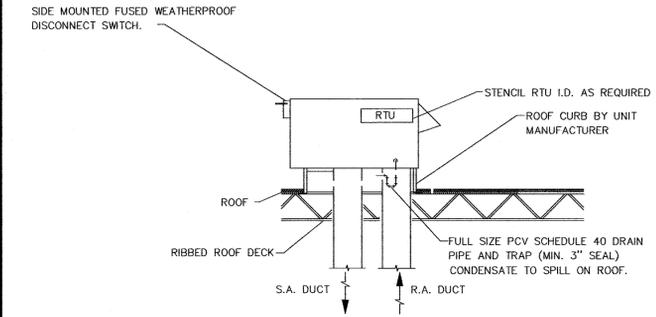
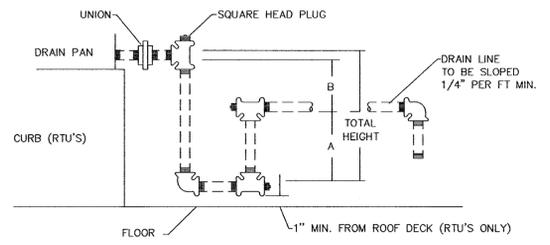


1 TYPICAL DUCT TAKE-OFF DETAIL
M-3 NO SCALE



2 TYPICAL ROOFTOP UNIT DETAIL
M-3 NO SCALE



NOTES:
1. FILL TRAP MANUALLY ON INITIAL START-UP
2. TRAP EACH COMPONENT DRAIN CONNECTION.
3. PIPE SIZE SHALL NOT BE LESS THAN DRAIN PAN CONNECTION SIZE
4. POSITIVE PRESSURE AT DRAIN PAN
A = POS. S.P. ON THE DRAIN PAN + 2"
B = 1"
TOTAL HEIGHT OF TRAP = A+B+(1/2 x PIPE DIAMETER)
5. NEGATIVE PRESSURE AT DRAIN PAN
A = B/2
B = NEG. S.P. + 2"
TOTAL HEIGHT OF TRAP = A+B+(1/2 x PIPE DIAMETER)
6. CONTRACTOR MAY USE STEEL, COPPER, OR PVC PIPE
7. PROVIDE 2" AIR GAP AT DISCHARGE OF DRAIN PIPE

3 CONDENSATE DRAIN TRAP DETAIL
M-3 NO SCALE

SYMBOLS

<ul style="list-style-type: none"> ☒ SUPPLY DUCT (UP OR SECTION) ☒ OUTDOOR AIR DUCT (UP OR SECTION) ☒ SUPPLY OR OUTSIDE AIR DUCT (DOWN\OR AWAY) ☒ EXHAUST DUCT (UP OR SECTION) ☒ RETURN DUCT (UP OR SECTION) ☒ EXHAUST OR RETURN DUCT (DOWN\OR AWAY) ☒ ROUND DUCTWORK UP ☒ ROUND DUCTWORK DOWN ☒ ACOUSTICALLY LINED DUCT ☒ FLEXIBLE CANVAS CONNECTION ☒ CEILING DIFFUSER WITH FLEX DUCTWORK ☒ CEILING DIFFUSER WITH HARD DUCTWORK ☒ CEILING RETURN, EXHAUST OR TRANSFER GRILLE ☒ ROOF VENTILATOR, INTAKE (ROOF PLAN) ☒ ROOF VENTILATOR, EXHAUST (ROOF PLAN) ☒ ROOF VENTILATOR, INTAKE (PLAN VIEW) ☒ ROOF VENTILATOR, EXHAUST (PLAN VIEW) ☒ ROOF VENTILATOR, LOUVERED ☒ VARIABLE AIR VOLUME BOX ☒ VARIABLE AIR VOLUME BOX WITH REHEAT COIL ☒ UNIT HEATER ☒ REHEAT COIL ☒ VOLUME DAMPER ☒ AUTOMATIC DAMPER (ELECTRICAL ACTUATOR) ☒ HUMIDIFIER ☒ BACKDRAFT DAMPER ☒ SMOKE DAMPER ☒ FIRE DAMPER (HORIZONTAL) ☒ FIRE DAMPER (VERTICAL) ☒ SLOT DIFFUSER WITH FLEXIBLE CONNECTION ① THERMOSTAT ② SWITCH ③ ROOM SENSOR ④ ROOM HUMIDISTAT ⑤ ROOM NIGHT SETBACK THERMOSTAT ⑥ DUCT SMOKE DETECTOR 	<ul style="list-style-type: none"> ○ TEE OUTLET UP ○ TEE OUTLET DOWN ○ ELBOW UP ○ ELBOW DOWN ☒ STRAINER ☒ PUMP ☒ AIR VENT MANUAL ☒ BALL VALVE ☒ BUTTERFLY VALVE ☒ CHECK SWING GATE VALVE ☒ PRESSURE REDUCING VALVE ☒ THERMAL EXPANSION VALVE ☒ QUICK OPENING VALVE ☒ GATE ANGLE VALVE ☒ RELIEF VALVE ☒ GLOBE ANGLE VALVE ☒ SOLENOID VALVE ☒ THREE WAY CONTROL VALVE ☒ THREE WAY VALVE ☒ TWO-WAY CONTROL VALVE ☒ GLOBE VALVE ☒ GATE VALVE ☒ PLUG VALVE ☒ THERMOMETER ☒ PRESSURE GAUGE AND COCK ☒ FLEXIBLE CONNECTOR ☒ BALANCING VALVE ☒ GAS SHUT-OFF VALVE ☒ CONNECTION NEW TO EXIST ☒ LINE INDICATES DEMOLITION ☒ DRAIN VALVE W/ 3/4" CAPPED HOSE CONNECTION ☒ FLOW SENSING DEVICE (PITOT TYPE) ☒ FLOW SENSING DEVICE (INLINE STYLE) ☒ NEW WORK ☒ EXISTING WORK
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** SYMBOLS SHOWN ON THIS SHEET ARE NOT ALL NECESSARILY USED ON THIS PROJECT **

