BAS POINTS LIST

POINT NAME	QTY	DEVICE	AI	AO	DI	DO	FAIL POSITION	ALARM	NOTE
AIR TERMINAL UNITS									
SPACE TEMP	SEE PLANS	WALL TEMP SENSOR	X					HI & LO	
SPACE HUMIDITY	SEE PLANS	WALL HUMIDITY SENSOR	X					HI & LO	
DISCHARGE TEMP	SEE PLANS	DUCT TEMP SENSOR	X					HI & LO	
DAMPER % OPEN	SEE PLANS	VAV BOX DAMPER		X			LAST		
ZONE CFM	SEE PLANS	VAV BOX AIR MEASUREMENT	X						
MODULATE HW VALVE	SEE PLANS	REHEAT COIL 2-WAY MODULATING VALVE		X			LAST		

POINT NAME	QTY	DEVICE	AI	AO	DI	DO	FAIL POSITION	ALARM	NOTE
AHU-R6									
OUTSIDE AIR TEMPERATURE	1	EXISTING							USE EXISTING BAS READING
OUTSIDE AIR DAMPER	1	DAMPER FURNISHED WITH AHU				X			DAMPER FURN. WITH AHU, PROVIDE ACTUATOR
OUTSIDE AIR DAMPER POSITION	1	END SWITCH			X				
PRE & FINAL FILTER LOADING	2	DIFFERENTIAL PRESSURE SENSOR			X			FILTER CHANGE	
TEMP DOWNSTREAM OF HEAT RECOVERY	1	DUCT TEMP SENSOR	X						
PREHEAT COIL VALVE	1	2-STEAM CONTROL VALVE		X			OPEN		
TEMP DOWNSTREAM OF PREHEAT	1	DUCT TEMP SENSOR	X						
STEAM HUMIDIFIER	1	2-WAY STEAM CONTROL VALVE		X			CLOSE		
COOLING COIL	1	2-WAY CONTROL VALVE		X			CLOSE		
FREEZESTAT	1				X			FREEZE	
FAN STATUS	1	CURRENT SENSOR			X			FLOW LOSS	
VFD ENABLE	1	VFD				X			
VFD SPEED	1	VFD		X			LAST		
VFD AMPS	1	VFD	X						
VFD FAULT	1	VFD			X			FAULT	
SUPPLY AIR DISCHARGE TEMP	1	DUCT TEMP SENSOR	X					HI & LO	
SUPPLY DUCT HIGH STATIC SHUTDOWN	1	HI LIMIT			X			HI	
SUPPLY DUCT STATIC PRESSURE	1	PRESSURE SENSOR	X					HI & LO	
SUPPLY DUCT SMOKE	1	DUCT SMOKE DETECTOR			X			SMOKE	FURN. BY DIV 26.
SUPPLY DUCT RH	1	DUCT RELATIVE HUMIDITY SENSOR	X					HI	

POINT NAME	QTY	DEVICE	AI	AO	DI	DO	FAIL POSITION	ALARM	NOTE
EXHAUST FAN SYSTEM EF-R6	**QTY**								
VFD ENABLE	1	VFD				X			
VFD SPEED	1	VFD		X			LAST		
VFD AMPS	1	VFD	X						
VFD FAULT	1	VFD			X			FAULT	
FAN STATUS	1	CURRENT SENSOR			X			FLOW LOSS	
TEMP DOWNSTREAM OF HEAT RECOVERY	1	DUCT TEMP SENSOR	X						
RUN AROUND COIL LOOP									
PUMP ENABLE	1	VFD				X			SET VFD HZ DURING TAB
PUMP STATUS	1	CURRENT SENSOR			X				
GWS	1	TEMP SENSOR	X						
GWR	1	TEMP SENSOR	X						
3-WAY VALVE- PREVENT COIL ICING	1	3-WAY VALVE		X					
LOOP PRESSURE	1	PRESSURE SENSOR	X					LO	MONITOR ONLY
EXHAUST AIR - UPSTREAM OF COIL	1	TEMP SENSOR	X						
EXHAUST AIR - DOWNSTREAM OF COIL	1	TEMP SENSOR	X						

