PACKAGED DX ROOFTOP AIR HANDLING UNIT SCHEDULE WITH ELECTRIC HEATING

ITEM	MANUFACTURER	MODEL	MINIMUM O.A. CFM	SUPPLY FAN DATA: TOTAL CFM	WHEEL DIA./PL	MOTOR RPM	MOTOR HP	TOTAL E.S.P. IN. W.G.	DX COOLING COIL DATA: ENT TEMP DB	ENT TEMP WB	LVG TEMP DB	LVG TEMP WB	SENS MBH	TOT MBH	HEATING COIL DATA: AIR DATA EDB	AIR DATA LDB	AIR DATA F.A.	ELECTRIC DATA: KW	ELECTRIC DATA: STAGES	TOTAL UNIT WEIGHT	REMARKS
RTU	TRANE	TCD036	1,200	60	-	-	5.5	0.89	80	67	55.2	56	25.1	37.4	45	97	5,000	17.0	3	1	906	SEE NOTES BELOW

NOTES: 1. 460/60/3 SINGLE POINT CONNECTION.
2. ECONOMIZER, REFERENCE DETHALPY WITH BAROMETRIC RELIEF
3. EPOXY COATED CONDENSER COIL WITH HAIL GUARD
4. LOW AMBIENT CONTROLS
5. CIRCUIT BREAKER

EXPANSION JOINT SCHEDULE

ITEM	QTY.	SERVICE	LOCATION	MANUFACTURER	MODEL	MOVEMENT: AXIAL	MOVEMENT: LATERAL	SIZE: DIA.	SIZE: LENGTH	FLUID TEMP.	MAX PRESSURE	SPRING RATE	NOTES
EJ-1	1	12" HPS	SUB-BASEMENT TUNNEL	HYATRAM	3599-1804	HT=2"	NEG.	12"	42-7/8"	338°	500 PSIG	2628	NOTE 1,2,3
EJ-2	1	4" PD	SUB-BASEMENT TUNNEL	HYATRAM	3599-1404	HT=2"	NEG.	4"	48"	208°	150 PSIG	185	NOTE 1,2,3
EJ-3	1	12" HPS	SUB-BASEMENT TUNNEL	HYATRAM	3599-1804	HT=2"	NEG.	12"	42-7/8"	338°	500 PSIG	2628	NOTE 1,2,3
EJ-4	1	4" PD	SUB-BASEMENT TUNNEL	HYATRAM	3599-1404	HT=2"	NEG.	4"	48"	208°	150 PSIG	185	NOTE 1,2,3
EJ-5	1	12" HPS	SUB-BASEMENT TUNNEL	HYATRAM	3599-1804	HT=2"	NEG.	12"	42-7/8"	338°	500 PSIG	2628	NOTE 1,2,3
EJ-6	1	4" PD	SUB-BASEMENT TUNNEL	HYATRAM	3599-1404	HT=2"	NEG.	4"	48"	208°	150 PSIG	185	NOTE 1,2,3

NOTES: 1. DUAL ANCHOR SEATS, WELDED END, EXTERNALLY PRESSURIZED, GUIDED EXPANSION JOINTS.
2. PROVIDE ALL APPROPRIATELY SPACED ANCHORS AND GUIDES PER MFR'S RECOMMENDATIONS. REFER TO PLANS FOR LAYOUT.
3. PROVIDE EXPANSION JOINT FLOOR SUPPORT PER MFR'S RECOMMENDATIONS.