ABBREVIATIONS

<ul style="list-style-type: none"> AD- AUTOMATIC DAMPER AFF- ABOVE FINISHED FLOOR AHU- AIR HANDLING UNIT ALD- ACOUSTICALLY LINED DUCT BB- BASEBOARD BDD- BACK DRAFT DAMPER BOD- BOTTOM OF DUCT BOP- BOTTOM OF PIPE C- CHILLER CC- COOLING COIL CFM- CUBIC FEET PER MINUTE CUH- CABINET UNIT HEATER CV- CONVECTOR CWP- CHILLED WATER PUMP DC- DOOR GRILLE DSF- DESTRATIFICATION FAN E- EXHAUST GRILLE EBB- ELECTRIC BASEBOARD EC- ELECTRICAL CONTRACTOR EDH- ELECTRIC DUCT HEATER EF- EXHAUST FAN ERHC- ELECTRIC REHEAT COIL EJH- ELECTRIC UNIT HEATER EW- ELECTRIC WALL HEATER FD- FIRE DAMPER FPR- FINNED PIPE RADIATION GC- GENERAL CONTRACTOR HC- HEATING COIL HU- HUMIDIFIER HWP- HOT WATER PUMP IH- INTAKE HOOD L- LOUVER MC- MECHANICAL CONTRACTOR MUA- MAKEUP AIR UNIT O.A.- OUTDOOR AIR PRV- POWER ROOF VENTILATOR R- RETURN GRILLE RH- RELIEF HOOD RHC- REHEAT COIL RTU- ROOF TOP UNIT S- SUPPLY GRILLE T- TRANSFER GRILLE TC- TEMPERATURE CONTROL CONTRACTOR TOD- TOP OF DUCT TOP- TOP OF PIPE UCD- UNDER CUT DOOR UH- UNIT HEATER UV- UNIT VENTILATOR VD- VOLUME DAMPER 	<ul style="list-style-type: none"> A- COMPRESSED AIR BBD- BOILER BLOW DOWN C- CONDENSATE (DRAIN) CR- CONDENSER WATER RETURN CS- CONDENSER WATER SUPPLY CWR- CHILLED WATER RETURN CWS- CHILLED WATER SUPPLY G- GAS LINE H- HUMIDIFICATION LINE HCR- HOT/CHILLED WATER RETURN HCS- HOT/CHILLED WATER SUPPLY HG- REFRIGERANT HOT GAS LINE HPC- HIGH PRESSURE CONDENSATE HPS- HIGH PRESSURE STEAM HPWR- HEAT PUMP WATER RETURN HPWS- HEAT PUMP WATER SUPPLY HWR- HOT WATER RETURN HWS- HOT WATER SUPPLY LPC- LOW PRESSURE CONDENSATE LPS- LOW PRESSURE STEAM MPC- MEDIUM PRESSURE CONDENSATE MPS- MEDIUM PRESSURE STEAM MU- MAKEUP WATER PC- PUMPED CONDENSATE RL- REFRIGERANT LIQUID LINE RS- REFRIGERANT SUCTION LINE VAC- VACUUM (AIR)
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** ABBREVIATIONS SHOWN ON THIS SHEET ARE NOT ALL NECESSARILY USED ON THIS PROJECT **

ROOFTOP UNIT SCHEDULE

PLAN MARK	AREA SERVED	WEIGHT (LBS.)	BLOWER DATA				E.A.T. (°F)		L.A.T. (°F)		ELECTRICAL DATA			GAS PRESS. REQUIRED	HEATING CAPACITY		COOLING CAPACITY		E.E.R.	MANUFACTURER	MODEL NO.	COMMENTS	
			ACFM TOTAL	ACFM O.A. (MIN.)	EXT. STATIC PRESSURE (IN. W.G.)	RPM (MAX.)	MOTOR HP	DB	WB	DB	WB	MCA	MOCP		VOLTS/PHASE/CYCLES	INPUT MBH	OUTPUT MBH	SENSIBLE MBH					TOTAL MBH
RTU-5	COMM. EQUIPMENT RM.	1252	3200	0	.50	1200	1 1/2	80.0	61.0	-	-	53.6	60	208/3/60	-	-	-	106.3	100.7	12.5	TRANE	THC-120D	NEW

1. PROVIDE ECONOMIZER AND POWER RELIEF.
2. ALL COMPRESSORIZED EQUIPMENT TO RANDOMLY START. CONTROL THROUGH DDC SYSTEM.
3. RTU-5: HIGH EFFICIENCY, COOLING ONLY

REVISIONS

DESIGNED BY	DTP
DRAWN BY	DTP
CHECKED BY	TEI
DATE	July 2011
SCALE	1/8"=1'-0"
JOB NUMBER	
SHEET NUMBER	M-3
OF	3