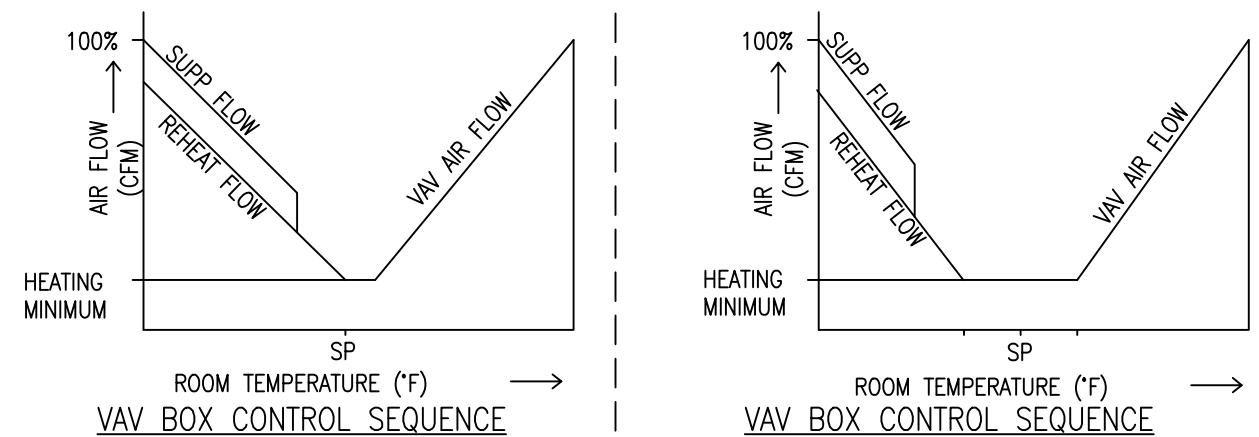
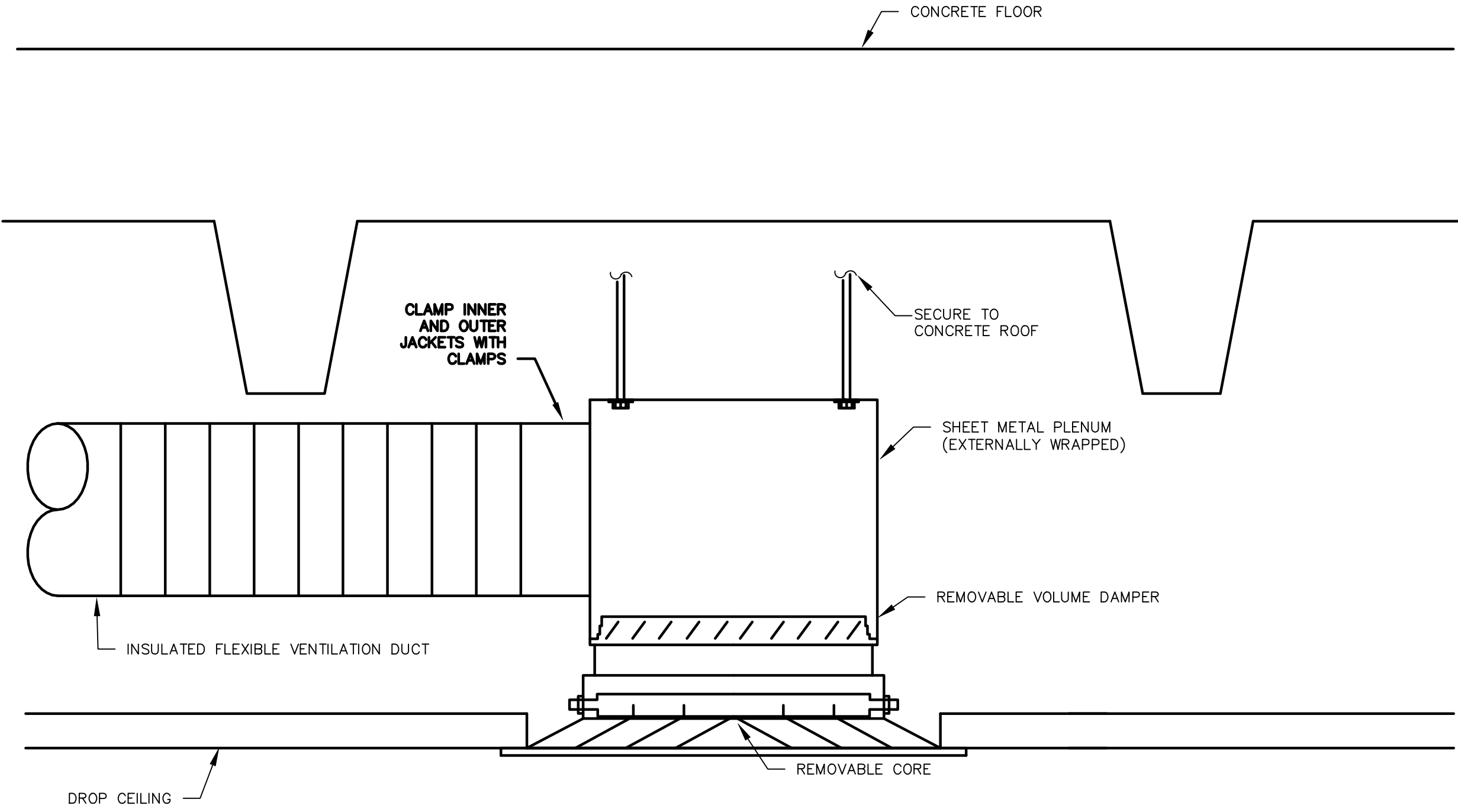
