HEAT/ENERGY RECOVERY VENTILATION UNIT SCHEDULE

MARK		MAKE	MODEL	RECOVERY CORE WINTER PERFORMANCE: MIN. SENSIBLE EFFICIENCY (%)	MIN. LATENT EFFICIENCY (%)	ENT AIR TEMP F	ENT AIR TEMP C	LVG AIR TEMP F	LVG AIR TEMP C	MAX. CORE VELOCITY FPM	MAX. CORE VELOCITY M/S	AIRFLOW CFM	AIRFLOW L/S	SUPPLY FAN ESP DESIGN INCH W.C.	SUPPLY FAN ESP DESIGN PA	SUPPLY FAN ESP MAX BALANCED INCH W.C.	SUPPLY FAN ESP MAX BALANCED PA	SUPPLY FAN POWER HP	SUPPLY FAN POWER KW	EXHAUST FAN AIRFLOW CFM	EXHAUST FAN AIRFLOW L/S	EXHAUST FAN ESP DESIGN INCH W.C.	EXHAUST FAN ESP DESIGN PA	EXHAUST FAN ESP MAX BALANCED INCH W.C.	EXHAUST FAN ESP MAX BALANCED PA	EXHAUST FAN POWER HP	EXHAUST FAN POWER KW	FILTERS	DEFROST	MAX DIMENSIONS MM HEIGHT	MAX DIMENSIONS MM LENGTH	MAX DIMENSIONS MM WIDTH	MAX WEIGHT LBS	MAX WEIGHT KG	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	NOTES
ERV	1	TEMPEFF	RGSP 1800	85	70	-40	-40	54	12	480	2.44	1600	755	1	249	0.92	229	2.5	1.86	1600	755	1	249	0.88	219	2.5	1.86	50 MM (2 INCH) MERV 8 ON OUTDOOR INTAKE ONLY	REVERSING CORE	2099	851	1511	1283	582	208 V	3	1
ERV	2	TEMPEFF	RGSP 1200	85	70	-40	-40	54	12	490	2.49	950	448	0.5	124	0.25	62	2.4	1.79	950	448	0.5	124	0.23	57	2.4	1.79	50 MM (2 INCH) MERV 8 ON OUTDOOR INTAKE ONLY	REVERSING CORE	2000	651	1368	1128	512	208 V	3	1, 2

NOTES:
1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. TOTAL EXHAUST AIRFLOW IS LESS THAN SUPPLY AIRFLOW TO NEGATIVELY PRESSURIZE APPARATUS BAYS AND HOSE WASH SPACES.

MAKE UP AIR UNIT SCHEDULE

MARK		MAKE	MODEL	ZONE SERVED	SUPPLY AIRFLOW CFM	SUPPLY AIRFLOW L/S	SUPPLY FAN E.S.P. INCH W.C.	SUPPLY FAN E.S.P. PA	SUPPLY FAN POWER HP	HEAT OUTPUT (GAS) BTUH	HEAT OUTPUT (GAS) KW	TEMPERATURE RISE F	TEMPERATURE RISE C	FILTERS	MAXIMUM WEIGHT LBS	MAXIMUM WEIGHT KG	MAXIMUM DIMENSIONS LENGTH	MAXIMUM DIMENSIONS WIDTH	MAXIMUM DIMENSIONS HEIGHT	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	NOTES
MUA	1	ENGINEERED AIR	FW42/HE20/O	KITCHEN	1000	472	0.50	124	1.50	1.12	129000	38	110	61	50MM (2 INCH) MERV 8	2200	998	4496	1346	1067	208 V	3	1, 3
MUA	2	ENGINEERED AIR	HE70/C/O	APPARATUS BAY	4000	1888	0.50	124	5.00	3.73	519000	152	110	61	50MM (2 INCH) MERV 8	2200	998	3277	1321	1016	208 V	3	2, 3

NOTES:
1. ROOFTOP PACKAGED MAKEUP AIR UNIT. PROVIDE WITH PACKAGED DX COOLING (4 TONS, 87F EAT, 72F LAT, MIN EER 11), DIRECT FIRED GAS HEAT, AND BOTTOM SUPPLY AIR CONNECTION.
2. INDOOR MAKEUP AIR UNIT. PROVIDE WITH SPLIT DX COOLING, GAS HEAT, AND TOP SUPPLY AIR CONNECTION. SEE CONDENSING UNIT SCHEDULE.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

CONDENSING UNIT SCHEDULE

MARK		MAKE	MODEL	ZONE SERVED	COOLING CAPACITY BTUH	COOLING CAPACITY KW	COOLING CAPACITY TONS	EER	COMPRESSOR TYPE	COMPRESSOR QTY	COMPRESSOR STAGES	REFRIGERANT TYPE	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	DIMENSIONS MM HEIGHT	DIMENSIONS MM LENGTH	DIMENSIONS MM WIDTH	DESIGN WEIGHT LBS	DESIGN WEIGHT KG	NOTES
CU	1	ENGINEERED AIR	CU93	MUA-2	126000	37	10.5	11	SCROLL	3	3	R-410A	575 V	3	1143	2007	1041	1150	522	

NOTES:
1. PROVIDE WITH MUA-2. PROVIDE PACKAGED CONTROLS WITH MUA-2.

