

AIR HANDLER SCHEDULE

GENERAL INFORMATION					SUPPLY FAN					COOLING COIL										HEATING COIL										NOTES		
TAG	SERVICE	MANUFACTURER	MODEL	SIZE	SUPPLY AIRFLOW	OUTSIDE AIRFLOW	ESP	MOTOR SIZE	V/PHz	ENTERING AIR (°F)		LEAVING AIR (°F)		COIL CAPACITIES, BTUh			FACE VELOCITY	CHILLED WATER			HEAD LOSS	MINIMUM FLOW	EAT	LAT	COIL CAPACITY	FACE VELOCITY	HOT WATER				RUNOUT	POSITION
										DB	WB	DB	WB					FLOW RATE	EW	LWT							FLOW	EW	LWT			
										DB	WB	DB	WB	SENSIBLE	LATENT	TOTAL		FLOW RATE	EW	LWT							FLOW	EW	LWT			
AHU-1	FLOOR 1	TRANE	CSAA	08	2960	1760	2.0	5	208/3P	83°F	71°F	55°F	54°F	89,694 BTUh	57,478 BTUh	147,172 BTUh	500 FPM	22.6 GPM	42°F	55°F	10 FT	1,776 CFM	43°F	65°F	42,201 BTUh	500 FPM	4.2 GPM	180°F	160°F	1"	PREHEAT	ALL

PROVIDE CARRIER, DAIKIN, JCI AS EQUALS

- NOTES
1. PROVIDE ALL UNITS WITH UNIT MOUNTED SUPPLY AND RETURN FAN VFD'S.

2. ROUTE CONDENSATE TO NEAREST HUB DRAIN.

3. ALL MAINTENANCE FOR COILS, DAMPERS, FANS, MOTORS, AND ALL CONTROLS SHALL BE ON THE SAME SIDE OF UNIT.
4. PROVIDE MOTORIZED OUTSIDE AND RELIEF AIR DAMPERS.

5. AHU FANS SHALL STOP UPON ACTIVATION OF BUILDING FIRE ALARM SYSTEM

VAV BOX SCHEDULE																			
TAG	SERVICE	SYSTEM	MANUFACTURER/MODEL	SIZE	TYPE	COOLING MAXIMUM	COOLING MINIMUM	AHU SA TEMP	HEATING MINIMUM	HEATING MAXIMUM	COIL TEMPERATURE		COIL LOAD	HEATER			INLET SIZE	SOUND RATING	NOTES
											ENTERING	LEAVING		GPM	RUNOUT	dT			
VAV1-01	OFFICE	AHU-1	TRANE/VOWF5	5	SINGLE DUCT	125 CFM	25 CFM	55 °F	63 CFM	88 CFM	55 °F	95 °F	3,815 BTUh	0.4	3/4"	20	5 "	NC 30	1,2,3
VAV1-02	OFFICE	AHU-1	TRANE/VOWF5	5	SINGLE DUCT	200 CFM	40 CFM	55 °F	100 CFM	140 CFM	55 °F	95 °F	6,104 BTUh	0.7	3/4"	20	5 "	NC 30	1,2
VAV1-03	OFFICE	AHU-1	TRANE/VOWF5	5	SINGLE DUCT	200 CFM	40 CFM	55 °F	100 CFM	140 CFM	55 °F	95 °F	6,104 BTUh	0.7	3/4"	20	5 "	NC 30	1,2
VAV1-04	FLEX RES W	AHU-1	TRANE/VOWF5	5	SINGLE DUCT	250 CFM	50 CFM	55 °F	125 CFM	175 CFM	55 °F	95 °F	7,630 BTUh	0.8	3/4"	20	5 "	NC 30	1,2
VAV1-05	FLEX RES MID	AHU-1	TRANE/VOWF6	6	SINGLE DUCT	300 CFM	60 CFM	55 °F	150 CFM	210 CFM	55 °F	95 °F	9,156 BTUh	1.0	3/4"	20	6 "	NC 30	1,2
VAV1-06	FLEX RES E	AHU-1	TRANE/VOWF6	6	SINGLE DUCT	300 CFM	60 CFM	55 °F	150 CFM	210 CFM	55 °F	95 °F	9,156 BTUh	1.0	3/4"	20	6 "	NC 30	1,2
VAV1-07A	COLLAB SPACE N	AHU-1	TRANE/VOWF6	6	SINGLE DUCT	300 CFM	60 CFM	55 °F	150 CFM	210 CFM	55 °F	95 °F	9,156 BTUh	1.0	3/4"	20	6 "	NC 30	1,2
VAV1-07B	COLLAB SPACE S	AHU-1	TRANE/VOWF6	6	SINGLE DUCT	300 CFM	60 CFM	55 °F	150 CFM	210 CFM	55 °F	95 °F	9,156 BTUh	1.0	3/4"	20	6 "	NC 30	1,2
VAV1-08	THIRD SPACE	AHU-1	TRANE/VOWF5	5	SINGLE DUCT	200 CFM	40 CFM	55 °F	100 CFM	140 CFM	55 °F	95 °F	6,104 BTUh	0.7	3/4"	20	5 "	NC 30	1,2
VAV1-09	K12 OFFICE	AHU-1	TRANE/VOWF5	5	SINGLE DUCT	160 CFM	32 CFM	55 °F	80 CFM	112 CFM	55 °F	95 °F	4,883 BTUh	0.5	3/4"	20	5 "	NC 30	1,2
VAV1-10	K12	AHU-1	TRANE/VOWF8	8	SINGLE DUCT	625 CFM	125 CFM	55 °F	313 CFM	438 CFM	55 °F	95 °F	19,075 BTUh	2.0	3/4"	20	8 "	NC 30	1,2