STEAM DISTRIBUTION TUBE HUMIDIFIER SCHEDULE

UNIT NO.	MANUFACTURER	MODEL	LOAD, LBS/HR	SOURCE STEAM PRESSURE (PSIG)	CFM	DESIGN CONDITIONS				DUCT CONDITIONS					DISTRIBUTION TUBE SIZE			
						E.A.T. DB	E.A.T. %RH	DESIRED SPACE DB TEMP	DESIRED SPACE %RH	E.A.T. DB	E.A.T. %RH	LAT DB	LAT, %RH	AIR PD (IN.W.C.)	TUBES	LPS CONN. SIZE (NPT)	LPR CONN. SIZE (NPT)	DIMENSIONS (NOTE 1)
H-R6	DRISTEEM	ULTRASORB	94.5	5	5,200	-3	73%	75	25%	54.7	6%	57.0	46%	0.024	3" ON CENTER	1/2"	1/2"	46" X 32"

NOTES
1. EXACT HUMIDIFIER SIZE SHALL BE COORDINATED WITH THE SUBMITTED AHU DIMENSIONS.

SUPPLY AIR TERMINAL SCHEDULE

TAG	SERVES	MFR	MODEL	INLET SIZE	NOMINAL OUTLET SIZE	SUPPLY CFM MAX	SUPPLY CFM MIN	MAX RAD. NC	MAX DISCH. NC	MAX APD AT MAX. COOLING	MBH	GPM	FLUID	MAX WPD	EWT	HW TEMP DROP	EAT	LAT	RUNOUT SIZE
VAV-R6-1	PATIENT	TRANE	VCWF	8"	11" X 10"	220	220	30	26	0.03	9.5	0.5	WATER	1.5	180	38.1	55	95.0	1/2"
VAV-R6-2	PATIENT	TRANE	VCWF	8"	10" X 8"	180	180	30	26	0.03	9.2	0.5	WATER	0.9	180	30.7	55	102.1	1/2"
VAV-R6-3	PATIENT	TRANE	VCWF	8"	10" X 8"	180	180	30	26	0.03	9.2	0.5	WATER	0.9	180	30.7	55	102.1	1/2"
VAV-R6-4	PATIENT	TRANE	VCWF	8"	10" X 8"	235	235	30	26	0.04	10.3	0.6	WATER	0.9	180	34.2	55	95.3	1/2"
VAV-R6-5	PATIENT	TRANE	VCWF	8"	10" X 8"	180	180	30	26	0.03	9.2	0.5	WATER	0.9	180	30.7	55	102.1	1/2"
VAV-R6-6	PATIENT	TRANE	VCWF	8"	10" X 8"	180	180	30	26	0.03	9.2	0.5	WATER	0.9	180	30.7	55	102.1	1/2"
VAV-R6-7	PATIENT	TRANE	VCWF	8"	10" X 8"	180	180	30	26	0.03	9.2	0.5	WATER	0.9	180	30.7	55	102.1	1/2"
VAV-R6-8	PATIENT	TRANE	VCWF	8"	10" X 8"	180	180	30	26	0.03	9.2	0.5	WATER	0.9	180	30.7	55	102.1	1/2"
VAV-R6-9	PATIENT	TRANE	VCWF	8"	11" X 10"	205	205	30	26	0.03	9.3	0.5	WATER	0.7	180	37.1	55	96.7	1/2"
VAV-R6-10	NURSE	TRANE	VCWF	12"	17" X 14"	1,160	1,160	30	27	0.18	36.1	2.1	WATER	2.4	180	34.4	55	83.7	3/4"
VAV-R6-11	EXIST CORRIDOR	TRANE	VCWF	8"	11" X 10"	220	220	30	26	0.03	9.5	0.5	WATER	1.5	180	38.1	55	95.0	1/2"
VAV-R6-12	MED	TRANE	VCWF	6"	10" X 8"	140	140	34	24	0.04	7.1	0.5	WATER	0.7	180	23.8	55	102.1	1/2"
VAV-R6-13	NURSE-CHART	TRANE	VCWF	10"	14" X 12"	525	525	30	24	0.08	21.3	1.5	WATER	6.1	180	28.4	55	92.5	3/4"
VAV-R6-14	CHART-CLEAN	TRANE	VCWF	10"	14" X 12"	805	805	31	26	0.27	34.9	1.4	WATER	0.33	180	34.9	55	95.0	3/4"
VAV-R6-15	DIRECTOR-OFFICE	TRANE	VCWF	8"	11" X 10"	210	210	30	26	0.04	9.4	0.5	WATER	0.65	180	37.4	55	96.1	1/2"

