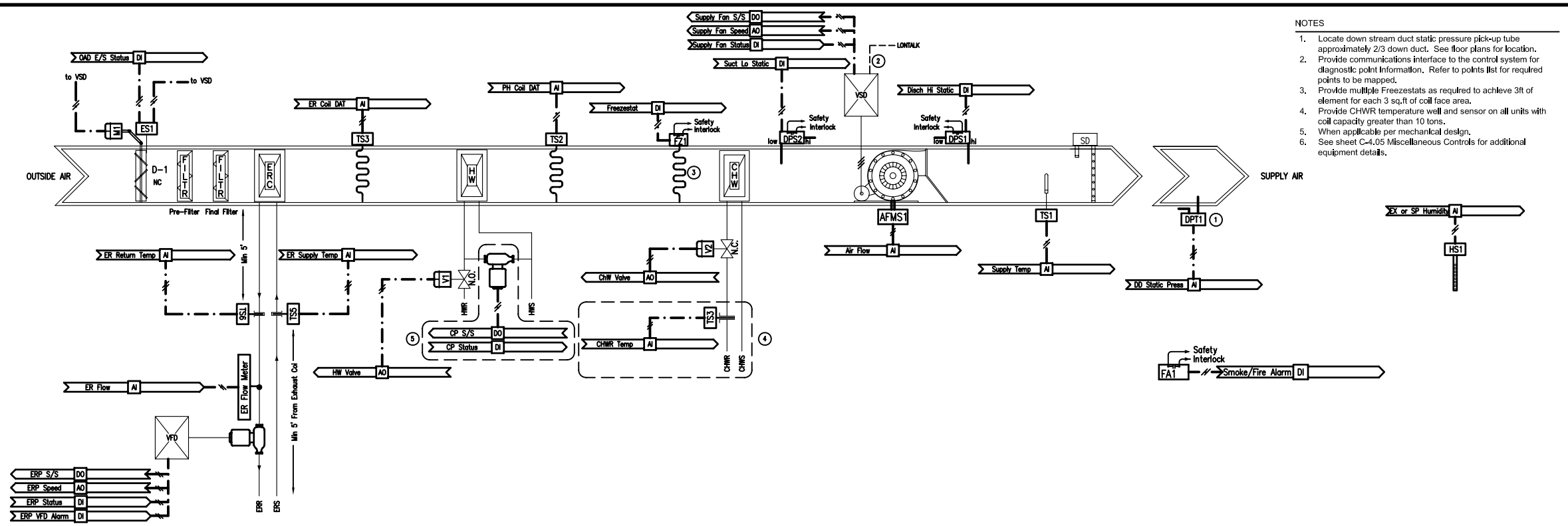
