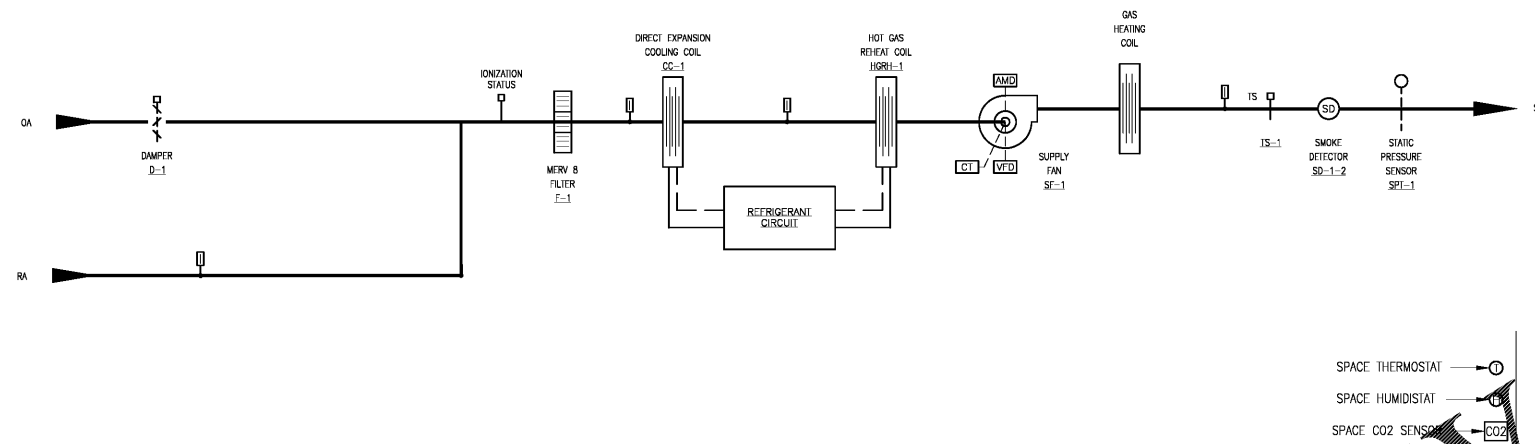


ROOF TOP UNIT SEQUENCE OF OPERATION:
 *REFER TO EXISTING SEQUENCE AND OWNER STANDARDS.



