

**NOT FOR
CONSTRUCTION**

No.	Description	Date
1	DD - GMP	2/19/21-03

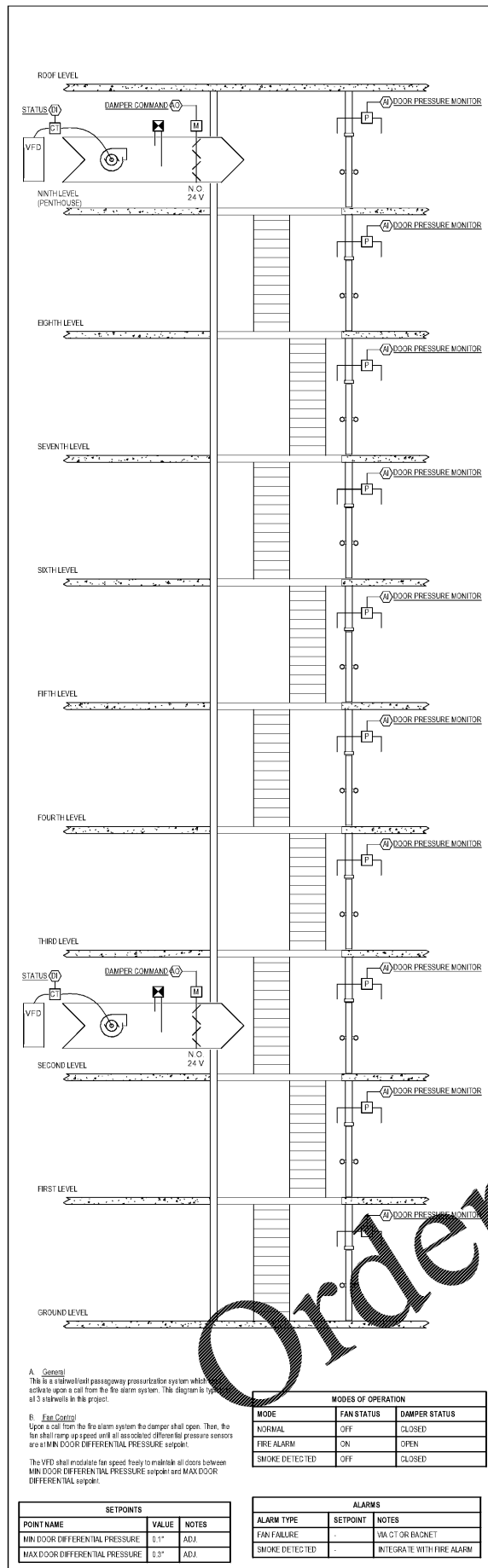
ABBREVIATIONS

ADJ.	USER ADJUSTABLE SETPOINT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
BAS	BUILDING AUTOMATION SYSTEM
CFM	CUBIC FEET PER MINUTE
DAT	DISCHARGE AIR TEMPERATURE
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DX	DIRECT EXPANSION
FLA	FULL LOAD AMPS
GPM	GALLONS PER MINUTE
KW	KILOWATTS
KWH	KILOWATT-HOURS
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
SP	SETPOINT
TAB	TEST AND BALANCE
VFD	VARIABLE FREQUENCY DRIVE

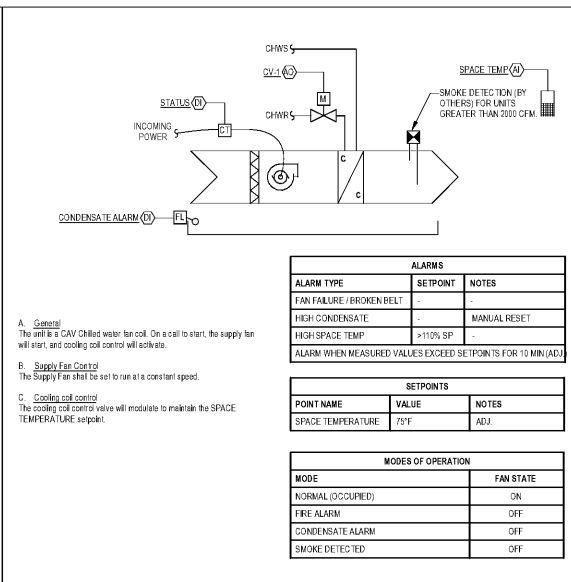
CONTROLS SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	PREFILTER		AIRFLOW MEASURING STATION
	FINAL FILTER		SMOKE DETECTOR
	CHILLED WATER COIL		FREEZE
	DX COIL		PRESSURE TRANSDUCER
	HOT WATER COIL		VARIABLE FREQUENCY DRIVE
	ELECTRIC HEAT COIL		CURRENT TRANSDUCER
	BELT DRIVE FAN		INTERLOCK RELAY
	DIRECT DRIVE FAN		FLOAT SWITCH
	FAN ARRAY (EXACT QTY NOTED)		END SWITCH (POSITION INDICATOR)
	MOTORIZED DAMPER		MOTOR OPERATED VALVE (2-WAY)
	HUMIDIFIER DISPERSION TUBE		MOTOR OPERATED VALVE (3-WAY)
	UV LIGHT ARRAY		THERMOWELL TEMPERATURE SENSOR
	TEMPERATURE SENSOR (AVERAGING)		FLOW METER
	TEMPERATURE SENSOR (PROBE)		FLOW METER
	HUMIDITY SENSOR		
	CARBON DIOXIDE SENSOR		