PROVIDE PRICE, TRANE, TITUS AS EQUALS

1. ALL HOT WATER COILS SHALL BE MINIMUM 2-ROWS REGARDLESS OF CAPACITY REQUIREMENTS LISTED HERE.
2. PROVIDE WITH 3-WAY CONTROL VALV E

CHARACTERIZED STEAM CONTROL VALVES

SERVICE	MANUFACTURER/MODEL		VALVE CAPACITY	STEAM LB/HR	STEAM PRESSURE	SIZE
HX-1-1/3	SPENCE	LCV	364 MBH	209	30 PSI	1 1/2"
HX-1-2/3	SPENCE	LCV	729 MBH	420	30 PSI	2"

PROVIDE SPENCE, ARMSTRONG, SPIRAX-SARCO, TCV AS EQUALS

PUMP SCHEDULE

TAG	*MANUFACTURER/MODEL	FLOW RATE	HEAD	MOTOR HP	RPM	TYPE	VOLTAGE	NOTES
HWP-1	TACO	KS1509A	40	65	2	INLINE	208V/3P	ALL
HWP-2	TACO	KS1509A	40	65	2	INLINE	208V/3P	ALL

PROVIDE SPENCE, ARMSTRONG, SPIRAX-SARCO, TCV AS EQUALS

1. PUMP SHALL BE BALANCED WITH VFD
2. PROVIDE 5 PIPE DIAMETER STRAIGHT RUN ON INLET OF PUMP
3. PROVIDE WITH VFD, BALANCE DOWN TO CONNECTED LOAD.

ENERGY RECOVERY VENTILATOR SCHEDULE

MARK	MANUFACTURER/MODEL	FAN INFORMATION			SUMMER PERFORMANCE					WINTER PERFORMANCE				ELECTRICAL					NOTES
		OUTDOOR VOLUME	SUPPLY SP	EXHAUST VOLUME	EXHAUST SP	OUTSIDE WB/DB	RETURN WB/DB	SUPPLY WB/DB	RECOVERY LOAD	OUTSIDE DB	RETURN DB	SUPPLY DB	RECOVERY LOAD	SUPPLY HP	EXHAUST HP	VOLTAGE	MCA	MOCP	
ERV-1	GREENHECK ECV-40H-P-H	5,000 CFM	0.5"	4,800 CFM	0.5"	94 / 76	75 / 62	83 / 70	231.3 MBH	14 °F	68 °F	40 °F	294.3 MBH	2	2	208V/1P	43.4	50	ALL

PROVIDE EQUAL PRODUCTS BY ALDES, RENEWAIRE, OR GREENHECK.

1. PROVIDE UNIT COMPLETE WITH MERV 13 FILTERS.
2. PROVIDE WITH VARIABLE FREQUENCY DRIVES ON BOTH FANS.
3. UNIT HAS BEEN SELECTED FOR FUTURE OUTDOOR AIR SERVICE TO UPPER FLOORS. CONTRACTOR SHALL BALANCE UNIT TO OUTSIDE AIR NUMBERS SPECIFIED IN AHU-1 SCHEDULE.
4. UNIT SHALL BE PROVIDED WITH PREMIUM WEATHER RESISTANT PAINTED FINISH. COLOR BY ARCHITECT.

