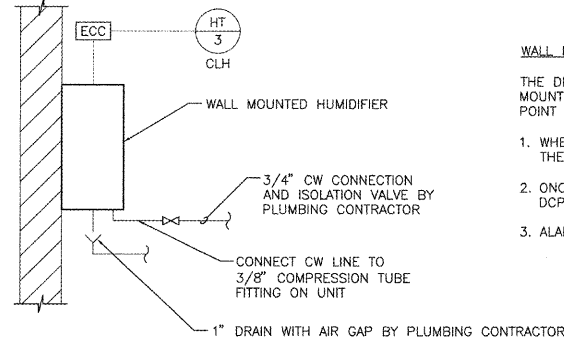


JOB: 509-12-104 BUILDING: 110		POINT LEGEND	SYSTEM OUTPUTS		SYSTEM INPUTS		SYSTEM SOFTWARE/CONTROL		PAGE:
			BINARY	ANA-LOG	BINARY	ANALOG	ALARM PROCESSING	APPLICATION/FUNCTION	
SYSTEMS:									
WALL MOUNTED HUMIDIFIER									
SYSTEM COMPONENT:									
CLEAN ROOM HUMIDITY	AI-17	CLH (HT-3)							
CLEAN ROOM TEMPERATURE	AI-18	CLT (TT-10)							
SUPPLY AIR TEMPERATURE	AI-19	SAT (TT-11)							
SUPPLY AIRFLOW (CFM)	AI-20	SAF (FT-4)							
HUMIDIFIER STATUS	BI-8	HUM-STS							
HUMIDIFIER ALARM	BI-9	HUM-ALA							
HUMIDIFIER START/STOP	BO-3	HUM-SST							



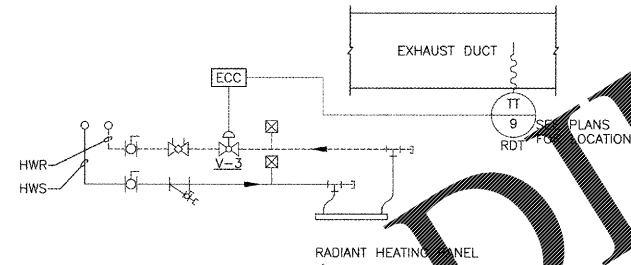
**WALL MOUNTED SPACE HUMIDIFICATION UNIT CONTROL SEQUENCE**

THE DIGITAL CONTROL PANEL (DCP) SHALL CONTROL WALL MOUNTED HUMIDIFICATION UNIT TO MAINTAIN SPACE HUMIDITY SET POINT AS SENSED BY HUMIDITY SENSOR, HT-3.

1. WHEN THE SPACE HUMIDITY FALLS BELOW 30% (ADJUSTABLE), THE DCP SHALL SIGNAL THE UNIT TO START.
2. ONCE SPACE HUMIDITY RISES ABOVE 60% (ADJUSTABLE), THE DCP SHALL SIGNAL THE UNIT TO STOP.
3. ALARM ROOM HUMIDITY BELOW 20%.

**C1 WALL MOUNTED HUMIDIFICATION UNIT CONTROL**  
SCALE: NONE

JOB: 509-12-104 BUILDING: 110		POINT LEGEND	SYSTEM OUTPUTS		SYSTEM INPUTS		SYSTEM SOFTWARE/CONTROL		PAGE:
			BINARY	ANA-LOG	BINARY	ANALOG	ALARM PROCESSING	APPLICATION/FUNCTION	
SYSTEMS:									
RADIANT HEATING PANELS									
SYSTEM COMPONENT:									
EXHAUST AIR TEMPERATURE	AI-16	RDT (TT-9)							
RADIANT HEATING VALVE, V-3	AO-8	RDP-V3							



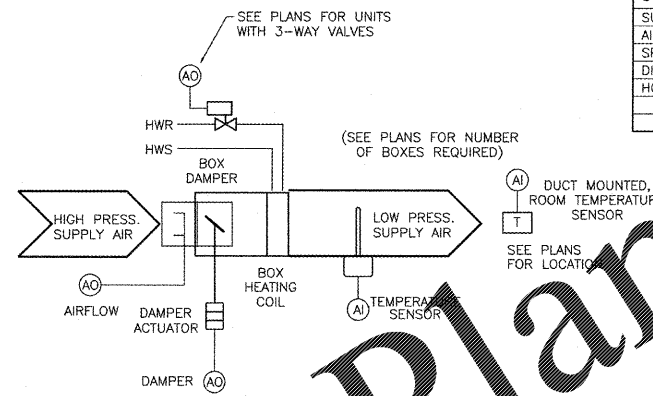
**RADIANT HEATING PANEL CONTROL SEQUENCE**

WHEN OUTSIDE AIR TEMPERATURE, AS SENSED BY THE ENGINEERING CONTROL CENTER (ECC), IS BELOW 71°F (ADJUSTABLE), RADIANT HEATING PANEL CONTROL VALVE, V-3 SHALL BE MODULATED TO MAINTAIN ITS RESPECTIVE SPACE OPERATING SET POINT.

