

HEAT PUMP SPLIT SYSTEM AIR HANDLING UNIT SCHEDULE

ITEM#	AREA SERVED	FAN DATA					COOLING DATA			AUXILIARY ELEC. HEATING DATA				HEAT PUMP HEATING DATA				MANUAL SHUTDOWN PER NFPA 90A (YES/NO)	INDOOR UNIT			OUTDOOR UNIT (HEAT PUMP)					
		C.F.M.	E.S.P.	H.P.	R.P.M.	C.F.M. O.A.	TYPE	TOTAL BTU/HR	SENS. BTU/HR	EER	KW	BTU/HR	STEPS	VOLT/PHASE	HI-TEMP HEAT @ O.A.T. BTU/H	LOW-TEMP HEAT @ O.A.T. C.O.P.	BTU/H		C.O.P.	MFGR.	MODEL NO	WEIGHT	ELEC. DATA	MANUFACTURER	MODEL NO	WEIGHT	ELEC. DATA
FCU-1/HP-1	PHYSICIANS, NURSE CONTROL AND NURSE CONSULT	1,055	5.00	1/3	MED.	160	DX	28,200	20,900	10.00	6.8	23,208	1	208/3	24,000	3.08	17,100	2.20	YES	CARRIER	FA44N030	120	208/3	CARRIER	38YCC030	151	208/3

NOTES:

- 1) PROVIDE UNIT WITH LOW AMBIENT CONTROL.
- 2) ALL EQUIPMENT SHALL BE AS SCHEDULED OR EQUAL.

AIR COOLED ENVIRONMENTAL CONTROL UNIT SCHEDULE

ITEM#	AREA SERVED	COOLING CAPACITY @ 12" DB, 60" WB, 50" RH		EVAPORATOR COIL DATA			FAN SECTION					COMPRESSOR		RE-HEAT SECTION			INFRARED HUMIDIFIER		DISPOSABLE FILTER		INDOOR UNIT (AHU)			OUTDOOR UNIT (CONDENSING)				ELEC. DATA		
		TOTAL BTU/HR	SENSIBLE BTU/HR	FACE AREA	ROWS	F.P.M.	NO.	C.F.M.	O.A.	E.S.P.	H.P.	NO. FANS	NO.	RE-FRIG.	H.P.	BTU/HR	K.W.	STAGES	CAP. LBS./HR	K.W.	SIZE	DEPTH	MODEL NO.	CONDEN.	WEIGHT	MODEL NO.	NO. FAN		HP	WEIGHT (LBS.)
AHU-1/ACCU-1	PROCEDURE ROOM ONE	17,580	15,310	2.1	3	440	1	750	60	.375"	1/4	1	1	R-22	-	17,35	5.0	1	2-5	-	20"x20"	1"	OHS-018-BAHU	7/8"	140	OHS-018-RCU-0	1	1/3	155	208/1
AHU-2/ACCU-2	PROCEDURE ROOM TWO	17,580	15,310	2.1	3	440	1	750	60	.375"	1/4	1	1	R-22	-	17,35	5.0	1	2-5	-	20"x20"	1"	OHS-018-BAHU	7/8"	140	OHS-018-RCU-0	1	1/3	155	208/1

NOTE:

- 1) UNITS SHALL BE FURNISHED WITH THE FOLLOWING OPTIONS: HEATING/RE-HEATING CONTROL, ELECTRODE CANISTER STEAM HUMIDIFIER W/ STANDARD CONTROL, DEHUMIDIFICATION MODE WITH REHEAT, LOW AMBIENT DOWN TO -20°F.

