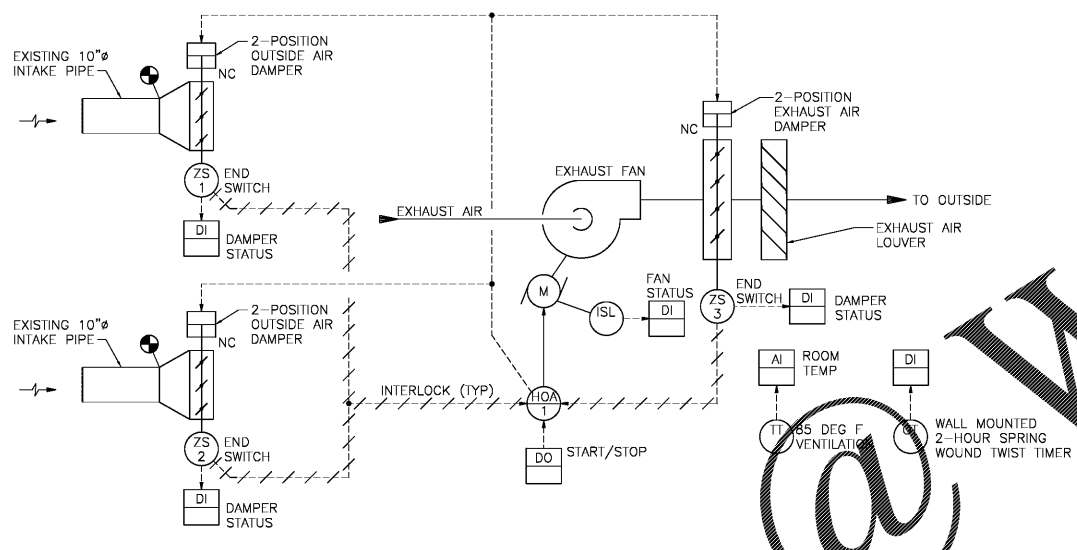


three inches = one foot
 one and one-half inches = one foot
 one inch = one foot
 three-quarters inch = one foot
 one-half inch = one foot
 three-eighths inch = one foot
 one-quarter inch = one foot
 one-eighth inch = one foot

WWW.LDILine.com



B BUILDING 174 MIOX ROOM VENTILATION CONTROL DIAGRAM
NOT TO SCALE

SEQUENCE OF OPERATION

GENERAL:
 THE VENTILATING SYSTEM SHALL BE CONTROLLED BY A DIRECT DIGITAL CONTROLLER CONNECTED TO THE EXISTING BAS. ALL SETPOINTS AND ALARM PARAMETERS SHALL BE ADJUSTABLE.

SAFETY CONTROLS AND ALARMS:
 THE FOLLOWING CONDITIONS SHALL CAUSE THE EXHAUST FAN TO SHUT DOWN AND ALL CONTROL DEVICES TO RETURN TO NORMAL CONDITIONS. THESE CONDITIONS SHALL ALARM AT THE OPERATORS WORKSTATION:

- LOSS OF FAN STATUS WHEN COMMANDED TO RUN
- EXHAUST DAMPER CLOSED
- INTAKE DAMPER CLOSED

FAN CONTROL:
 WHEN THE EXHAUST FAN IS PLACED IN THE HAND MODE AT HOA-1, THE EXHAUST AIR AND OUTSIDE AIR DAMPERS SHALL OPEN AND THE EXHAUST FAN SHALL BE ENERGIZED. WHEN THE EXHAUST AIR AND OUTSIDE AIR DAMPERS ARE PROVEN OPEN, THE EXHAUST FAN SHALL BE DE-ENERGIZED.

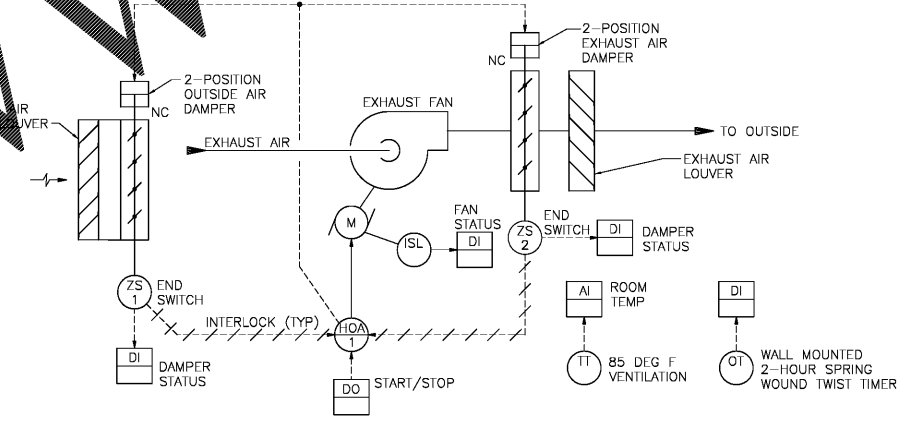
WHEN THE EXHAUST FAN IS PLACED IN THE OFF MODE AT HOA-1, THE EXHAUST FAN SHALL BE DE-ENERGIZED AND THE EXHAUST AIR AND OUTSIDE AIR DAMPERS SHALL CLOSE.