EXPANSION TANK SCHEDULE

TAG	*MANUFACTURER/MODEL	SYSTEM VOLUME	MIN TEMP	MAX TEMP	MIN PRES.	MAX PRES.	SYSTEM EXPANSION	VOLUME	ACCEPTANC E	TYPE	SERVICE	NOTES
ET-1	TACO	CA450	2500 GAL	55°F	180°F	25 PSIG	125 PSIG	67 GAL	119 GAL	119 GAL	BLADDER	HW

PROVIDE ARMSTRONG, TACO, B&G AS EQUALS

STEAM TO WATER HEAT EXCHANGER SCHEDULE

TAG	LOCATION	TYPE	COLD SIDE DATA				CAPACITY kBTU/HR	FOULING FACTOR	HOT SIDE DATA			MANUF./MODEL	NOTES
			GPM	Δ P FT. H <sub>2</sub> O	EW	LWT			STEAM PRES. TO VALVE	STEAM PRES. TO HX	LB/HR		
HX-1	MECH ROOM	SHELL/TUBE	40	2	140°F	180°F	612	0.0019	30 PSI	30 PSI	630	TACO	G08206-S

PROVIDE TACO, ARMSTRONG, B&G AS EQUALS

THERMOSTAT REQUIREMENTS

MANUFACTURER *	MODEL	QTY
HONEYWELL	TR50	11
MONITORING POINTS		REQUIRED
TEMPERATURE	°F	YES
HUMIDITY	%RH	YES
CARBON DIOXIDE	PPM	YES *
OCCUPANCY SENSOR	BINARY	YES
PARTICULATES	PPM	YES
DISPLAY		
DIGITAL TEMPERATURE DISPLAY	°F	YES
RELATIVE HUMIDITY	%RH	YES
OCCUPIED/UNOCCUPIED STATUS	OCC/UNOCC	YES
LOCAL CO2 ALARM	ALARM	YES
INDOOR AIR QUALITY	1-100	YES
CONTROLS		
PROGRAMMABLE SCHEDULE	24/HR / 7DAY (NOTE 1)	YES
VERRIDE REQUEST	2HR	YES
SET POINT ADJUST	+/- 4 °F	YES
SECURITY		
PASSWORD PROTECTED	PIN	NO
SECURITY COVER	LOCKABLE	NO
COMMUNICATIONS		
BACNET COMPATIBLE	MS/TP	YES
STAND-ALONE		NO

\*BASIS OF DESIGN: PROVIDE EQUAL PRODUCTS BY SIEMENS, SCHNEIDER ELECTRIC.

- NOTES:
1. MODES SHALL INCLUDE OCCUPIED, UNOCCUPIED, MORNING WARM-UP

2. THERMOSTAT SHALL BE CONNECTED TO LIGHTING CONTROL OCCUPANCY SENSOR

\* PROVIDE CO2 on Boxes, VAV1-05, VAV1-07B, VAV1-08, VAV1-10

AIR DISTRIBUTION SCHEDULE

TAG	*MANUFACTURER/MODEL	FACE SIZE	MOUNT	MATERIAL	FINISH	DAMPER	TYPE	NC	NOTES
S1	PRICE	SPD	24X24	ACT	ALUMINUM	WHITE	NONE	PLAQUE	< 20 1, 2
S2	PRICE	SPD	12X12	ACT	ALUMINUM	WHITE	NONE	PLAQUE	< 20 1, 2
S3	PRICE	SDS75	48X6	GYP	ALUMINUM	WHITE	NONE	2-SLOT	< 20 2
S4	PRICE	SDG	12X4	10" SPIRAL	ALUMINUM	WHITE	NONE	LOUVERED	< 20 2
R1	PRICE	80	24X24	ACT	ALUMINUM	WHITE	NONE	PLAQUE	< 20 1, 2
R2	PRICE	80	24X12	ACT	ALUMINUM	WHITE	NONE	PLAQUE	< 20 1, 2
E1	PRICE	80	12X12	ACT	ALUMINUM	WHITE	NONE	PLAQUE	< 20 1, 2

PROVIDE EQUAL PRODUCTS BY TITUS, PRICE OR METALAIRE

- NOTES:
1. SEE PLANS FOR NECK SIZE

2. BALANCE DAMPER TO BE INSTALLED IN THE BRANCH TAKE-OFF.

1 ADDENDUM #1