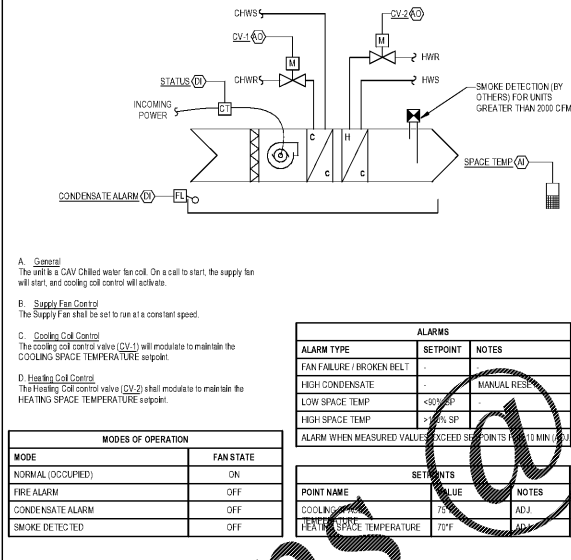
NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT



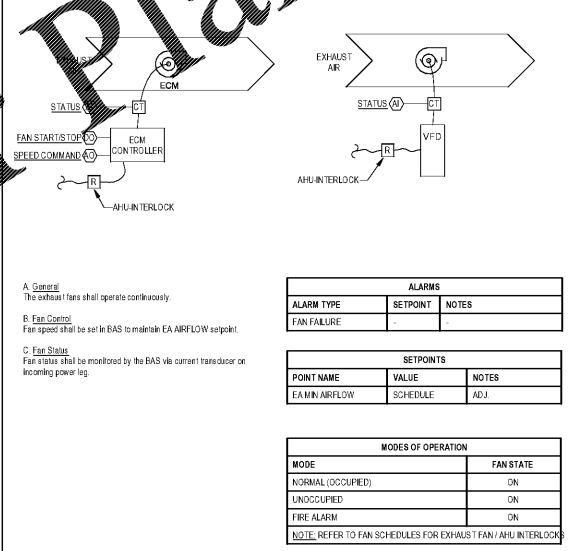
STAIR PRESSURIZATION
No Scale



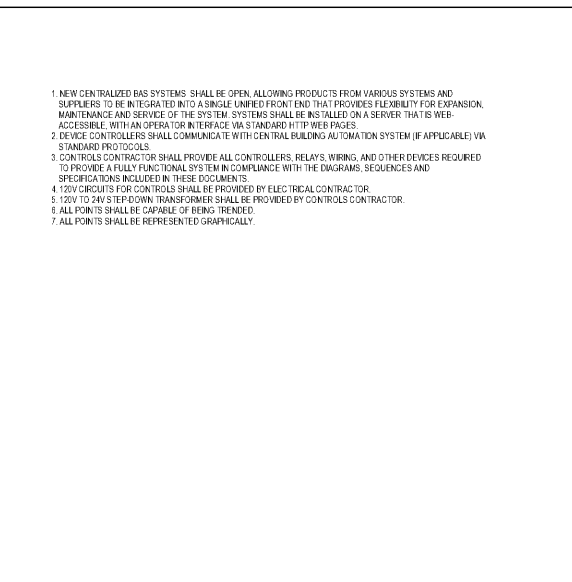
CHW FAN COIL
No Scale



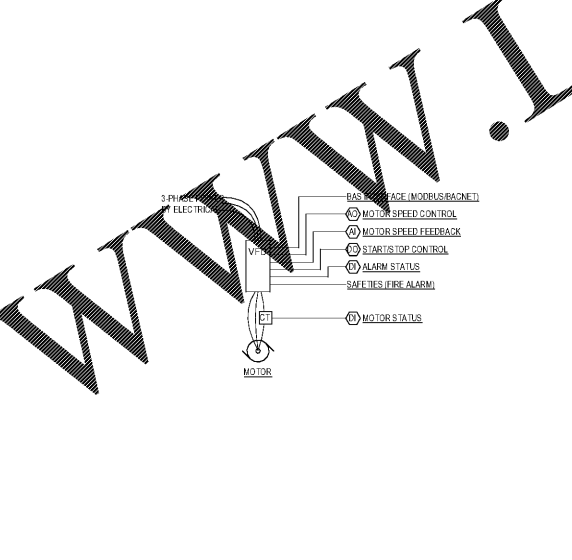
CHW/HW FAN COIL
No Scale



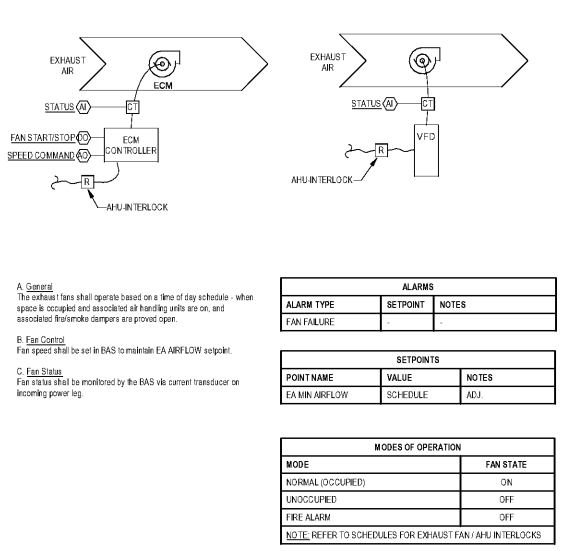
ISOLATION/FUME EXHAUST
No Scale



GENERAL EXHAUST
No Scale



VARIABLE FREQUENCY DRIVE
No Scale



GENERAL EXHAUST
No Scale

1. NEW CENTRALIZED GAS SYSTEMS SHALL BE OPEN, ALLOWING PRODUCTS FROM VARIOUS SYSTEMS AND SUPPLIERS TO BE INTEGRATED INTO A SINGLE UNIFIED FRONT END THAT PROVIDES FLEXIBILITY FOR EXPANSION, MAINTENANCE AND SERVICE OF THE SYSTEM. SYSTEMS SHALL BE INSTALLED ON A SERVER THAT IS WEB-ACCESSIBLE, WITH AN OPERATOR INTERFACE VIA STANDARD HTTP WEB PAGES.
2. DEVICE CONTROLLERS SHALL COMMUNICATE WITH CENTRAL BUILDING AUTOMATION SYSTEM (IF APPLICABLE) VIA STANDARD PROTOCOLS.
3. CONTROLS CONTRACTOR SHALL PROVIDE ALL CONTROLLERS, RELAYS, WIRING, AND OTHER DEVICES REQUIRED TO PROVIDE A FULLY FUNCTIONAL SYSTEM IN COMPLIANCE WITH THE DRAWINGS, SEQUENCES AND SPECIFICATIONS INCLUDED IN THESE DOCUMENTS.
4. 120V CIRCUITS FOR CONTROLS SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
5. 120V TO 24V STEP-DOWN TRANSFORMER SHALL BE PROVIDED BY CONTROLS CONTRACTOR.
6. ALL POINTS SHALL BE CAPABLE OF BEING TRENDED.