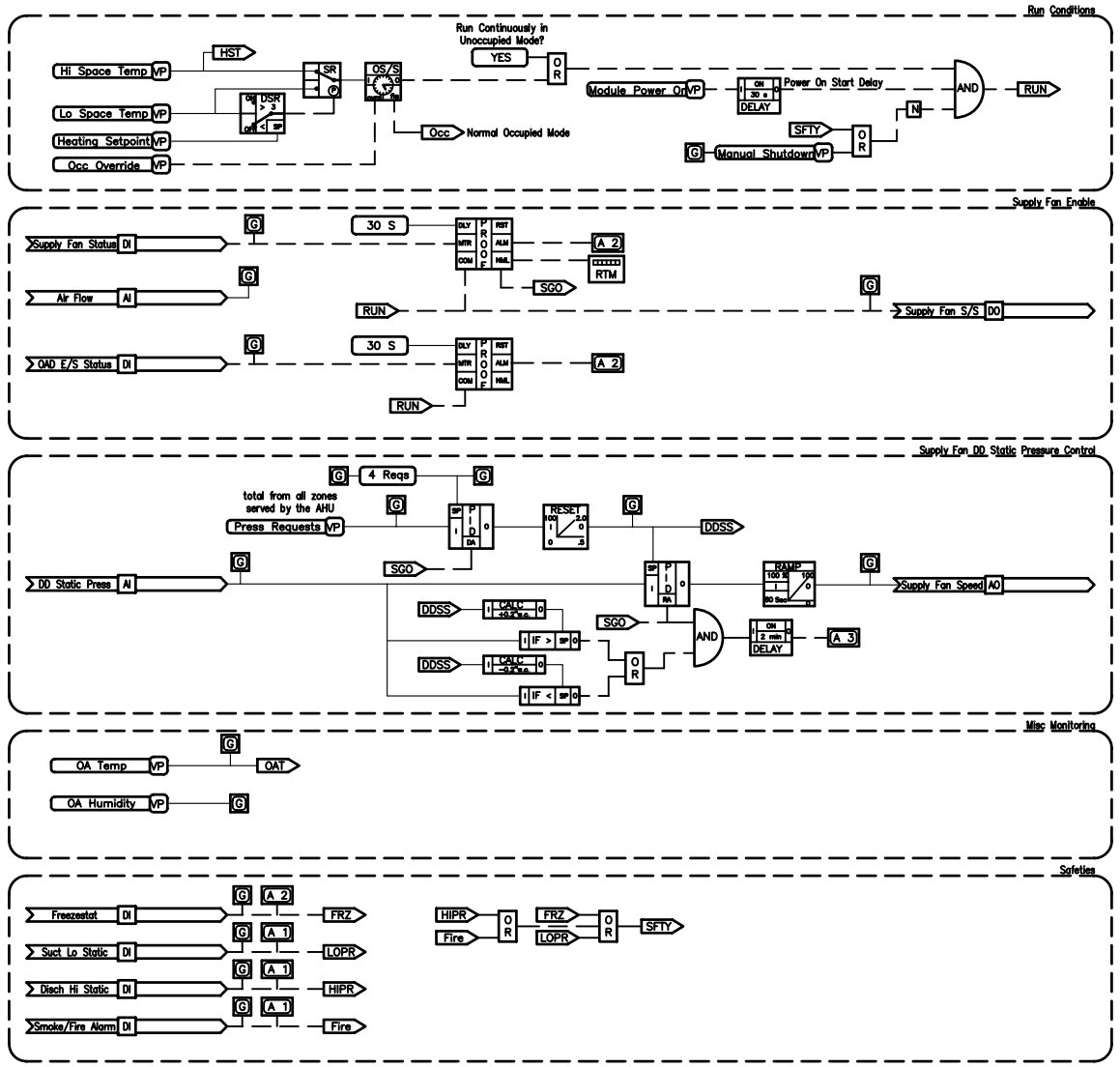