1. WHEN THE SPACE FALLS BELOW 68°F (ADJUSTABLE), THE DCP SHALL MODULATE VALVE, V-3 TO THE FULL OPEN POSITION.
2. UPON A RISE IN SPACE TEMPERATURE ABOVE 68°F (ADJUSTABLE), THE DCP SHALL MODULATE VALVE V-3 TO THE CLOSED POSITION.

**C2 RADIANT HEATING PANEL CONTROL SEQUENCE**  
SCALE: NONE

JOB: 509-12-104 BUILDING: 110		POINT LEGEND	SYSTEM OUTPUTS		SYSTEM INPUTS		SYSTEM SOFTWARE/CONTROL		PAGE:
			BINARY	ANA-LOG	BINARY	ANALOG	ALARM PROCESSING	APPLICATION/FUNCTION	
SYSTEMS:									
VAV UNITS WITH HOT WATER REHEAT									
SYSTEM COMPONENT:									
SUPPLY AIRFLOW (CFM)	AI-21	SAF (FT-5)							
AIR DAMPER POSITION	AO-9	ADP							
SPACE TEMPERATURE	AI-23	ST (TT-12)							
DISCHARGE TEMPERATURE	AI-24	DT (TT-13)							
HOT WATER COIL VALVE	AO-10	HWV-5							



**VAV AIR TERMINAL UNITS WITH RE-HEAT**

**OCCUPIED MODE**

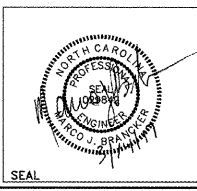
1. EACH VARIABLE AIR VOLUME (VAV) TERMINAL UNIT SHALL BE MODULATED TO MAINTAIN ITS RESPECTIVE SPACE TEMPERATURE SET POINT. THE SPACE TEMPERATURE SENSOR SHALL SIGNAL THE TERMINAL'S AIR FLOW CONTROLLER IN RESPONSE TO THE ROOM'S REQUIREMENTS. THE MAXIMUM AND MINIMUM AIR FLOW LIMITS SHALL BE ADJUSTABLE. WHEN THE SPACE FALLS BELOW THE ROOM'S SET POINT, THE CONTROLLER SHALL MODULATE THE AIR FLOW TO THE SELECTED MINIMUM POSITION.
2. UPON A FURTHER DROP IN ROOM TEMPERATURE, THE BAS SHALL ACT TO MODULATE THE HOT WATER HEATING COIL CONTROL VALVE TOWARDS ITS FULL OPEN POSITION. (THE DAMPERS IN THE VAV TERMINAL UNITS SHALL HAVE BEEN MODULATED TO THEIR MINIMUM POSITION BEFORE THE HEATING VALVE IS OPENED.)
3. EACH CONSTANT AIR VOLUME (CAV) TERMINAL UNIT SHALL BE SIMILAR TO THE VAV UNITS, EXCEPT THAT, UPON A FALL IN ROOM TEMPERATURE, THE AIRFLOW SHALL REMAIN CONSTANT AND THE HOT WATER CONTROL VALVE SHALL BE MODULATED TOWARD ITS FULL OPEN POSITION.

**F1 VAV AND CONSTANT VOLUME AIR TERMINAL UNIT WITH REHEAT CONTROL DIAGRAM**  
SCALE: NONE

BUILDING AUTOMATION SYSTEM SHALL BE AN EXTENSION OF EXISTING CONTROLS SYSTEM. CONTROLS CONTRACTOR SHALL COORDINATE WITH THE VA AND SYSTEMS INTEGRATOR FOR FULL DDC SYSTEM FUNCTIONALITY AT THE ENGINEERING CONTROL CENTER (ECC)

REVISION	DESCRIPTION

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Recommended Approvals:	
1. MEDICAL CENTER DIRECTOR	6. OPERATIONS SERVICE LINE MANAGER
2. ASSISTANT DIRECTOR	7. INFECTION CONTROL MANAGER
3. CHIEF OF STAFF	8. SAFETY MANAGER
4. ASSOC. DIRECTOR	9. GENERAL ENGINEER
5. SERVICE LINE MGRS.	10. COR

Drawing Title <b>MECHANICAL CONTROL DIAGRAMS</b>
100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Project Title <b>RENOVATE MENTAL HEALTH UNITS</b>	Date February 10, 2017
Project Number 509-12-104	DRAWING No. <b>M702</b>
Drawn	Building Number
Checked	Reviewed
AutoCAD File Name	Const. Contract No.