PUMP SCHEDULE

TAG	SYSTEM	MFR.	MODEL	TYPE	PUMPED FLUID	PERFORMANCE			ELECTRICAL			ELECTRICAL COORDINATION		CONTROL MODE
						GPM	HEAD	RPM	BHP	AMPS	VOLTS/PH (60 Hz.)	VFD FURN. BY	DISC. SWITCH FURN BY	
P-1	RUN AROUND LOOP	GRUNDFOS	MAGNA3-65-150-F	CANNED ROTOR	30% PG	50	50	1750	1,301W	5.68	208/1/60	WITH PUMP	DIV 26	AUTO-ADAPT, AUTO LEAD/LAG
P-2	RUN AROUND LOOP	GRUNDFOS	MAGNA3-65-150-F	CANNED ROTOR	30% PG	50	50	1750	1,301W	5.68	208/1/60	WITH PUMP	DIV 26	AUTO-ADAPT, AUTO LEAD/LAG

REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE

TAG	PRICE MODEL	TYPE	NECK SIZE	FACE SIZE	CFM RANGE	MAX TOTAL P.D. (IN.W.C.)	MAX NC LEVEL	BORDER TYPE	BLOW	NOTES
S-1	SMX	SQ. CEILING SUPPLY DIFFUSER	6"DIA	24" X 24"	0-100	0.07"	16	LAY-IN	4-WAY	
S-2	SMX	SQ. CEILING SUPPLY DIFFUSER	8" DIA	24" X 24"	101-220	0.07"	19	LAY-IN	4-WAY	
S-3	SMX	SQ. CEILING SUPPLY DIFFUSER	10" DIA	24" X 24"	221-350	0.07"	22	LAY-IN	4-WAY	
S-4	SMX	SQ. CEILING SUPPLY DIFFUSER	12" DIA	24" X 24"	351-650	0.07"	24	LAY-IN	4-WAY	
E-1	630	ALUM. RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	8" X 8"	8" X 8"	0-170	0.05"	23	LAY-IN	------------------	
E-2	630	ALUM. RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	12" X 12"	12" X 12"	171-350	0.05"	27	LAY-IN	------------------	
E-3	630	ALUM. RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	18" X 18"	18" X 18"	351-555	0.03"	27	LAY-IN	------------------	
E-4	630	ALUM. RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	22" X 22"	22" X 22"	556-1900	0.05"	22	LAY-IN	------------------	