WHEN THE EXHAUST FAN IS PLACED IN THE AUTOMATIC MODE AT HOA-1, THE DDC SYSTEM SHALL OPEN THE OUTSIDE AIR AND EXHAUST AIR DAMPERS AND ONCE THE OUTSIDE AIR AND EXHAUST AIR DAMPERS ARE PROVEN OPEN, THE EXHAUST FAN SHALL BE ENERGIZED TO MAINTAIN ROOM TEMPERATURE SETPOINT OR IF SPRING WOUND TWIST TIMER IS ACTIVATED.

WHENEVER AN ATTEMPT IS MADE IN THE HAND OR AUTOMATIC MODE TO START THE EXHAUST FAN, THE EXHAUST FAN SHALL NOT START IF POSITION SWITCH ZS-1, ZS-2 OR ZS-3 INDICATES THE DAMPER IS NOT OPEN.

ADDITIONAL ALARMS:
 THE FOLLOWING ADDITIONAL CONDITIONS SHALL ALARM AT THE OPERATORS WORKSTATION:

- EXHAUST FAN IN HAND: COMMAND OFF, BUT THE STATUS IS ON
- SPACE TEMPERATURE BELOW 40 DEG F.
- SPACE TEMPERATURE 10 DEG GREATER THAN SETPOINT



C BUILDING 172 AND 173 VENTILATION CONTROL DIAGRAM
NOT TO SCALE

SEQUENCE OF OPERATION

GENERAL:
 THE VENTILATING SYSTEM SHALL BE CONTROLLED BY A DIRECT DIGITAL CONTROLLER CONNECTED TO THE EXISTING BAS. ALL SETPOINTS AND ALARM PARAMETERS SHALL BE ADJUSTABLE.

SAFETY CONTROLS AND ALARMS:
 THE FOLLOWING CONDITIONS SHALL CAUSE THE EXHAUST FAN TO SHUT DOWN AND ALL CONTROL DEVICES TO RETURN TO NORMAL CONDITIONS. THESE CONDITIONS SHALL ALARM AT THE OPERATORS WORKSTATION:

- LOSS OF FAN STATUS WHEN COMMANDED TO RUN
- EXHAUST DAMPER CLOSED
- INTAKE DAMPER CLOSED

FAN CONTROL:
 WHEN THE EXHAUST FAN IS PLACED IN THE HAND MODE AT HOA-1, THE EXHAUST AIR AND OUTSIDE AIR DAMPERS SHALL OPEN AND ONCE THE OUTSIDE AIR AND EXHAUST AIR DAMPERS ARE PROVEN OPEN, THE EXHAUST FAN SHALL BE ENERGIZED.

WHEN THE EXHAUST FAN IS PLACED IN THE OFF MODE AT HOA-1, THE EXHAUST FAN SHALL BE DE-ENERGIZED AND THE EXHAUST AIR AND OUTSIDE AIR DAMPER SHALL CLOSE.

WHEN THE EXHAUST FAN IS PLACED IN THE AUTOMATIC MODE AT HOA-1, THE DDC SYSTEM SHALL OPEN THE OUTSIDE AIR AND EXHAUST AIR DAMPER AND ONCE THE OUTSIDE AIR AND EXHAUST AIR DAMPERS ARE PROVEN OPEN, THE EXHAUST FAN SHALL BE ENERGIZED TO MAINTAIN ROOM TEMPERATURE SETPOINT OR IF SPRING WOUND TWIST TIMER IS ACTIVATED.

WHENEVER AN ATTEMPT IS MADE IN THE HAND OR AUTOMATIC MODE TO START THE EXHAUST FAN, THE EXHAUST FAN SHALL NOT START IF POSITION SWITCH ZS-1 OR ZS-2 INDICATES THE DAMPER IS NOT OPEN.

ADDITIONAL ALARMS:
 THE FOLLOWING ADDITIONAL CONDITIONS SHALL ALARM AT THE OPERATORS WORKSTATION:

- EXHAUST FAN IN HAND: COMMAND OFF, BUT THE STATUS IS ON
- SPACE TEMPERATURE BELOW 40 DEG F.
- SPACE TEMPERATURE 10 DEG GREATER THAN SETPOINT

Order Plans

	 Atrix, plc 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 Phone: 828.315.9962 Fax: 828.315.9964 www.atrigrp.com	 WileyWilson 127 Nantowite Drive Lynchburg, VA 24502 Phone: 434.947.1901 www.wileywilson.com	 MICHAEL W. GEHL, P.E. Lic. No. 24298 4/22/2017 PROFESSIONAL ENGINEER	Approved: Energy Engineer <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> CONSTRUCTION DOCUMENTS </div>	Approved: Safety Manager Approved: Infection Control Officer Approved: GEMS Coordinator	Approved: Service Chief Approved: Chief of Staff Approved: Associate Director	Drawing Title M-701 BLDG 172, 173 & 174 CONTROL DIAGRAMS	Project Title RENOVATE FOR WATER QUALITY	Date 04/28/2017	Project No. 658-15-101	Approved: Chief of Facility Management Svc. Building Number 172, 173 & 174	Checked MJG	Drawn JFC	DRAWING SET 2592	Location VA MEDICAL CENTER, SALEM, VA 24153	Dwg. 136 Of 155	Veterans Affairs
--	--	---	---	--	---	---	---	--	--------------------	---------------------------	--	----------------	--------------	----------------------------	--	-----------------	-------------------------