HEAT PUMP SCHEDULE - WATER TO AIR

MARK		MAKE	MODEL	ROOMS SERVED	SUPPLY FAN SUPPLY AIRFLOW CFM	SUPPLY FAN SUPPLY AIRFLOW L/S	SUPPLY FAN SUPPLY FAN E.S.P. INCH W.C.	SUPPLY FAN SUPPLY FAN E.S.P. PA	OUTDOOR AIR CFM	OUTDOOR AIR L/S	MIN HEATING CAPACITY BTUH	MIN HEATING CAPACITY KW	COOLING CAPACITY TOTAL BTUH	COOLING CAPACITY TOTAL KW	COOLING CAPACITY TOTAL TONS	FILTERS	HEATING FLUID TEMPS EWT	HEATING FLUID TEMPS LWT	COOLING FLUID TEMPS EWT	COOLING FLUID TEMPS LWT	FLUID FLOW GPM	FLUID FLOW L/S	PRESSURE DROP FEET W.C.	PRESSURE DROP KPA	FLUID TYPE	MAX WEIGHT LBS	MAX WEIGHT KG	MAX DIMENSIONS HEIGHT	MAX DIMENSIONS LENGTH	MAX DIMENSIONS WIDTH	VOLTAGE	PHASE	NOTES
HP	1	FHP	LV060	TRAINING	2000	944	0.40	100	325	153	30200	9	50400	15	4.2	MERV 8	30 °F	26 °F	85 °F	95 °F	15.0	0.9	20.4	61	35% GLYCOL	288	131	533	1384	635	208 V	1	1
HP	2	FHP	LV009	FLOOR WATCH, LOBBY	315	149	0.40	100	125	59	4800	1	6900	2	0.6	MERV 8	30 °F	26 °F	85 °F	95 °F	2.5	0.2	10.7	32	35% GLYCOL	132	60	533	1384	635	208 V	1	1
HP	3	FHP	LV024	IT ROOM	850	401	0.40	100	0	0	2500	1	24000	7	2.0	MERV 8	30 °F	26 °F	85 °F	95 °F	6.0	0.4	24.6	74	35% GLYCOL	181	82	457	1092	559	208 V	1	1
HP	4	FHP	LV007	CAPT & LEUT, SLEEP QTRS	300	142	0.40	100	50	24	3900	1	3400	1	0.3	MERV 8	30 °F	26 °F	85 °F	95 °F	2.0	0.1	4.8	14	35% GLYCOL	128	58	292	838	483	208 V	1	1
HP	5	FHP	LV007	INVST OFFICE, SLEEP QTRS, CORRIDOR	300	142	0.40	100	100	47	3900	1	5800	2	0.5	MERV 8	30 °F	26 °F	85 °F	95 °F	2.0	0.1	4.8	14	35% GLYCOL	128	58	292	838	483	208 V	1	1
HP	6A	FHP	LV018	FITNESS	600	283	0.40	100	85	40	11100	3	10400	3	0.9	MERV 8	30 °F	26 °F	85 °F	95 °F	5.0	0.3	16.9	51	35% GLYCOL	174	79	457	1092	559	208 V	1	1
HP	6B	FHP	LV024	FITNESS	800	378	0.40	100	115	54	14800	4	13900	4	1.2	MERV 8	30 °F	26 °F	85 °F	95 °F	6.0	0.4	24.6	74	35% GLYCOL	181	82	457	1092	559	208 V	1	1
HP	7A	FHP	LV024	KITCHEN	800	378	0.40	100	185	87	14800	4	17000	5	1.4	MERV 8	30 °F	26 °F	85 °F	95 °F	6.0	0.4	24.6	74	35% GLYCOL	181	82	457	1092	559	208 V	1	1
HP	7B	FHP	LV018	KITCHEN	600	283	0.40	100	140	66	11100	3	12800	4	1.1	MERV 8	30 °F	26 °F	85 °F	95 °F	5.0	0.3	16.9	51	35% GLYCOL	174	79	457	1092	559	208 V	1	1
HP	8A	FHP	LV018	DAY ROOM	600	283	0.40	100	63	30	11500	3	7300	2	0.6	MERV 8	30 °F	26 °F	85 °F	95 °F	5.0	0.3	16.9	51	35% GLYCOL	174	79	457	1092	559	208 V	1	1
HP	8B	FHP	LV018	DAY ROOM	600	283	0.40	100	63	30	11500	3	7300	2	0.6	MERV 8	30 °F	26 °F	85 °F	95 °F	5.0	0.3	16.9	51	35% GLYCOL	174	79	457	1092	559	208 V	1	1
HP	9	FHP	LV007	SLEEP QTRS	300	142	0.40	100	60	28	3900	1	3500	1	0.3	MERV 8	30 °F	26 °F	85 °F	95 °F	2.0	0.1	4.8	14	35% GLYCOL	128	58	292	838	483	208 V	1	1
HP	10	FHP	LV007	SLEEP QTRS	300	142	0.40	100	80	38	3900	1	4000	1	0.3	MERV 8	30 °F	26 °F	85 °F	95 °F	2.0	0.1	4.8	14	35% GLYCOL	128	58	292	838	483	208 V	1	1
HP	11	FHP	LV007	SLEEP QTRS	300	142	0.40	100	110	52	3900	1	5200	2	0.4	MERV 8	30 °F	26 °F	85 °F	95 °F	2.0	0.1	4.8	14	35% GLYCOL	128	58	292	838	483	208 V	1	1
HP	12	FHP	LV015-1HZ*-FRE	OFFICE/STUDY	500	236	0.40	100	25	12	9800	3	11700	3	1.0	MERV 8	30 °F	26 °F	85 °F	95 °F	3.3	0.2	19	57	35% GLYCOL	136	62	432	1092	559	208 V	1	1
HP	13	FHP	EC181	APPARATUS BAYS	6000	2832	0.40	100	0	0	121100	35	132400	39	11.0	MERV 8	30 °F	26 °F	85 °F	95 °F	42.0	2.6	23	69	35% GLYCOL	1090	494	1778	1334	813	208 V	3	1

