

**CONSULTANTS:**

OWNER'S PROJECT ADVISOR:  
MOSES TUCKER REAL ESTATE, INC.

CIVIL ENGINEER:  
MCLELLAND ENGINEERS

LANDSCAPE ARCHITECT:  
LARSON BURNS SMITH

STRUCTURAL ENGINEER:  
CROMWELL ENGINEERS INC.

MECH., ELEC., PLUMB. ENGINEER:  
CROMWELL ENGINEERS INC.

SUSTAINABLE CONSULTANT:  
BNIM / ELEMENTS

GLOBAL VILLAGE CONSULTANT  
CAMBRIDGE SEVEN ASSOCIATES

INTERIOR DESIGNER:  
POLK STANLEY YEARY

GENERAL CONTRACTOR:  
CDI

**GENERAL NOTES:**

**NOTES:**

ISSUE DATE:  
DECEMBER 15, 2003  
CORE/SHELL  
PACKAGE #5

**REVISIONS:**

#	DATE	DESCRIPTION
1	1-23-04	PACKAGE 5-ADDM. 02
2	7-1-04	PACKAGE 7, 100% ROLL UP
3	11-29-04	ASI #27

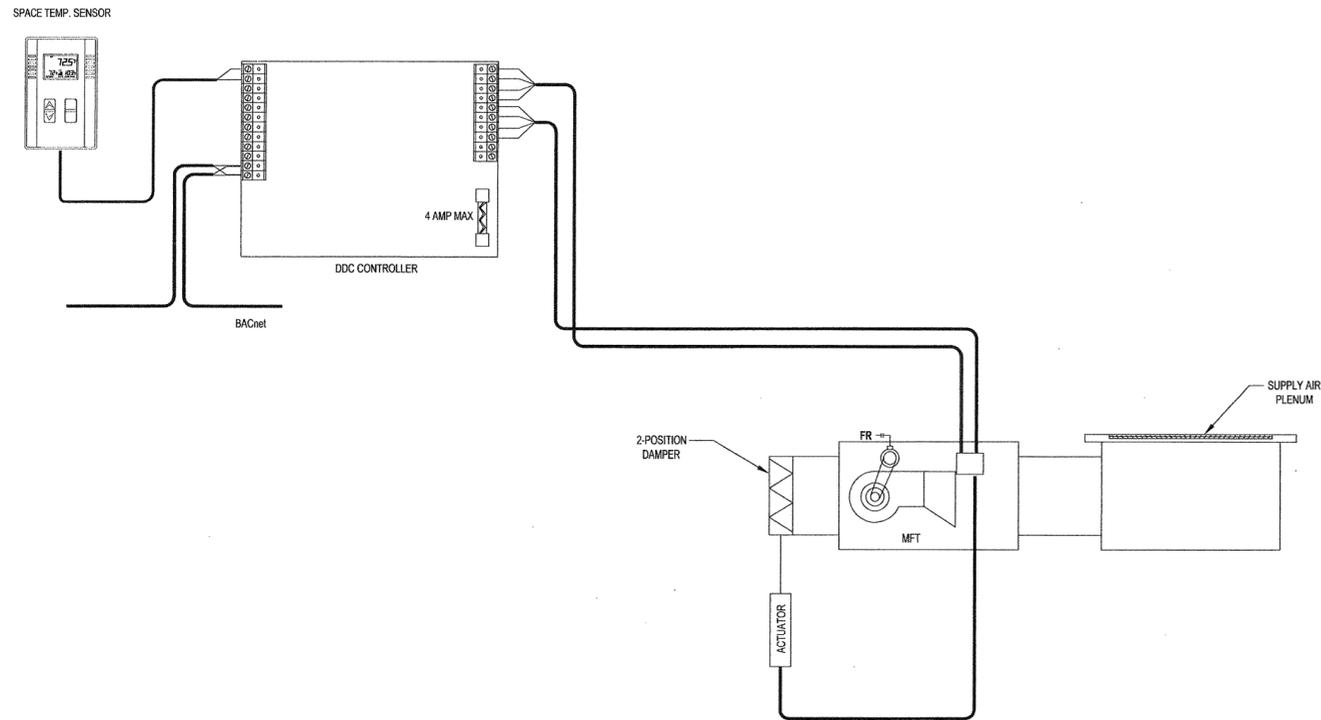
**HEIFER  
INTERNATIONAL  
CENTER  
OFFICE BUILDING**

LITTLE ROCK, ARKANSAS

PSY PROJECT NUMBER:  
431C

CONTENTS:  
HVAC CONTROLS  
SHEET NUMBER:

**M404**



**1 MODULAR FAN POWER TERMINALS "MFT"**  
M404 | M404 NO SCALE

**SEQUENCES OF OPERATION**

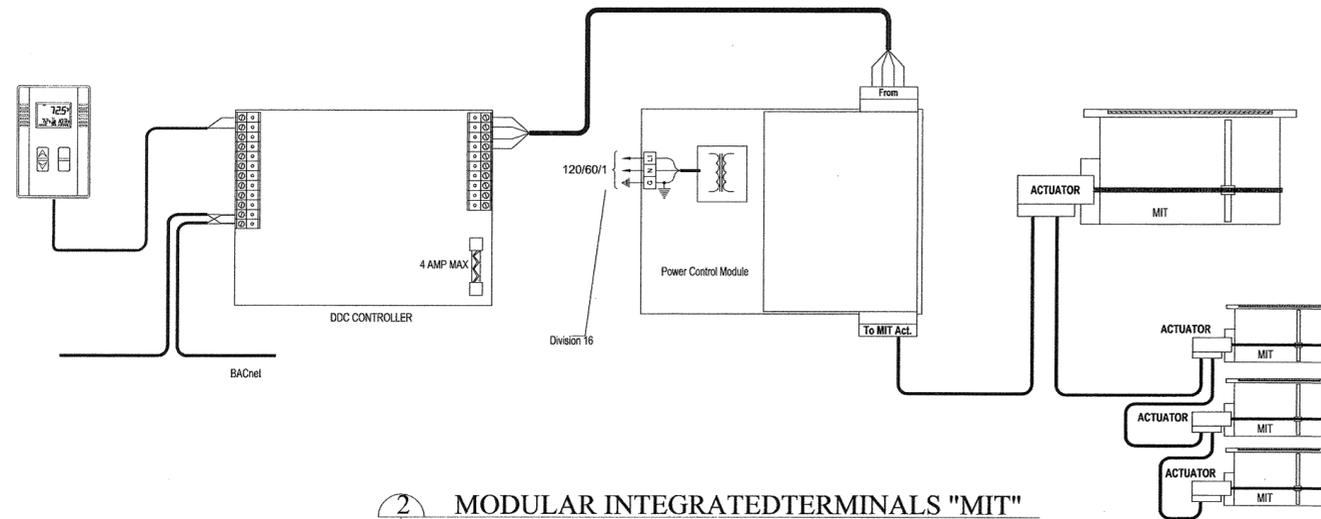
**Occupied/Unoccupied Mode**

The dedicated ddc controller for the zone's MFT network will place the MFT(s) into occupied mode based on user defined schedule or unoccupied override from zone digital thermostat interface (Microset).

**Space Temperature Control**

**Cooling Mode:**  
When the space temperature rises above the current cooling setpoint (as sensed by digital thermostat), the controller shall deliver a drive open command to the PCM (power control module). The MFT control module shall open the 2-position damper prior to starting the fan, once the damper is 100% open the fan shall start. When the space temperature reaches the desired setpoint, the controller shall stop the fan and close the 2-position damper.

**Heating Mode:**  
When the space temperature drops below the heating setpoint the 2-position hot water valve shall open when the space temperature reaches setpoint the valve shall close.



**2 MODULAR INTEGRATED TERMINALS "MIT"**  
M404 | M404 NO SCALE

**SEQUENCES OF OPERATION**

**Occupied/Unoccupied Mode**

The dedicated ddc controller for the zone's MIT network will place the MIT(s) into occupied mode based on user defined schedule or unoccupied override from zone digital thermostat interface.

**Space Temperature Control**

**Cooling Mode:**  
When the space temperature rises above the current cooling setpoint (as sensed by digital thermostat), the controller shall deliver a drive open command to the PCM (power control module). The PCM shall distribute this command to each of the MITs in the zone resulting in the opening of the MIT terminal to allow an increase in conditioned airflow. When the space temperature reaches the desired setpoint, the controller shall discontinue the drive open command stopping the MIT motor actuation. The controller signal shall be tri-state and based on a PI control algorithm relating space temperature and setpoint.

**Heating Mode:**  
When the space temperature falls below the current heating setpoint (as sensed by digital thermostat), the controller shall deliver a drive closed command to the PCM (power control module). The PCM shall distribute this command to each of the MITs in the zone resulting in the closing of the MIT terminal to force a decrease in conditioned airflow. When the space temperature reaches the desired setpoint, the controller shall discontinue the drive closed command stopping the MIT motor actuation. If the space temperature does not reach the desired setpoint prior to the MIT(s) reaching minimum position, the MIT(s) shall be held at the minimum position.

**DDC I/O Schedule**

Point	Type	Description
IN-0	RS232 Input	Microset input (setpoint, space temp, override)
BO-0	Binary Output (24VAC)	Drive MIT open
BO-1	Binary Output (24VAC)	Drive MIT closed

