



COOPER CARRY
THE CENTER FOR CONNECTIVE ARCHITECTURE

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02/18/2020 COOPER CARRY

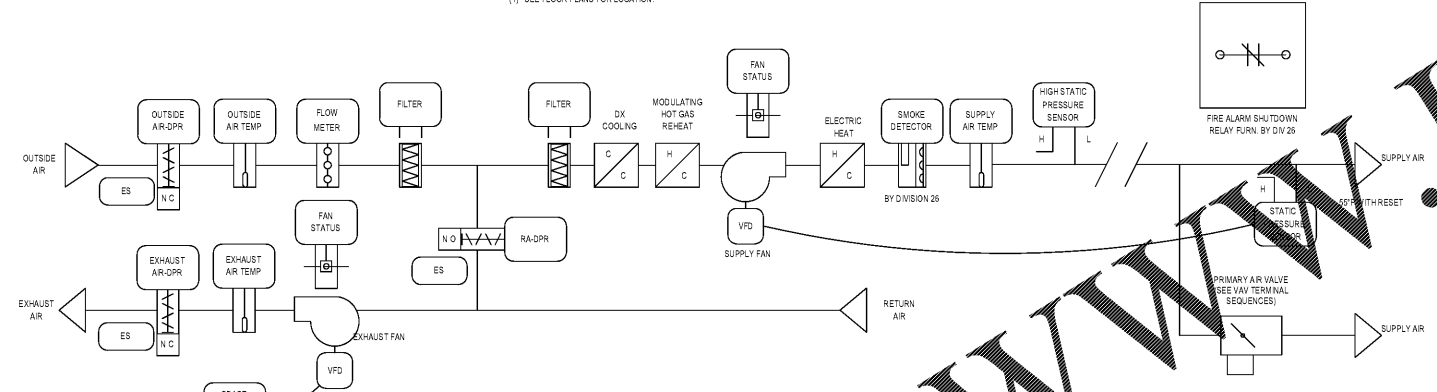
SCOPE DOCUMENTS
The Contract Documents issued for Conceptual Design, Schematic Design, Design Development, Partial Construction Documents or Other Issuance up to Issued for Construction are intended to be at that level of development and as such, may be neither complete nor coordinated. The [Construction Manager, Contractor, Design/Builder] is responsible for complete and coordinated pricing [and execution] of the Work, and shall include items necessary for the proper execution and completion of the Work, as shown, specified, reasonably inferred or required for a complete Project. Work of omissions, design, systems, assemblies, components and materials shall comply with national, state and local code requirements. The [Construction Manager, Contractor, Design/Builder] shall inform the Owner and Architect, in timely fashion, of any discovered omissions, inconsistencies or errors in the Contract Documents.

ISSUANCES
No. Drawing Issue Description Date

MULTI-ZONE VAV ROOFTOP UNIT POINTS LIST

INPUT/OUTPUT SUMMARY	OUTPUTS				INPUTS				SOFTWARE				NOTES		
	DIGITAL	ANALOG	DIGITAL	ANALOG	ALARM	ENERGY MANAGEMENT	ALARM	ENERGY MANAGEMENT							
VAV AHU															
SPACE TEMPERATURE SENSOR															
SPACE HUMIDITY SENSOR															
SPACE CO2 SENSOR															
SPACE STATIC PRESSURE															
SUPPLY AIR TEMPERATURE															
OCCUPIED/UNOCCUPIED															
SUPPLY AIR FAN (VFD)	X														
SUPPLY AIR FAN STATUS															
RELIEF AIR FAN	X														
RELIEF AIR FAN STATUS															
COMPRESSOR STAGING (VARIES)	X														
ELECTRIC HEAT															
DEHUMIDIFICATION CYCLE (HOT GAS)	X														
OSA AIRFLOW															
SUPPLY DUCT STATIC PRESSURE															(1)
HIGH STATIC PRESSURE															
OSA INTAKE TEMPERATURE															(1)