NOTES

1. Locate down stream duct static pressure pick-up tube approximately 2/3 down duct. See floor plans for location.
2. Provide communications interface to the control system for diagnostic point information. Refer to points list for required points to be mapped.
3. Provide multiple Freezestats as required to achieve 3ft of element for each 3 sq.ft of coil face area.
4. Provide CHWR temperature well and sensor on all units with coil capacity greater than 10 tons.
5. When applicable per mechanical design.
6. See sheet C-4.05 Miscellaneous Controls for additional equipment details.

100% OA VAV AH WITH PREHEAT & CHW COIL



Software Logic Diagram

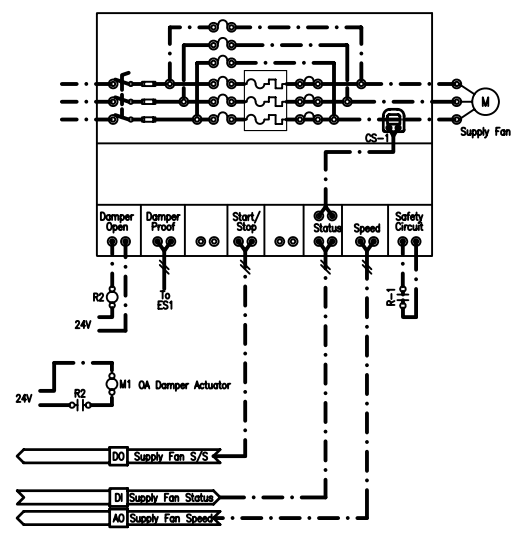
POINTS LIST

ADDRESS	POINT DESCRIPTOR	POINT TYPE DI	AI	DO	AO	VP	REMARKS
	Supply Fan S/S			•			
	Supply Fan Status	•					
	Supply Fan Speed				•		
	DD Stat Press			•			
	Supply Temp			•			
	Air Flow			•			
	Disch Hi Static	•					
	Suct Lo Static	•					
	PH Coil DAT		•				
	Freezestat	•					
	OAD E/S Status	•					
	ER Coil DAT		•				
	CHW Valve				•		
	HW Valve				•		
	Circ Pump S/S			•			See Note 5
	Circ Pump Status	•					See Note 5
	Smoke/Fire Alarm	•					
	VFD Alarm/Fault					•	Interface Point
	VFD Fault Code					•	Interface Point
	VFD Spd Feedback					•	Interface Point
	VFD KW					•	Interface Point
	VFD In Bypass					•	Interface Point
	ER Pump S/S					•	
	ER Pump Status				•		
	ERP VFD Alarm				•		
	ERP Speed						•
	ER Supply Temp				•		
	ER Return Temp				•		
	ER Flow				•		
	ChW Return Temp				•		
	EX or SP Humidity				•		

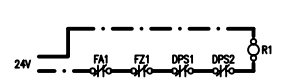
LOGIC VARIABLES

BINARY	ANALOG	DESCRIPTION
Occ		ON WHEN OCCUPIED MODE ACTIVE
RUN		ON WHEN UNIT COMMANDED TO START
SGO		ON WHEN SUPPLY FAN ENERGIZED AND STATUS PROVEN
HIPR		ON WHEN HIGH STATIC PRESSURE SWITCH IS IN ALARM
LOPR		ON WHEN LOW STATIC PRESSURE SWITCH IS IN ALARM
FRZ		ON WHEN FREEZESTAT IS IN ALARM
Fire		ON WHEN FIRE ALARM IS ACTIVE
SFTY		ON WHEN ANY UNIT SHUTDOWN SAFETY IS ON
	HST	VARIABLE CALCULATED VALUE OF HIGHEST SPACE TEMPERATURE
	OAT	VARIABLE VALUE OF OUTSIDE AIR TEMPERATURE
	SAT	VARIABLE VALUE OF SUPPLY AIR TEMPERATURE
	PHT	VARIABLE VALUE OF PREHEAT AIR TEMPERATURE
	CPCT	VARIABLE CALCULATED VALUE OF CHW VALVE POSITION
	HPCT	VARIABLE CALCULATED VALUE OF HW VALVE POSITION
	DDSS	VARIABLE CALCULATED VALUE OF DOWN DUCT STATIC PRESSURE SETPOINT
	ERPS	VARIABLE CALCULATED VALUE OF ENERGY RECOVERY PUMP SPEED
ERHT		ON WHEN ENERGY RECOVERY SYSTEM ENABLED IN HEATING MODE
ERCL		ON WHEN ENERGY RECOVERY SYSTEM ENABLED IN COOLING MODE

ELECTRIC LADDER DIAGRAMS



SUPPLY FAN VSD



SAFETY INTERLOCK DETAIL

REVISIONS

NO.	DESCRIPTION	DATE

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

The University of North Carolina
Chapel Hill, North Carolina

Standard Control Drawings

Eng	RR
Drawn	BMV
Chkd	
Appd	
Issued	06/06/2010
Job No.	
Scale	N/A
Proj Code	

REV.5

100% OA VAV AH WITH PREHEAT & CHW COIL

00 OF 00
SHEET NUMBER

C-1.06
DWG NUMBER