NOTES:
1. PROVIDE HEAT PUMP WITH MINIMUM EFFICIENCIES AS FOLLOWS, ACCORDING TO NRC REGULATIONS, TESTED TO CAN/CSA-C13256-1:
   - HEATING: 3.1 COP (AT 0C ENTERING WATER TEMPERATURE)
   - COOLING: 3.93 COP (AT 25C ENTERING WATER TEMPERATURE)

BOILER SCHEDULE

MARK		MAKE	MODEL	TYPE	WORKING FLUID	INPUT CAPACITY BTUH	INPUT CAPACITY KW	OUTPUT CAPACITY BTUH	OUTPUT CAPACITY KW	DESIGN FLOW GPM	DESIGN FLOW L/S	MIN FLOW GPM	MIN FLOW L/S	EWT F	EWT C	LWT F	LWT C	PRESSURE DROP FEET W.C.	PRESSURE DROP KPA	MAX OPERATING PRESSURE FEET W.C.	MAX OPERATING PRESSURE KPA	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	DESIGN WEIGHT LBS	DESIGN WEIGHT KG	MAXIMUM DIMENSIONS (WxDxH) MM MM	MAXIMUM DIMENSIONS (WxDxH) INCH	NOTES
B	1	TRIANGLE TUBE	SOLO 399	NATURAL GAS	35% PROP GLYCOL	399,000	117	330,000	97	29	1.83	19	1.2	140	60	160	71	2	6	57	170.4	115 V	1	250	113	7315x7315x12192	24x24x40	

HEAT PUMP SCHEDULE - WATER TO WATER

MARK		MAKE	MODEL	SERVES	COP	LOAD LOOP - HEATING WATER FLOW GPM	LOAD LOOP - HEATING LWT - HOT °F	LOAD LOOP - HEATING LWT - HOT °C	LOAD LOOP - HEATING LOAD BTUH	LOAD LOOP - HEATING LOAD KW	GROUND LOOP - HEATING WATER FLOW GPM	GROUND LOOP - HEATING EWT °F	GROUND LOOP - HEATING EWT °C	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	MAX WEIGHT LBS	MAX WEIGHT KG	NOTES
WSHP	1	Bosch FHP	WW120-3USC	HCC-1 & DHW PREHEAT	3.5	23	99	37	101808	29.8	28	30	-1	208 V	3	648	294	