FAN SCHEDULE

ITEM	MANUFACTURER	MODEL	TYPE	SERVES	LOCATION	CFM	S.P. IN. W.G.	FAN RPM	MOTOR DATA: HP	V	PH	RPM	DRIVE TYPE	Lw/A	REMARKS
EF-1	CENTRAL AIRE	PTEAS	PROPELLER	ELECTRIC VAULT	SUB LEVEL 1	2000	0.25	1148	1/6	115	1	1140	DIRECT		2
EF-2	COOK	135PTS	PROPELLER	ELEC./C.O.DEPT	BASEMENT LEVEL	500	0.2	-	0.125	115	1	1725	DIRECT	71	3
EF-3	COOK	135PTS	PROPELLER	ELEC./C.O.DEPT	SUB-LEVEL 1	500	0.2	-	0.125	115	1	1725	DIRECT	71	3
EF-4	COOK	135PTS	PROPELLER	ELEC./C.O.DEPT	SUB LEVEL 1	500	0.2	-	0.125	115	1	1725	DIRECT	71	3
EF-5	COOK	300LP	PROPELLER	HELIPORT MECH. RM.	HELIPORT MECH. RM.	1000	0.2	-	0.25	115	1	1725	DIRECT	76	3

NOTES: NOTES:
1. FAN SHUT DOWN WITH DUCT MOUNTED SMOKE DETECTOR.
2. WALL MOUNTED DIRECT DRIVE, STEEL PROPELLER WITH INTEGRAL HOUSING, AUTOMATIC CONTROL DAMPER, INLET GUARD AND VARIABLE SPEED CONTROLLER.

GRILLES, REGISTERS AND DIFFUSER SCHEDULE

ITEM	MANUFACTURER	MODEL	NECK SIZE: RECT.	NECK SIZE: ROUND	NECK SIZE: NECK SIZE	CFM: RANGE	S.P. IN. W.G.	FAN RPM	MOUNTING	NC LEVEL	TOTAL PRESS. IN. W.G.	REMARKS
SA-1	TITUS	350L	10"x6"			90-180	<0.10		FLUSH	<30		
SA-2	TITUS	350L	12"x6"			135-270	<0.10		FLUSH	<30		
SA-3	TITUS	350L	12"x10"			225-450	<0.10		FLUSH	<30		
SA-4	TITUS	350L	12"x10"			405-810	<0.10		FLUSH	<30		
SA-5	TITUS	350L	18"x18"			705-800	<0.10		FLUSH	<30		
SA-6	TITUS	350L	24"x24"			950-1,200	<0.10		FLUSH	<30		
SA-7	AAP	600	36"x36"			1000	0.07		FLUSH	21	0.030	1
EA-1	TITUS	350L	6"x6"			60-90	<0.10		FLUSH	<30		
EA-2	TITUS	350L	8"x8"			90-135	<0.10		FLUSH	<30		
EA-3	TITUS	350L	10"x10"			135-225	<0.10		FLUSH	<30		
EA-4	TITUS	350L	12"x10"			225-405	<0.10		FLUSH	<30		
EA-5	TITUS	350L	18"x10"			405-600	<0.10		FLUSH	<30		
EA-6	TITUS	350L	18"x18"			600-800	<0.10		FLUSH	<30		
EA-7	TITUS	350L	24"x24"			705-800	<0.10		FLUSH	<30		
EA-8	TITUS	350L	24"x24"			950-1,200	<0.10		FLUSH	<30		
EA-9	TITUS	350L	36"x36"			1400	<0.10		FLUSH	<30		

NOTE: 1. PROVIDE WITH OUT HOUSE TUTED DAMPER/VOLUME DAMPER ASSEMBLY. PVC/24

RADIANT PANEL SCHEDULE

ITEM	MANUFACTURER	MODEL	PANEL DIMENSION: BTUH/LF	PANEL DIMENSION: LENGTH (FT.)	PANEL DIMENSION: WIDTH (IN.)	WATER DATA: ENT.	WATER DATA: LVG.	WATER DATA: GPM/LF	WATER DATA: P.D.(FT.)	REMARKS
RP-1	AMTEX	HEF-4 TUBE	203	SEE PLAN	18"	180	160	0.251		
RP-2	AMTEX	HEF-4 TUBE	203	SEE PLAN	12"	180	160	0.251		

NOTES
1. MINIMUM ACTIVE LENGTH SCHEDULED. PROVIDE WALL TO WALL PANEL LENGTH.
2. SEE PIPING PLANS FOR PANEL LENGTH AND GPM.
3. DESIGN FLOW RATES PER RUN, RECOMMENDED TO BE GREATER THAN 0.5 GPM.