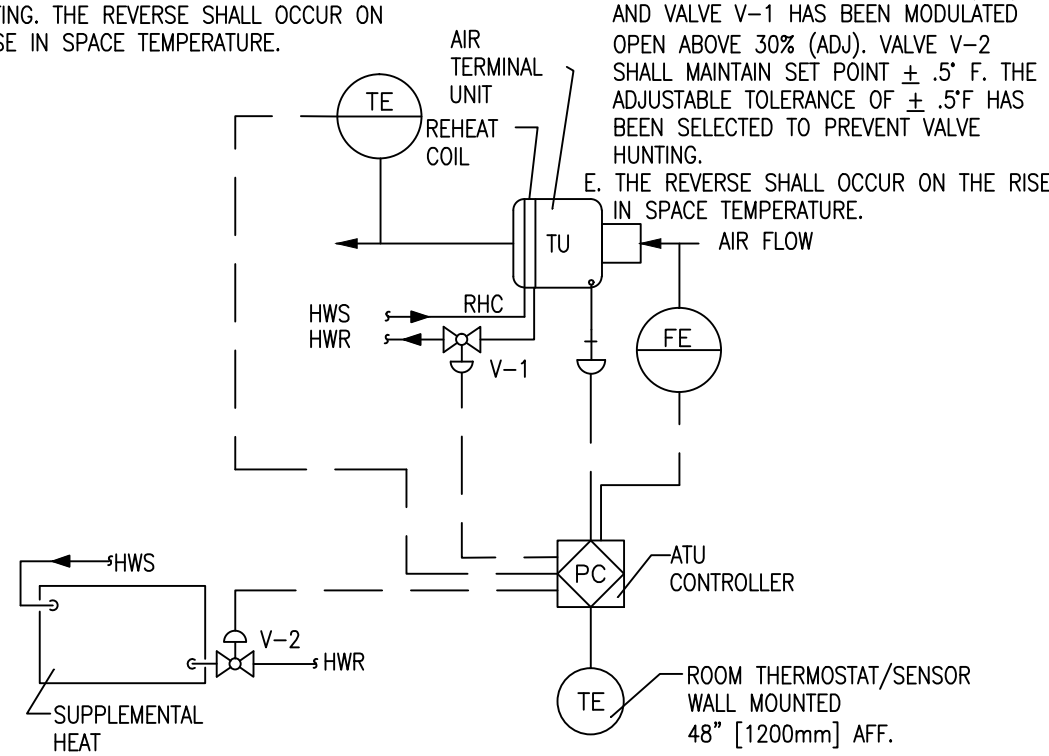