PUMP SCHEDULE

MARK		SERVES	PUMP TYPE	INLET DIAMETER INCH	INLET DIAMETER MM	OUTLET DIAMETER INCH	OUTLET DIAMETER MM	FLOW GPM	FLOW L/S	HEAD FEET WATER	HEAD KPA	ELECTRICAL HP	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	DESIGN WEIGHT LBS	DESIGN WEIGHT KG KG	MAX DIMENSIONS (WxDxH) MM	MAX DIMENSIONS (WxDxH) INCH	NOTES
P	1A	MAIN HEAT PUMP LOOP	CLOSE COUPLED IN-LINE CENTRIFUGAL, SENSORLESS VARIABLE SPEED, PUMP MOUNTED VFD	3"	76	3"	76	150	9.46	80	239	7.5	575 V	3	280	127	546x356x764	22x14x30	
P	1B	MAIN HEAT PUMP LOOP	CLOSE COUPLED IN-LINE CENTRIFUGAL, SENSORLESS VARIABLE SPEED, PUMP MOUNTED VFD	3"	76	3"	76	150	9.46	80	239	7.5	575 V	3	280	127	546x356x764	22x14x30	
P	2	BOILER PUMP	INLINE CIRCULATOR	1 1/2"	38	1 1/2"	38	36	2.27	16	48	0.5	208 V	1	31	14	292x242x377	12x10x15	
P	3A	WEEPING TILE SUMP	SUBMERSIBLE EFFLUENT	0"	0	1 1/2"	38	30	1.89	20	60	0.33	120 V	1	36	16	225x225x275	9x9x11	1
P	3B	WEEPING TILE SUMP	SUBMERSIBLE EFFLUENT	0"	0	1 1/2"	38	30	1.89	20	60	0.33	120 V	1	36	16	225x225x275	9x9x11	1
P	4	DOMESTIC HOT WATER RECIRC	INLINE CIRCULATOR	3/4"	19	3/4"	19	6	0.38	24	72	0.12	120 V	1	13	6	124x129x156	5x5x6	
P	5	DOMESTIC HOT WATER GEN	INLINE CIRCULATOR	1"	25	1"	25	15	0.95	36	108	0.4	120 V	1	13	6	175x125x250	7x5x10	

NOTES:
1. PROVIDE WITH 30 INCH DIA x 48 INCH DEEP PREFABRICATED FIBERGLASS PIT WITH STEEL COVER AND DUPLEX CONTROLLER ACCORDING TO SPECIFICATIONS. REFER TO PIT DETAIL.

DUCT-MOUNTED ELECTRIC HEATER SCHEDULE

MARK		TYPE	ZONE SERVED	DUCT SIZE CONNECTIONS WIDTH/DIA INCH	DUCT SIZE CONNECTIONS WIDTH/DIA MM	DUCT SIZE CONNECTIONS HEIGHT INCH	DUCT SIZE CONNECTIONS HEIGHT MM	HEAT INPUT W	AIR FLOW CFM	AIR FLOW L/S	AIRFLOW VELOCITY FPM	AIRFLOW VELOCITY M/S	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	CONTROL	NOTES
DH	1	OPEN COIL	HP-4	8	203	0	0	1000	300	142	860	4.4	208 V	1	ON/OFF	1
DH	2	OPEN COIL	HP-5	10	254	0	0	1500	300	142	540	2.7	208 V	1	ON/OFF	1
DH	3	OPEN COIL	HP-6A	12	305	0	0	1500	600	283	760	3.9	208 V	1	ON/OFF	1
DH	4	OPEN COIL	HP-6B	12	305	0	0	1500	800	378	1020	5.2	208 V	1	ON/OFF	1
DH	5	OPEN COIL	HP-7A	14	356	0	0	2000	800	378	750	3.8	208 V	1	ON/OFF	1
DH	6	OPEN COIL	ERV-2	16	406	16	406	6000	900	425	530	2.7	208 V	1	SCR	1
DH	7	OPEN COIL	HP-9	10	254	0	0	2000	300	142	550	2.8	208 V	1	ON/OFF	1
DH	8	OPEN COIL	HP-10	10	254	0	0	2500	300	142	550	2.8	208 V	1	ON/OFF	1
DH	9	OPEN COIL	HP-11	10	254	0	0	2500	300	142	550	2.8	208 V	1	ON/OFF	1
DH	10	OPEN COIL	HP-12	12	305	0	0	2500	500	236	640	3.2	208 V	1	ON/OFF	1
DH	11	OPEN COIL	SOFFIT	8	203	0	0	3000	150	71	400	2.0	208 V	1	SRC	1

NOTES:
1. MAXIMUM ALLOWABLE AIR PRESSURE DROP: 0.06 INCH W.C.

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Member
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REGISTERED PROFESSIONAL ENGINEER

Project
WFPS STATION 9
1083 AUTUMNWOOD DRIVE

Sheet Title
MECHANICAL SCHEDULES

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