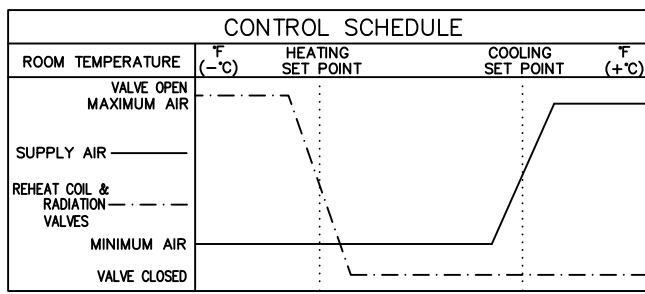


**VAV, RHT, & RADIATION CONTROL DIAGRAM**  
 LOCATION: SEE CONTRACT DWGS  
 SERVES: SEE CONTRACT DWGS

**INSTALLATION NOTES:**

- 1 VAV BOX INSTALLED BY MECHANICAL CONTRACTOR WITH 3 TO 5 STRAIGHT DUCT DIAMETERS UPSTREAM OF BOX TO PROVIDE PROPER FLOW SENSING
- 2 TEC-1 TO BE MOUNTED IN MANUFACTURER SUPPLIED CONTROLLER ENCLOSURE
- 3 REFER TO BUILDING POWER TRUNK DRAWING FOR 24 VAC POWER
- 4 MOUNT ACTUATOR WITH DAMPER IN FULL OPEN POSITION. VERIFY TEC-1 AND ACTUATOR REQUIREMENT WITH THE BOX MANUFACTURER
- 5 LOCATE AS SHOWN ON FLOOR PLANS/CONTRACT DOCUMENTS



DEVICE	SIEMENS		MANUFACTURER	DIVISION 16	DIVISION 15
	FITTER	ELEC.			
TTE-1		M,W			
AE-1			M,W		
TEC-1			M,W,P		
V-1,2		W			M
LAN TRUNK		W			
POWER (24VAC)		W			

M-MOUNTED  
 W-WIRED  
 P-PIPED

**SEQUENCE OF OPERATION: (VAV WITH REHEAT AND RADIATION)**

THE VARIABLE VOLUME (VAV) TERMINAL UNIT IS CONTROLLED INDEPENDENT OF SYSTEM PRESSURE FLUCTUATIONS BY AN APPLICATION SPECIFIC DDC CONTROLLER USING ELECTRIC ACTUATION. THE SPACE SERVED BY THE VAV TERMINAL UNIT IS CONTROLLED IN OCCUPIED AND UNOCCUPIED MODES AS FOLLOWS:

**OCCUPIED**

THE VAV TERMINAL UNIT IS CONTROLLED WITHIN USER DEFINED MAXIMUM AND MINIMUM SUPPLY AIR VOLUME SETTINGS. THE CONTROLLER MONITORS THE ROOM TEMPERATURE SENSOR AND AIR VELOCITY SENSOR AND MODULATES THE SUPPLY AIR VOLUME IN SEQUENCE WITH THE REHEAT AND RADIATION VALVES TO MAINTAIN THE ROOM TEMPERATURE AT SET POINT. ON A CALL FOR HEATING THE SUPPLY AIR VOLUME WILL REMAIN AT MINIMUM AND THE HW REHEAT AND RADIATION VALVES WILL MODULATE TOGETHER IN UNISON TO MAINTAIN SPACE TEMPERATURE SET POINT. UPON OA BEING GREATER THAN 60 DEG F(ADJ) THE RADIATION VALVE WILL REMAIN CLOSED, WITH ONLY THE HW REHEAT VALVE MODULATING TO MAINTAIN SPACE TEMPERATURE SET POINT. WHEN THE SPACE TEMPERATURE RISES ABOVE SET POINT THE HEATING VALVE(S) WILL MODULATE CLOSED AND AIR VOLUMES WILL INCREASE TOWARDS THE BOXES MAXIMUM CFM SETTING.

**UNOCCUPIED**

THE TERMINAL UNIT IS CONTROLLED USING THE NIGHT SET POINT AND/OR AIR VOLUME SETTINGS. THE CONTROLLER MAY RESET TO THE OCCUPIED MODE FOR A PREDETERMINED TIME PERIOD UPON A SIGNAL FROM THE CONTROL SYSTEM OR MANUALLY AT THE ROOM SENSOR.

DISCHARGE AIR COMMISSIONING SENSOR IS INSTALLED AND USED FOR DIAGNOSTIC PURPOSES ONLY.