OCCUPIED MODE:
A. SET POINTS SHALL BE SET AS FOLLOWS:
HEATING 75°F (ADJ)
COOLING 70°F (ADJ)
DEADBAND OF 5° F BETWEEN HEATING AND COOLING SET POINTS WILL BE MAINTAINED.
B. UPON FALL IN SPACE TEMPERATURE BELOW THE COOLING SP THE VAV DAMPER WILL MODULATE TO MINIMUM POSITION.
C. UPON FURTHER DROP IN SPACE TEMPERATURE VALVE V-1 WILL MODULATE TO MAINTAIN HEATING SET POINT ± .5° F. (THE ADJUSTABLE TOLERANCE OF ± .5° F HAS BEEN SELECTED TO PREVENT VALVE HUNTING)
D. VALVE V-2 SHALL BE ENABLED WHEN OUTSIDE AIR FALLS BELOW 40° F (ADJ) AND VALVE V-1 HAS BEEN MODULATED OPEN ABOVE 10% (ADJ). VALVE V-2 SHALL MAINTAIN SET POINT ± .5° F. ON CONTINUED DROP IN SPACE TEMPERATURE V-1 SHALL MODULATE OPEN TO MAINTAIN SPACE TEMPERATURE SET POINT.
E. THE REVERSE SHALL OCCUR ON THE RISE IN SPACE TEMPERATURE.