MISCELLANEOUS HEATING SCHEDULE

ITEM#	AREA SERVED	HEATER TYPE	C.F.M.	K.W.	BTU/HR	ELEC. DATA	STEPS OF CONTROL	CONTROL	MANUFACTURER/ MODEL #
EH-1	ENTRANCE & LOCKER RM.	WALL HEATER FAN FORCED	100	1.5	5,120	208/1	1	INTEGRAL THERMOSTAT	GMARK/AWH-4204-2
EH-2	TOILET ROOMS	WALL HEATER FAN FORCED	100	1.0	3,413	120/1	1	INTEGRAL THERMOSTAT	GMARK/CNH-2101
DH-1	WAITING ROOM	ELECTRIC DUCT MOUNTED HEATER	440	6.5	22,185	208/3	1	THERMOSTAT	INDEECO/SLIP-IN
DH-2	CONFERENCE ROOM	ELECTRIC DUCT MOUNTED HEATER	565	7.5	25,600	208/3	1	THERMOSTAT	INDEECO/SLIP-IN
DH-3	CLEAN UTILITY, PASSAGE COMMUNICATIONS, ETC.	ELECTRIC DUCT MOUNTED HEATER	520	4.5	15,354	208/3	1	THERMOSTAT	INDEECO/SLIP-IN
UH-1	ABOVE THE CEILING	HORIZONTAL HEATER FAN FORCED	350	3.0	10,234	208/1	2	INTEGRAL THERMOSTAT	BERKO/HUAAA-320
BBR-1	SITE MANAGER	BASEBOARD	N/A	2.5	8,533	208/1	1	INTEGRAL THERMOSTAT	DESIGN ARCHITECTURAL/ SERIES LBT (5'-0")

NOTE:

- 1) ELECTRIC DUCT HEATER (DH-1) TO BE HEATER TYPE GUA SLIP-IN HEATER (OPEN COIL) WITH CONTROL OPTION 6 AND AIR PROVING SWITCH.

FAN SCHEDULE

ITEM #	AREA SERVED	C.F.M.	E.S.P.	HP/WATTS	R.P.M.	CONTROL	ELEC. DATA	SONES	MODEL #	MFGR.
F-1	TOILET ROOMS	75	.450"	33.6 W	1126	INTERLOCK ON/OFF SWITCH ENERGIZED OCCUPIED HOURS	120/1	3.3	6C-160	COOK
F-2	JANITOR'S CLOSET	60	.375"	18.71 W	1081	INTERLOCK ON/OFF SWITCH ENERGIZED OCCUPIED HOURS	120/1	2.7	6C-140	COOK
F-3	SOILED WORK	110	.450"	36.76 W	1142	INTERLOCK ON/OFF SWITCH ENERGIZED OCCUPIED HOURS	120/1	3.4	6C-160	COOK
F-4	OXYGEN ROOM	100	.500"	1/6 HP	1188	24-HOUR/DAY TIME CLOCK	120/1	11.6	80C3B	COOK

NOTE:

- 1) MANUFACTURER FAN SELECTIONS SHALL INCLUDE EXTERNAL PRESSURE DROP AND FAN DRIVE LOSS.
- 2) ELECTRICAL CONTRACTOR TO BE PROVIDE AND INSTALL ON/OFF SWITCH FOR EXHAUST FANS F-1.
- 3) EXHAUST FAN F-4 TO HAVE EXPLOSION PROOF MOTOR, EXPLOSION PROOF DISCONNECT AND BACKDRAFT DAMPER. BACKDRAFT DAMPER TO BE MANUFACTURED BY COOK, MODEL #BD-12.

EXISTING ROOFTOP UNIT SCHEDULE

ITEM#	AREA SERVED	NOMINAL TONS	FAN DATA		
			C.F.M.	OUTSIDE AIR	E.S.P.
EXRTU-1	RECEPTION, FILE WORK AND WAITING ROOM	5	2,000	220	.60"
EXRTU-2	LOCKERS, STAFF LOUNGE, CONF. AND SITE MANAGER	5	2,000	180	.75"

NOTES:

- 1) CONTRACTOR TO FIELD VERIFY EXISTING ROOFTOP UNITS SERVING THE REVISED TENANT SPACE AND CLEAN FILTERS, LUBRICATE MOTORS AND REPLACE SHEAVES AND PULLEYS AS NEEDED TO ACHIEVE NEW AIRFLOW REQUIREMENTS.
- 2) CONTRACTOR ALSO TO FIELD VERIFY EXISTING ROOFTOP UNITS AND REPLACE EXISTING FAN MOTORS AS NEEDED TO ACHIEVE NEW EXTERNAL STATIC PRESSURE.

