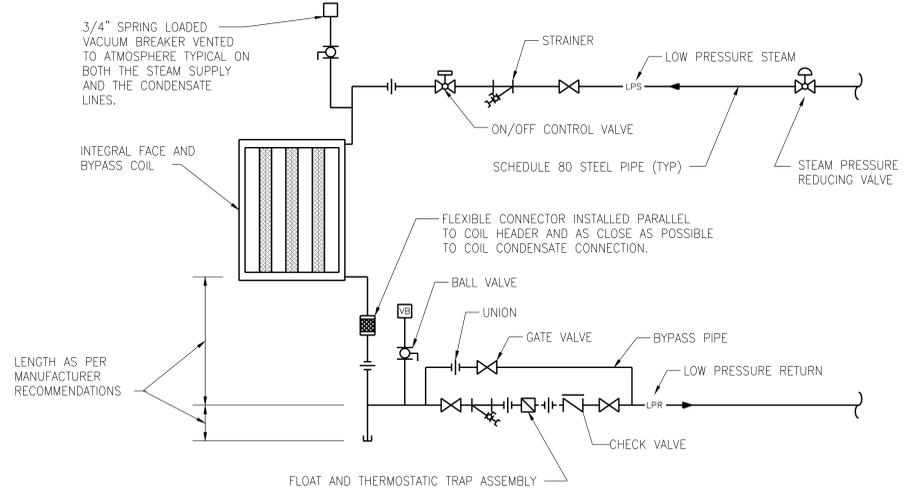


NOTE:

1. A VERTICAL DAMPER IS SHOWN. HORIZONTAL DAMPER INSTALLATION, IS SIMILAR. FOLLOW DAMPER MANUFACTURER'S INSTRUCTIONS, INCLUDING FASTENER OPTIONS AND GAGES FOR SLEEVE AND PERIMETER ANGLES. FIRE DAMPERS MUST BE INSTALLED IN THE PARTITION OR FLOOR AND NOT OUTSIDE THE PENETRATION.
2. GALVANIZED SLEEVE: GAGE NOT LESS THAN CONNECTING DUCT. FASTEN SLEEVE TO DAMPER FRAME AND TO PERIMETER ANGLES.
3. PERIMETER ANGLES: GALVANIZED STEEL, NOT LESS THAN 1 1/2"x1 1/2" [40x40mm], 14 GAGE, TO PROVIDE 1" [25mm] MINIMUM OVERLAP OF OPENING ON ALL 4 SIDES.
4. BREAKAWAY DUCT CONNECTION: CONTRACTOR'S OPTION OF TYPES SHOWN IN SMACNA. ACCESS PANELS: SIZE AND LOCATION TO PERMIT SERVICING THE FUSIBLE LINK OR LINKS.
5. PROVIDE 1/4" TO 1/2" [6 to 15mm] CLEARANCE ON HEIGHT AND WIDTH. FILL OPEN SPACE WITH ROCK WOOL FIRESTOP FIBER.
6. ALL DUCT WORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND MECHANICAL ROOM FLOORS, SHALL BE PROVIDED WITH 3" [75mm] HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

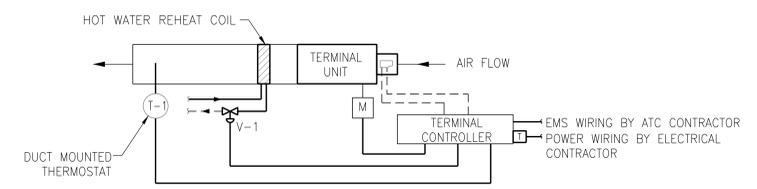
SECTION THRU FIRE DAMPER INSTALLATION

7 NTS



INTEGRAL FACE AND BYPASS DAMPER INSTALLATION

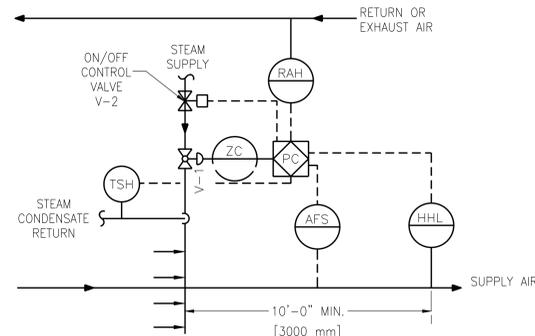
6 NTS



- VAV AIR TERMINAL UNIT WITH REHEAT SEQUENCE OF CONTROL:**
1. TEMPERATURE SENSOR T-1 SHALL CONTROL DDC CONTROLLER FOR VARIABLE VOLUME TERMINAL UNIT AND REHEAT COIL VALVE V-1.
 2. ON A DROP IN TEMPERATURE BELOW THE SET POINT, THERMOSTAT T-1, THRU DDC CONTROLLER, SHALL REDUCE AIR FLOW TO THE ROOM TO THE UNIT MINIMUM SETTING.
 3. ON A FURTHER DROP IN ROOM TEMPERATURE, THERMOSTAT T-1 SHALL MODULATE VALVE V-1 TO MAINTAIN THE REQUIRED TEMPERATURE.