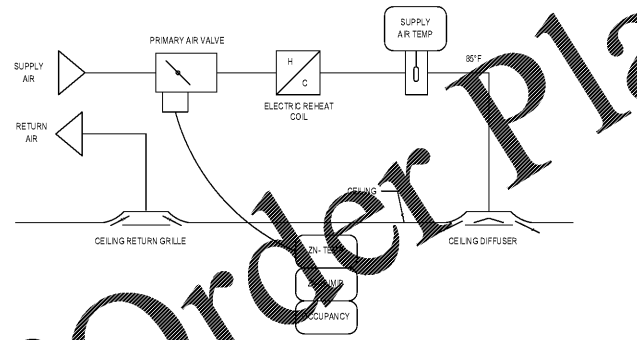
(1) SEE FLOOR PLANS FOR LOCATION



1 MULTI-ZONE VAV AIR HANDLING UNIT CONTROL SCHEMATIC
SCALE: NO SCALE

VAV/PIU TERMINALS AIR POINTS LIST

INPUT/OUTPUT SUMMARY	OUTPUTS				INPUTS				SOFTWARE				NOTES		
	DIGITAL	ANALOG	DIGITAL	ANALOG	ALARM	ENERGY MANAGEMENT	ALARM	ENERGY MANAGEMENT							
VARIABLE AIR VOLUME TERMINAL UNITS															
PRIMARY AIR VALVE															
SPACE TEMPERATURE															
SPACE HUMIDITY															
OCCUPANCY OVERRIDE															
SUPPLY TEMPERATURE															
ELECTRIC REHEAT COIL															



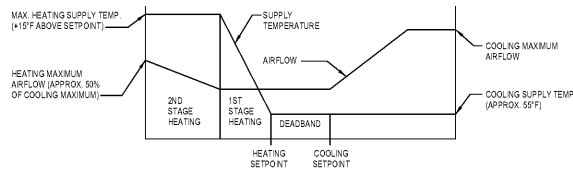
2 VARIABLE VOLUME TERMINAL UNIT SCHEMATIC
SCALE: NO SCALE

CONTROL SEQUENCES - VAV SPLIT SYSTEM AHU

AIR HANDLING UNIT: AHU-1A/C/U/A
The AHU is a variable volume split system unit with DX cooling and electric heating. The unit is controlled by the DDC system using electric actuation and is scheduled for automatic operation on a set of day bases. Occupied, Unoccupied and Safety modes are as follows:
A. Occupied
a. SCHEDULE
b. STARTUP
c. AHU FAN SPEED CONTROL
d. AHU SUPPLY AIR TEMPERATURE CONTROL
e. AHU MONITORING POINTS
B. Unoccupied
C. Safety

CONTROL SEQUENCES - VAV TERMINALS

VARIABLE AIR VOLUME TERMINAL UNITS
A. Units shall be enabled/disabled by the DDC system based on a time schedule. Upon receipt of an enable signal for an RTU, the air valves in all units served by the enabled RTU shall modulate to a 60% open position. After a 1 minute (adjustable) delay from the start of the respective RTU supply fan, the air valves shall revert from 60% open to active control by the DDC system as described below.
B. Units shall provide airflow as scheduled.
C. Units shall modulate airflow based on room temperature sensors to maintain a cooling setpoint of 79°F (adjustable) and a heating setpoint of 70°F (adjustable).
D. For zones with RTU terminals for heating, first stage heating shall be operation of fan with plenum air followed by energizing SCR controlled electric heat. Limit supply temperature to 95°F (adjustable). Primary airflow shall be at minimum during heating.
E. If the terminal unit operation based on a combination temperature and carbon dioxide sensor, the following sequence shall also occur:
a. If space temperature is 95°F or above (adjustable), upon a rise in carbon dioxide concentration as sensed by the space CO2 sensor above the setpoint of 700 ppm (adjustable) relative to outdoor air concentration, the air valve shall modulate open.
b. If space temperature is below 72°F (adjustable), upon a rise in space carbon dioxide concentration, terminal unit shall signal the air handling unit to modulate open the outside air damper to maintain the reported carbon dioxide concentration (see RTU sequence).
c. The DDC system shall monitor and trend log data from the space carbon dioxide sensors. An alarm shall be initiated if space carbon concentration exceeds the concentration setpoint for 45 minutes (adjustable).
F. Supply air temperature shall be monitored by the DDC system.
G. Primary airflow shall be monitored by the DDC system.
H. During Unoccupied hours, the cooling setpoint shall be 80°F (adjustable) and 55°F (adjustable) for heating if applicable.
I. If override button on the space sensor is pushed during Unoccupied hours, the associated terminal unit shall revert to the Occupied mode, maintaining space temperature/carbon dioxide concentrations for a two hour time period (adjustable). The associated air handling unit shall only be energized if fan (4) associated events buttons are activated.



4 HEATING/COOLING AUTOCHANGE
SCALE: NO SCALE

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FTE - 450
EXISTING IU - 38
PROPOSED IU - 33
BARACK & MICHELLE OBAMA ACADEMY



970 Martin St SE, Atlanta, GA 30315
ATLANTA PUBLIC SCHOOLS

HVAC POINTS LIST CONTROL SEQUENCES

THW
SPB
SPB
SPB

CC #201715 - JSA # 19J543
03/16/20
Date

M6-00

PROJECT NUMBER: CC # 201715 - JSA # 19J543 PROJECT NAME: BARACK & MICHELLE OBAMA ACADEMY
SHEET NUMBER: M6-00 - HVAC POINTS LIST CONTROL SEQUENCES
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