ROOF TOP UNIT SCHEMATIC DIAGRAM

MONITOR/CONTROL POINTS	BAS INPUT/OUTPUT POINT SCOPE				MONITOR/CONTROL POINTS			
	AI - ANALOG INPUT	AO - ANALOG OUTPUT	DI - DIGITAL INPUT	DO - DIGITAL OUTPUT	AI - ANALOG INPUT	AO - ANALOG OUTPUT	DI - DIGITAL INPUT	DO - DIGITAL OUTPUT
OUTSIDE AIR TEMPERATURE	X				TYPICAL DUCT HEATER ZONE TEMPERATURE			X
OUTSIDE AIR HUMIDITY	X				HEAT START/STOP(s)			X
ELECTRIC UTILITY METER (pulse from utility)		X			DISCHARGE AIR TEMPERATURE			X
ELECTRIC SWITCHGEAR POWER METER		X		X	WATER TREATMENT			
ELECTRIC SUBMETER (PULSE)		X			CT LOOP FLOW STATUS	X		
GAS METER (pulse from utility)		X			BLEED VALVE OPEN/CLOSE		X	
GENERATOR STATUS (running/standby)		X			INHIBITOR PUMP START/STOP		X	
ALARM OPERATING STATUS (variable)		X			BIOCIDE PUMP START/STOP		X	
FIRE ALARM STATUS (normal/alarm)		X			BIOCIDE PUMP 2 START/STOP		X	
TROUBLE		X			TOWER MAKEUP WATER METER		X	
MAIN POWER PHASE ALARM		X			HEAT REHEAT WATER METER		X	
SECURITY ALARM STATUS (armed/disarmed)		X			WATER SOFTENING PUMP		X	
ALARM		X			ZONE TEMPERATURE		X	
PREFEED CHILLER (PRIMARY)		X			ZONE HUMIDITY (if applicable)		X	
CHILLER		X			DISCHARGE AIR TEMPERATURE		X	
PREFEED PHASOR		X			SUPPLY FAN START/STOP		X	
COMPLIANCE PHASOR		X			COMPRESSOR START/STOP		X	
CHILLER COOLER (BACKUP)		X			REVERSING VALVE OPEN/CLOSE		X	
CHILLER COOLER		X			DEHUMIDIFICATION START/STOP		X	
TY. EXHAUST FAN		X			SOLENOID VALVE OPEN/CLOSE		X	
ZONE TEMP (for fans for temp control)		X			UNIT ALARM SIGNAL		X	
FAN START/STOP		X			IONIZATION UNIT STATUS		X	
FAN STATUS		X			MO-ION SENSOR (if applicable)		X	
TY. VVT ROOF-TOP UNIT		X			SMOKE DAMPER (tie into fan start/stop)		X	
SYSTEM SPACE HUMIDITY		X						
DISCHARGE AIR TEMPERATURE		X						
DUCT PRESSURE SENSOR		X						
SUPPLY FAN START/STOP		X						
SUPPLY FAN STATUS		X						
BYPASS DAMPER		X						
COMPRESSOR START/STOP		X						
GAS HEAT START/STOP		X						
DEHUMIDIFICATION START/STOP		X						
UNIT ALARM SIGNAL		X						
OUTSIDE AIR DAMPER SIGNAL (AMWU)		X						
TY. VVT TERMINAL UNIT		X						
BYPASS DAMPER		X						
EACH ZONE DAMPER		X						
EACH ZONE TEMPERATURE		X						
EACH DISCHARGE AIR TEMPERATURE		X						
EACH ZONE VELOCITY		X						
FAN START/STOP (for PHU)		X						
FAN STATUS (for PHU)		X						
HEAT START/STOP (for PHU)		X						
TY. SZ ROOF-TOP UNIT		X						
SPACE TEMPERATURE		X						
SPACE HUMIDITY		X						
SPACE CO ₂ LEVEL (if applicable)		X						
DISCHARGE AIR TEMPERATURE		X						
TY. P-TRAP OR FLOOR DRAIN		X						
SOLENOID VALVE OPEN/CLOSE		X						
ENTHALPY WHEEL START/STOP		X						
ENTHALPY WHEEL STATUS		X						
HEAT START/STOP(s)		X						
COMPRESSOR START/STOP(s)		X						
VARIABLE COMPRESSOR CONTROL		X						
HOT GAS REHEAT START/STOP		X						
HOT GAS REHEAT CONTROL		X						
TY. P-TRAP OR FLOOR DRAIN		X						
CHILLER START/STOP		X						
CHILLER DEMAND LIMIT SETPOINT		X						
CHILLED WATER RESET		X						
CHILLED WATER SUPPLY TEMPERATURE		X						
CHILLED WATER RETURN TEMPERATURE		X						
CHILLED WATER PUMP SS		X						
CHILLED WATER PUMP STATUS		X						
CHILLED WATER PUMP SPEED		X						

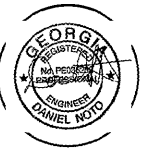
GENERAL NOTES:
 A. PROVIDE MULTIPLE STAGES OF CONTROL FOR UNITS WITH MULTIPLE STEPS OF CAPACITY.
 B. WIRE THRU SMOKE DETECTORS FOR UNITS WITH OVER 2000 CFM THAT SERVE CORRIDORS.
 C. SMOKE DAMPERS WHEN SMOKE IS PRESENT.
 D. THE 10 POINT GRID TAKES PRIORITY WITH ANY SCOPE DISCREPANCIES.
 E. INCLUDE BATTERY BACKUP ON MAIN PANEL.

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FULTON COUNTY SCHOOL SYSTEM
EVOLINE C. WEST ELEMENTARY SCHOOL - RENOVATIONS
 7040 RIVERTOWN RD
 FARMBURG, GA 30213

PROJECT NO:	18048.00
50% CD	08/07/2018
90% CD - re-submittal	11/20/2018
90% CD	10/04/2018
CD PERMIT SET	11/19/2018
CD BID SET	12/20/2018



MECHANICAL SCHEMATICS
M301

SHEET NUMBER
M301