PLUMBING FIXTURE SCHEDULE

ITEM #	DESCRIPTION	PIPE SIZES				TRAP TYPE	REMARKS
		C.W.	H.W.	SAN.	VENT		
P-1	WATER CLOSET	1/2"	-	4"	2"	INTEGRAL	HANDICAPPED
P-1A	BEDPAN CLEANER	1/2"	-	-	-	-	-
P-2	WALL HUNG SINK	1/2"	1/2"	2"	2"	"P"	HANDICAPPED
P-2A	PROCEDURE SINK	1/2"	1/2"	2"	2"	"P"	-
P-2B	NURSE/CLEAN/SOILED WORK SINK	1/2"	1/2"	2"	2"	"P"	ONLY THE NURSE CONTROL SINK TO BE PROVIDED WITH EYE WASH
P-2C	LOUNGE SINK	1/2"	1/2"	2"	2"	"P"	-
P-2D	SCRUB SINK	1/2"	1/2"	2"	2"	"P"	-
P-3	JANITOR'S SINK	3/4"	3/4"	3"	2"	"P"	-
P-4	REFRIG. ICE MAKER	1/2"	-	-	-	-	-
P-5	COUNTERTOP COFFEE MAKER	1/2"	-	-	-	-	-

NOTE:

- 1) PROVIDE 80°F TEMPERATURE WATER RISE FOR 40°F ENTERING WATER TEMPERATURE.

SEQUENCE OF OPERATIONS

SPLIT SYSTEM AHU UNITS

- 1) DURING OCCUPIED PERIOD AS PROGRAMMED ON ASSOCIATED AHU THERMOSTAT, BLOWER FAN SHALL RUN CONTINUOUSLY AND OUTSIDE AIR DAMPERS OPEN.
- 2) ON A CALL FOR HEATING, IF ALL SAFETIES ARE SENSED, THEN HEAT PUMP/ELECTRIC HEATER SHALL BE ENERGIZED, HEATER SHALL RUN UNTIL SETPOINT IS SATISFIED.
- 3) ON A CALL FOR COOLING, THE UNIT MOUNTED CONTROLS SHALL ENERGIZE OUTDOOR COMPRESSOR (MECHANICAL COOLING) SHALL BE ENERGIZED. THE UNIT COOLING CYCLE SHALL RUN UNTIL SETPOINT IS SATISFIED.
- 4) DURING NIGHT SETBACK PERIOD AS PROGRAMMED ON ASSOCIATED AHU UNIT THERMOSTAT, BLOWER FAN SHALL BE OFF AND OUTSIDE AIR DAMPERS SHUT. ON A CALL FOR HEATING OR COOLING, THE OUTSIDE AIR DAMPERS SHALL REMAIN CLOSED AND THE FAN OR ASSOCIATED ELECTRIC HEATER OR COMPRESSOR SHALL CYCLE UNTIL SPACE SETPOINTS ARE SATISFIED.
- 5) UNIT SHALL BE DE-ENERGIZED IF SMOKE DETECTOR SENSES SMOKE OR ANY SAFETY/CONTROL EXCEEDS ITS LIMITS.