STEAM UNIT HEATER SCHEDULE

ITEM	MANUFACTURER	MODEL	SIZE	LOCATION	CFM	STEAM: PRESS PSIG	STEAM: MBH	STEAM: LBS/HR	MOTOR DATA: WATTS	V	PH	RPM	REMARKS
SUH-1	ABTHERM	UN	4189	MECH RM	320	5	129	99	0	115	1	1725	

TERMINAL BOX SCHEDULE

ITEM	MANUFACTURER	MODEL	SIZE	TYPE	CFM: MIN	CFM: MAX	PRESS. DIFF.	AIR DATA: ENT	AIR DATA: LAT	HOT WATER HEATING COIL DATA: ENT	HOT WATER HEATING COIL DATA: LVG	HOT WATER HEATING COIL DATA: GPM	HOT WATER HEATING COIL DATA: MBH	HOT WATER HEATING COIL DATA: ROWS	SPACE: P.D.(FT.)	SPACE: NC.	LOCATED	REMARKS
TB-SA-1	ENVIROTECH	SDP4-04-HC	16	CV	1000	2,000	0.25	55	55	180	160	4.2	-	2			SUB LEVEL 4	
TB-SA-2	ENVIROTECH	SDP4-04-HC	8	CV	375	750	0.21	55	55	180	160	1.3	-	2			BSMT	
TB-SA-3	ENVIROTECH	SDP4-04-HC	6	CV	375	570	0.21	55	55	180	160	1.3	-	2			BSMT	
TB-SA-4	ENVIROTECH	SDP4-04-HC	8	CV	720	1200	0.21	55	55	180	160	2.5	-	2			BSMT	
TB-SA-5	ENVIROTECH	SDP4-04-HC	4	CV	108	180	0.25	55	55	180	160	0.4	-	2			BSMT	
TB-SA-6	ENVIROTECH	SDP4-04-HC	8	CV	600	990	0.25	55	55	180	160	3.5	-	2			GROUND	
TB-SA-7	ENVIROTECH	SDP4-04-HC	8	CV	300	500	0.25	55	55	180	160	1.3	-	2			GROUND	
TB-SA-8	ENVIROTECH	SDP4-04-HC	10	CV	1140	1140	0.25	55	55	180	160	3.8	-	2			GROUND	
TB-SA-9	ENVIROTECH	SDP4-04-HC	8	CV	525	1500	0.25	55	55	180	160	4.7	-	2			GROUND	
TB-SA-10	ENVIROTECH	SDP4-24-HC	10	CV	1080	1080	0.25	55	55	180	160	3.7	-	2			GROUND	
TB-SA-11	ENVIROTECH	SDP4-24	14	CV	1600	1600	0.25	-	-	-	-	-	-	-			BSMT	

ELECTRIC UNIT HEATER SCHEDULE

ITEM	MANUFACTURER	MODEL	KW	BTUH	CFM	MOTOR DATA: HP	V	PH	RPM	REMARKS
EUH-1	BRADY	S-2011	3	10,234	315	1/50	460	3	1750	
EUH-2	BRADY	S-4803	5	17,060	315	1/50	460	3	1750	
EUH-3	QMARK	ECH-745	7.2	24,600	215	1/4	460	3	1400	SERVES ELECTRIC VAULT
EUH-4	QMARK	ECH-745	7.2	24,600	215	1/4	460	3	1400	SERVES ELECTRIC VAULT
EUH-5	MARS	E8AAE	6.4	21,805	800	-	208	1	-	SERVES EIGHT CORE/STEELE
EUH-6	QMARK	COF-089	3	17	-	-	208	1	-	SERVES BRIDGE
EUH-7	QMARK	COF-089	3	17	-	-	208	1	-	SERVES BRIDGE