AIR HANDLING UNIT SCHEDULE

GENERAL	UNIT NO.	**AHU-R6**	**EF-R6**
	SERVES	**R6 SUPPLY**	**R6 EXHAUST**
	MANUFACTURER	TRANE SIZE 12	TRANE SIZE 12
	WEIGHT (LBS)	3,900	1,500
ELECTRICAL	VOLTAGE	460-3-60	460-3-60
	VFD'S FURNISHED BY	DIV 23	DIV 23
	DISCONNECT SW. FURN BY	FURN. W/VFD	FURN. W/VFD
	SMOKE DETECTOR (SD)	YES	--------------------------
	SD FURN BY	DIV 26	--------------------------
	SD INSTALLED IN DUCT BY	DIV 23	--------------------------
	SD WIRED TO HVAC CONTROLS BY	DIV 23	--------------------------
	SD WIRED TO FIRE ALARM BY	DIV 26	--------------------------
INTAKE SECTION	FILTER TYPE	2" MERV 8	2" MERV 8
	MIN. AREA, SF	16.67	16.67
	MAX FILTER FACE VELOCITY	348	318
	MODULE PD, in. wc. - MID-LIFE	0.59"	0.58"
	DAMPER	PARALLEL BLADE	--------------------------
RUN AROUND COIL	COIL AREA, SF	12.30	12.30
	COIL FACE VELOCITY, FPM	472	431
	TUBES	0.035" COPPER	
	ENT. AIR, WINTER	-15	74 / 62
	LVG. AIR, DB/WB	23.7	42.1 / 42.0
	TOTAL HEAT MBH	235	265
	MAX AIR PD. in. wc.	0.28"	0.55"
	FLUID	30% PG	30% PG
	EWT, deg-F	43.50	32.00
	LWT, deg-F	32.00	43.53
	GPM	50.0	50.0
	WATER PD, ft-H2O	12.5	16.9
STEAM PREHEAT COIL	TYPE	INTERNAL F&BP	--------------------------
	MIN COIL AREA, SF	9.00	--------------------------
	COIL FACE VELOCITY, FPM	644	--------------------------
	EAT, deg-F.	-15	--------------------------
	LAT, deg-F.	55.0	--------------------------
	TMBTUH	425	--------------------------
	MAX AIR PD. in. wc.	0.23"	--------------------------
	STEAM PRESSURE	5 PSIG	--------------------------
	CONDENSATE, LBS/HR.	410	--------------------------
HUMIDIFIER SECTION	SEE HUMIDIFIER SCHEDULE	SEE SCHEDULE	--------------------------
	TYPE	BUILDING STEAM	--------------------------
CHILLED WATER COIL	MIN COIL AREA, SF	11.81	--------------------------
	COIL DIMENSIONS	54.5"W X 32.5"H	--------------------------
	COIL FACE VELOCITY, FPM	491	--------------------------
	TUBES	0.035" COPPER	
	ENT. AIR, DB/WB	88.0 / 74.0	--------------------------
	LVG. AIR, DB/WB	54.5 / 54.4	--------------------------
	TMBTUH	369.0	--------------------------
	SMBTUH	208.0	--------------------------
	MAX AIR PD. in. wc.	0.83"	--------------------------
	FLUID	30% PG	--------------------------
	EWT, deg-F	45	--------------------------
	LWT, deg-F	59	--------------------------
	GPM	57.0	--------------------------
	WATER PD, ft-H2O	16.7	--------------------------
UV LIGHTS	MANUFACTURER	STERILAIRE	--------------------------
	MODEL	(2) DE-241, (2) DW-301	--------------------------
	ELECTRICAL	115/1/60 - 2.72A	--------------------------
FAN	TYPE	DIRECT DRIVE PLENUM FAN	DIRECT DRIVE PLENUM FAN
	FAN QUANITY	1	1
	CFM STD. AIR	**5,800**	**5,300**
	MIN. OA CFM	5,800	--------------------------
	ESP, in.wc.	2.5"	1.75"
	TSP, in. wc.	4.7"	3.2"
	FAN RPM	2,286	2,049
	MAX-BHP	8.0	4.3
	MOTOR HP	10	5
	MOTOR EFFICIENCY	PREMIUM	PREMIUM
	STARTER OR VFD	VFD	VFD
FINAL FILTERS	FILTER TYPE	12" MERV 15	--------------------------
	MIN. AREA, SF	12.33	--------------------------
	MAX FILTER FACE VELOCITY	470	--------------------------
	MODULE PD, in. wc. - MID-LIFE	0.75"	--------------------------

NOTES:
1. AHU'S ARE OVERSIZED FOR FUTURE, SEE VAV BOX SCHEDULE FOR DESIGN AIRFLOWS

AIR CONTROL SCHEDULE

SECONDARY SYSTEM	AHU- RUN AROUND
AIR SEPARATOR	
MFR-MODEL	AMTROL
INLET/OUTLET	2-1/2"
BLADDER-TYPE EXPANSION TANK	
MFR-MODEL	AMTROL AX-___
CONFIGURATION	HORIZONTAL
SYSTEM HEIGHT, FT	
STATIC PRESSURE AT TANK, PSI.	0.0
PSI REQ'D. AT HIGHEST TERM UNIT	5
TANK PRE-CHARGE PRESSURE	5.0
TANK DIAMETER	
TANK LENGTH	
ACCEPTANCE VOLUME	
ASME PRESSURE RATING	125

A1 | MECHANINCAL ~ SCHEDULES
NONE

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REVISIONS

NUMBER	DATE	BY	DESCRIPTION

Date:
Drawn By: SCL
Checked By: IAM
Project Mgr:
Project No:
Cad File: 14014_M.DWG
Graphic Scale: 0 1"

MECHANICAL SCHEDULES AND NOTES

R6 Intermediate Care Unit
Richards Wing Sixth Floor
PORTLAND MAINE

MH-600

PERMIT SET ~ 03 APRIL 2015 - NOT FOR CONSTRUCTION