UNOCCUPIED MODE (HEATING):
A. SET POINT SHALL BE 55°F (ADJ)
B. MODULATE VALVE V-2 TO MAINTAIN SET POINT ± .5° F.



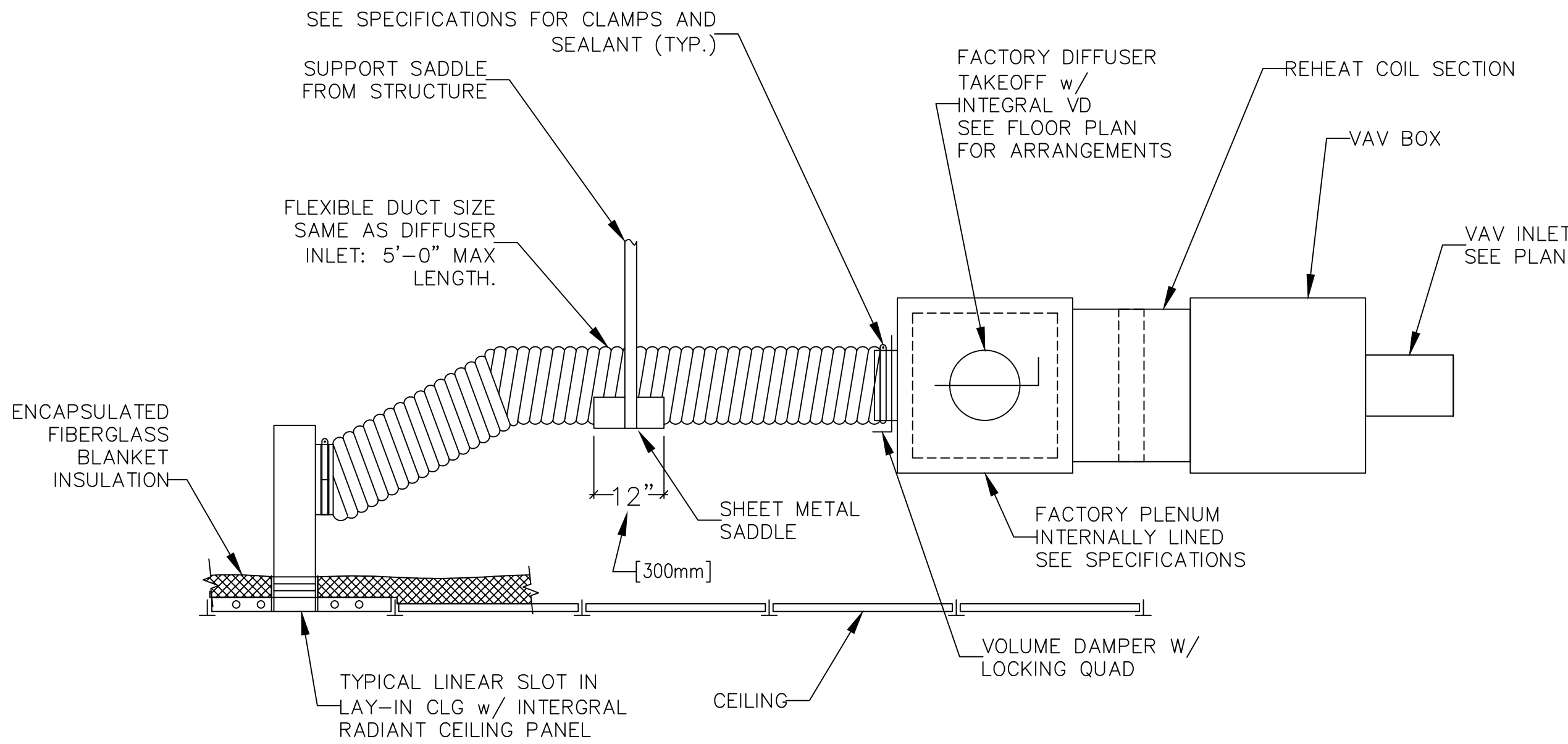
A. UPON FALL IN SPACE TEMPERATURE THE VAV DAMPER WILL MODULATE TO MINIMUM POSITION.
B. UPON FURTHER DROP IN SPACE TEMPERATURE VALVE V-1 WILL MODULATE TO MAINTAIN SET POINT ± .5° F. (THE ADJUSTABLE TOLERANCE OF ± .5° F HAS BEEN SELECTED TO PREVENT VALVE HUNTING)
C. UPON FURTHER DROP IN SPACE TEMPERATURE VALVE V-1 WILL MODULATE TO MAINTAIN SET POINT ± .5° F. (THE ADJUSTABLE TOLERANCE OF ± .5° F HAS BEEN SELECTED TO PREVENT VALVE HUNTING)
D. VALVE V-2 SHALL BE ENABLED WHEN OUTSIDE AIR FALLS BELOW 40° F (ADJ) AND VALVE V-1 HAS BEEN MODULATED OPEN ABOVE 30% (ADJ). VALVE V-2 SHALL MAINTAIN SET POINT ± .5° F. (THE ADJUSTABLE TOLERANCE OF ± .5° F HAS BEEN SELECTED TO PREVENT VALVE HUNTING. THE REVERSE SHALL OCCUR ON A RISE IN SPACE TEMPERATURE.



