARIABLE FREQUENCY DRIVE FOR CHW/HW-P-1, P-2, P3, AND P4. MOTORS SHALL BE HIGH EFFICIENCY, EQUIPPED WITH THERMAL OVERLOAD AND SUITABLE FOR VARIABLE FREQUENCY DRIVE CONTROL.

CHILLER SCHEDULE																			
NO.	CAPACITY NOMINAL TON	KW/TON	CHILLED WATER					CONDENSER WATER					COMPRESSOR		ELECTRICAL	REFRIGERANT	WEIGHT LBS	BASIS OF DESIGN	
			GPM	EWT °F	LWT °F	PASS	P.D. FEET	GPM	EWT °F	LWT °F	PASS	P.D. FEET	KW	FLA	V/ø/HZ			MANUFACTURER	MODEL
CH-1	300	0.613	586	57.0	45.0	2	12.0	879	85.0	93.0	2	10	179.6	—	480/3/60	134-A	12,000	MCQUAY	WMC300DSC

FUEL OIL PUMP SCHEDULE											
NO.	LOCATION	GPH	PSI	ELECTRICAL			TYPE	WEIGHT	BASIS OF DESIGN		REMARKS
				HP	V/ø/HZ	RPM		LBS	MANUFACTURER	MODEL	
FOP-1	BSMT BOILER RM	90	100	1/4	115/1/60	1800	FLEX COUPLED PUMP	250	ALYAN PUMP	OLE-1800	FOM-90-XX STAINER, AND NEMA 1 PANEL
FOP-2	BSMT BOILER RM	90	100	1/4	115/1/60	1800	FLEX COUPLED PUMP	250	ALYAN PUMP	OLE-1800	FOM-90-XX STAINER, AND NEMA 1 PANEL

CAST IRON HEATING HOT WATER BOILER SCHEDULE											
NO.	LOCATION	FUEL	BURNER CAPACITY		GROSS I-B-R RATING (MBH)	NET I-B-R RATING (MBH)	BOILER HP	FLUE DUCT	BASIS OF DESIGN		REMARKS
			GAS MBH	OIL GPH					BOILER	UNIT WEIGHT LBS	
HWB-1	BSMT BOILER RM	GAS & OIL	2163	15.0	1699	1310	51.0	12"	HB SMITH 3500A SERIES	7,000	POWER FLAME C2-GO-15
HWB-2	BSMT BOILER RM	GAS & OIL	2163	15.0	1699	1310	51.0	12"	HB SMITH 3500A SERIES	7,000	POWER FLAME C2-GO-15

COMBUSTION AIR FAN SCHEDULE											
NO.	LOCATION	SERVICE	FAN			MOTOR		BASIS OF DESIGN			REMARKS
			TYPE	CFM	ESP IN.WG.	RPM	HP	MANUFACTURER	MODEL	CONTROL INTERLOCK	
SF-B1	BSMT CHILLER RM	BOILER ROOM COMBUSTION AIR	CABINET FAN	3500	0.375	536	1	PENN VENTILATION	ZEPHYR ZC15	BOILER	PROVIDE FILTER SECTION