4 VAV AIR TERMINAL UNIT WITH HOT WATER REHEAT CONTROL DIAGRAM

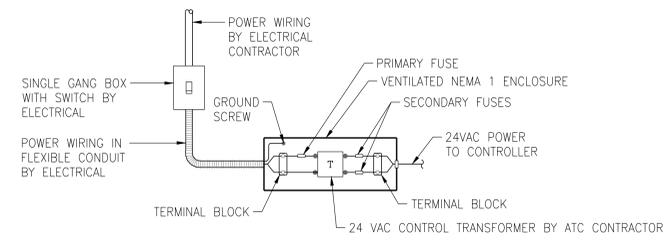
SCALE: NONE



STEAM HUMIDIFIER
RETURN (OR EXHAUST) AIR HUMIDITY SHALL BE MONITORED. ON A CALL FOR HUMIDIFICATION, HUMIDIFIER VALVE V-1 SHALL MODULATE TO MAINTAIN THE RETURN (OR EXHAUST) AIR HUMIDITY SET POINT TO 30% (ADJUSTABLE). PRIOR TO ACTIVATION OF V-1, THE ON/OFF CONTROL VALVE V-2 SHALL BE ENABLED THROUGH ECC AND JACKET TEMPERATURE SENSED BY TSH SHALL BE WARM ENOUGH TO PREVENT CONDENSATION. THE HIGH LIMIT HUMIDITY SENSOR, LOCATED IN THE SUPPLY AIR DUCT 10 FEET AWAY FROM THE HUMIDIFIER SHALL DISABLE THE HUMIDIFIER AND GIVE AN ALARM SIGNAL TO THE ECC. IF THE SUPPLY AIR HUMIDITY EXCEEDS 90% RH (ADJUSTABLE), THE AIRFLOW SWITCH SHALL PROVE AIRFLOW BEFORE HUMIDITY CONTROLS ARE ACTIVATED.

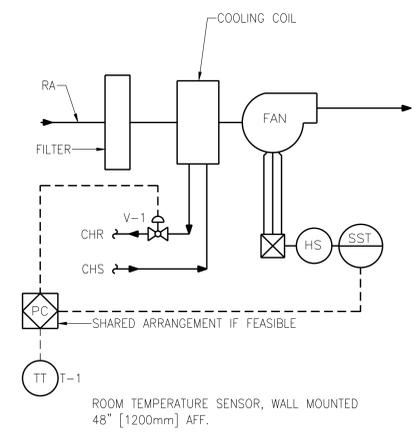
3 STEAM HUMIDIFIER CONTROLS

SCALE: NONE



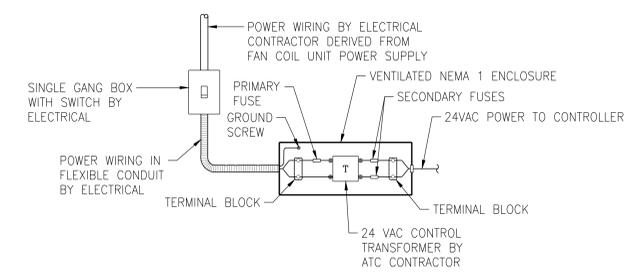
5 DETAIL: TYPICAL CONTROLLER POWER SUPPLY

SCALE: NONE



2 COOLING ONLY FAN COIL UNIT CONTROLS

SCALE: NONE



1 DETAIL: FAN COIL UNIT CONTROLLER POWER SUPPLY

SCALE: NONE



Engineering Service

Rev	Date	Description

Designed by	Check by	Reviewed by	Submitted by

PROJECT TO REPLACE AIR HANDLING UNIT IN BUILDING 4

VETERANS ADMINISTRATION BUILDING #4 HVAC RENOVATION FAYETTEVILLE, AR
MECHANICAL DETAILS

Sheet reference number: M-2