1 VARIABLE AIR VOLUME (VAV) TERMINAL UNIT CONTROL DIAGRAM
NTS

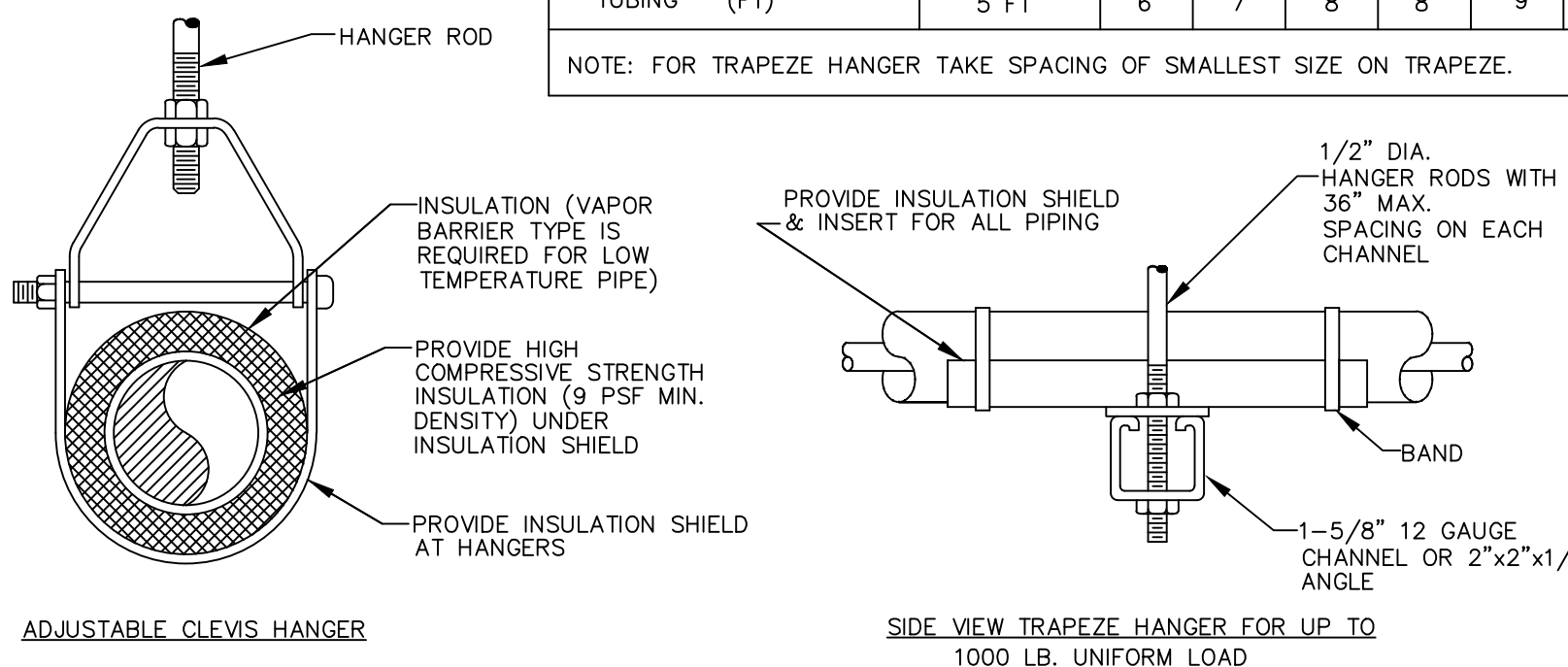
2 DIFFUSER ASSEMBLY (TYP)
NTS

5 VARIABLE VOLUME AIR TERMINAL UNIT CONTROL DIAGRAM
NTS



MAXIMUM PIPE/TUBING SUPPORT SPACING							
NOM. SIZE (IN)	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3
PIPE (FT)	7	7	7	9	10	11	12
TUBING (FT)	5 FT	6	7	8	8	9	10

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.



4 VAV VALVE BOX DETAIL (TYP)
NTS

CONSULTANTS:

ARCHITECT/ENGINEERS:

Drawing Title
HVAC CONTROLS

Project Title
RENOVATE FOR EDUCATION
SERVICE AND ADMINISTRATIVE
SPACE

Project Number
528A7-12-732

Building Number
16

Approved: Project Director

Location
SYRACUSE VAMC

Drawing Number

Date
7/28/2012

Checked
CF

Drawn
AZH

MH-101
DWG 13 OF 23