CONDENSATE PUMP SCHEDULE

ITEM	MANUFACTURER	MODEL	UNIT	GPM	TYPE: DISCHARGE PRESSURE	TYPE: RECEIVE	CAP. GAL.	ELECTRICAL DATA: VOLTS	PH	HZ	REMARKS
CP-1	BELL & GOSSETT	3SC2	DUPLEX	5	60	14	400	3	60	(2) 2 HP MOTORS	
CP-2	SPIRAX SARCO	VCS-4	DUPLEX	1.5	60	15	400	3	60	(2) 2 HP MOTORS	

PRESSURE REDUCING VALVE SCHEDULE

ITEM	MANUFACTURER	MODEL	SIZE	STEAM PRESSURE: INLET	STEAM PRESSURE: OUTLET	CAPACITY: LBS/HR	BYPASS VALVE	PIPE SIZES: D1	PIPE SIZES: D2	REMARKS
PRV-1	SPIRAX	ED	1-4-3	80	40	1,800	Y GLOBE	2	3	NOTE 1
PRV-2	SPIRAX	ED (F)	2	40	10	1,800	3-12 GLOBE	3	4	NOTE 1

NOTES: 1. PROVIDE MUFFLING CONES (SUPPLIED BY MFR.) AT PRV

HOT WATER UNIT HEATER SCHEDULE

ITEM	MANUFACTURER	MODEL	LOCATION	CFM	MOTOR DATA: ENT	LVT	MBH	GPM	HP	V	PH	RPM	REMARKS
UH-1	MARS	STANDARD W/AIR DOOR	BSMT COOL VEST.	2080	180	160	55	5.5	1/2	208	1	1750	5-6
UH-2	STERLING	HS-115A	GROUND CORE	420	180	160	15.7	1.2	3/4WTT	115	1	1300	7

WATER FLOW STATION SCHEDULE

ITEM	MANUFACTURER	MODEL	MAX GPM	MIN GPM	SIZE	SYSTEM SERVED	REMARKS
WFS-1	PRESCO	WF-12	2080	560	12"x8	CHARLES ST CHWS	

NOTES

1. LOW-LOSS DESIGN WITH FLANGED ENDS.
2. STAINLESS STEEL LINER.
3. PROVIDE VENTURI WITH SQUARE ROOT EXTRACTOR CONNECTED TO BUILDING MANAGEMENT SYSTEM DDC SYSTEM (SEE DRAWINGS AND SPECIFICATIONS FOR MORE INFORMATION).
4. ANSI B16.5, CLASS 150, 300

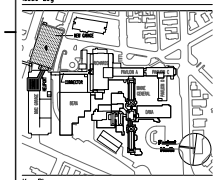
RELIEF VENT SCHEDULE

ITEM	MANUFACTURER	MODEL	CAPACITY: LBS/HR	VALVE SIZE: IN. x OUTLET	ORIFICE AREA	LOCATION	SERVES
SRV-1	SPIRAX	31	1000	2 X 3	J (.307)	BSMT/SUB-BSMT	PRV-1
SRV-2	SPIRAX	31	300	1 X 1	D (.2116)	BSMT/SUB-BSMT	PT-1

General Notes:

MARK	ISSUE DATE	DESCRIPTION
PERMIT	09/16/04	PERMIT SET
BID	09/28/04	BID SET

Issue Log



Key Plan

TRO
ARCHITECTURE
PLANNING
ENGINEERING
INTERIOR DESIGN
The Ritchie Organization
48 Ritchie Road
Holden, MA 01520-1104
617-850-0400

Maine Medical Center
Pkg F - Garage / Vault / Conn / Heliport
Portland, ME MMC Project No. 21845

Drawing Title
HVAC SCHEDULES

Commission No.	4678	Date Issued	09/28/04
Scale	NTS	Sheet Number	PKG-F
Drawn By	FMC		
Approved By	CM/TM		H700
Filename	4678H700		

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