PACKAGED ROOFTOP (HEAT PUMP) UNIT

- 1) DURING OCCUPIED PERIOD AS PROGRAMMED ON ASSOCIATED HEAT PUMP THERMOSTAT, BLOWER FAN SHALL RUN CONTINUOUSLY.
- 2) ON A CALL FOR HEATING, IF ALL SAFETIES ARE SENSED, THEN HEAT PUMP/ELECTRIC HEATER SHALL BE ENERGIZED, HEATER SHALL RUN UNTIL SETPOINT IS SATISFIED.
- 3) ON A CALL FOR COOLING, THE UNIT MOUNTED CONTROLS SHALL ENERGIZE OUTDOOR COMPRESSOR (MECHANICAL COOLING) SHALL BE ENERGIZED. THE UNIT COOLING CYCLE SHALL RUN UNTIL SETPOINT IS SATISFIED.

- 4) DURING NIGHT SETBACK PERIOD AS PROGRAMMED ON ASSOCIATED HEAT PUMP UNIT THERMOSTAT, BLOWER FAN SHALL BE OFF. ON A CALL FOR HEATING OR COOLING, THE FAN OR ASSOCIATED ELECTRIC HEATER AND/OR COMPRESSOR SHALL CYCLE UNTIL SPACE SETPOINTS ARE SATISFIED.
- 5) UNIT SHALL BE DE-ENERGIZED IF SMOKE DETECTOR SENSES SMOKE OR ANY SAFETY/CONTROL EXCEEDS ITS LIMITS.

EXHAUST FANS

- 1) EXHAUST FAN (E-2 AND E-3) SHALL BE INTERLOCKED WITH TIME CLOCK. TOILET ROOM EXHAUST FAN SHALL BE ENERGIZED DURING OCCUPIED MODE AND DE-ENERGIZED DURING UNOCCUPIED MODE.
- 2) TOILET ROOM EXHAUST FAN (E-1) SHALL BE INTERLOCKED WITH ON/OFF LIGHT SWITCH.
- 3) EXHAUST FAN (E-4) SHALL BE ENERGIZED FOR 24-HOUR MODE.

MISCELLANEOUS HEAT

- 1) WALL RECESSED FAN FORCED HEATER SHALL BE CONTROLLED VIA UNIT/FACTORY MOUNTED INTEGRAL THERMOSTAT. HEATER SHALL BE ENERGIZED UPON A CALL FOR HEAT. UPON REACHING SET POINT HEATER SHALL BE DE-ENERGIZED.

ELECTRIC DUCT HEATER

- 1) ELECTRIC DUCT HEATER SHALL BE INTERLOCKED WITH HEATING ONLY THERMOSTAT. UPON AIRFLOW AIR PROVING SWITCH, BEING SATISFIED, SHALL ALLOW ELECTRIC HEATER TO BE ENERGIZED UPON A CALL FOR HEAT. UPON REACHING SET POINT HEATER SHALL BE DE-ENERGIZED.

ELECTRIC WATER HEATER SCHEDULE

ITEM #	AREA SERVED	KW ELEMENT	SIZE HEIGHT x DIAMETER (IN X IN)	RECOVERY RATE (GPH)	TANK CAPACITY (GALLONS)	PIPE CONNECTIONS		ELEC. DATA	MANUFACTURER/ MODEL #
						INLET (IN)	OUTLET (IN)		
WH-1	JANITOR'S CLOSET, TOILET ROOM/SHOWERS	4.5	60-1/4"x24"	25	82	3/4"	3/4"	208/1	STATE/ LDE-82-10RT-X

NOTE:

- 1) PROVIDE 80°F TEMPERATURE WATER RISE FOR 40°F ENTERING WATER TEMPERATURE.

REVISIONS		
REV#	DATE	DESCRIPTION

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TENANT RENOVATIONS FOR:
RMS LIFE LINE
 WALL STREET AND WESLEY AVENUE
 NORWOOD, OHIO

DATE: 9/26/01	DRAWING NO.
SCALE: AS NOTED	M4
DESIGNED BY: DLI	
DRAWN BY: DLI	2011215.00