7. ALL POINTS SHALL BE REPRESENTED GRAPHICALLY.

GENERAL NOTES
No Scale

VARIABLE FREQUENCY DRIVE
No Scale

GENERAL EXHAUST
No Scale

ALARMS		
ALARM TYPE	SETPONT	NOTES
FAN FAILURE / BROKEN BELT	-	MANUAL RESET
HIGH CONDENSATE	-	MANUAL RESET
HIGH SPACE TEMP	>110% SP	-
ALARM WHEN MEASURED VALUES EXCEED SETPOINTS FOR 10 MIN (ADJ.)		

SETPONTS		
POINT NAME	VALUE	NOTES
SPACE TEMPERATURE	73°F	ADJ.

MODES OF OPERATION	
MODE	FAN STATE
NORMAL (OCCUPIED)	ON
FIRE ALARM	OFF
CONDENSATE ALARM	OFF
SMOKE DETECTED	OFF

ALARMS		
ALARM TYPE	SETPONT	NOTES
FAN FAILURE / BROKEN BELT	-	MANUAL RESET
HIGH CONDENSATE	<50% SP	-
LOW SPACE TEMP	-	-
HIGH SPACE TEMP	> 75° SP	-
ALARM WHEN MEASURED VALUES EXCEED SETPOINTS FOR 10 MIN (ADJ.)		

SETPONTS		
POINT NAME	VALUE	NOTES
COOLING SPACE TEMPERATURE	73°F	ADJ.
HEATING SPACE TEMPERATURE	73°F	ADJ.

MODES OF OPERATION	
MODE	FAN STATE
NORMAL (OCCUPIED)	ON
FIRE ALARM	OFF
CONDENSATE ALARM	OFF
SMOKE DETECTED	OFF

ALARMS		
ALARM TYPE	SETPONT	NOTES
FAN FAILURE	-	-

SETPONTS		
POINT NAME	VALUE	NOTES
EXHAUST AIRFLOW	SCHEDULE	ADJ.

MODES OF OPERATION	
MODE	FAN STATE
NORMAL (OCCUPIED)	ON
UNOCCUPIED	ON
FIRE ALARM	ON

ALARMS		
ALARM TYPE	SETPONT	NOTES
FAN FAILURE	-	-

SETPONTS		
POINT NAME	VALUE	NOTES
EXHAUST AIRFLOW	SCHEDULE	ADJ.

MODES OF OPERATION	
MODE	FAN STATE
NORMAL (OCCUPIED)	ON
UNOCCUPIED	OFF
FIRE ALARM	OFF

NOTE: REFER TO SCHEDULES FOR EXHAUST FAN / AHU INTERLOCKS