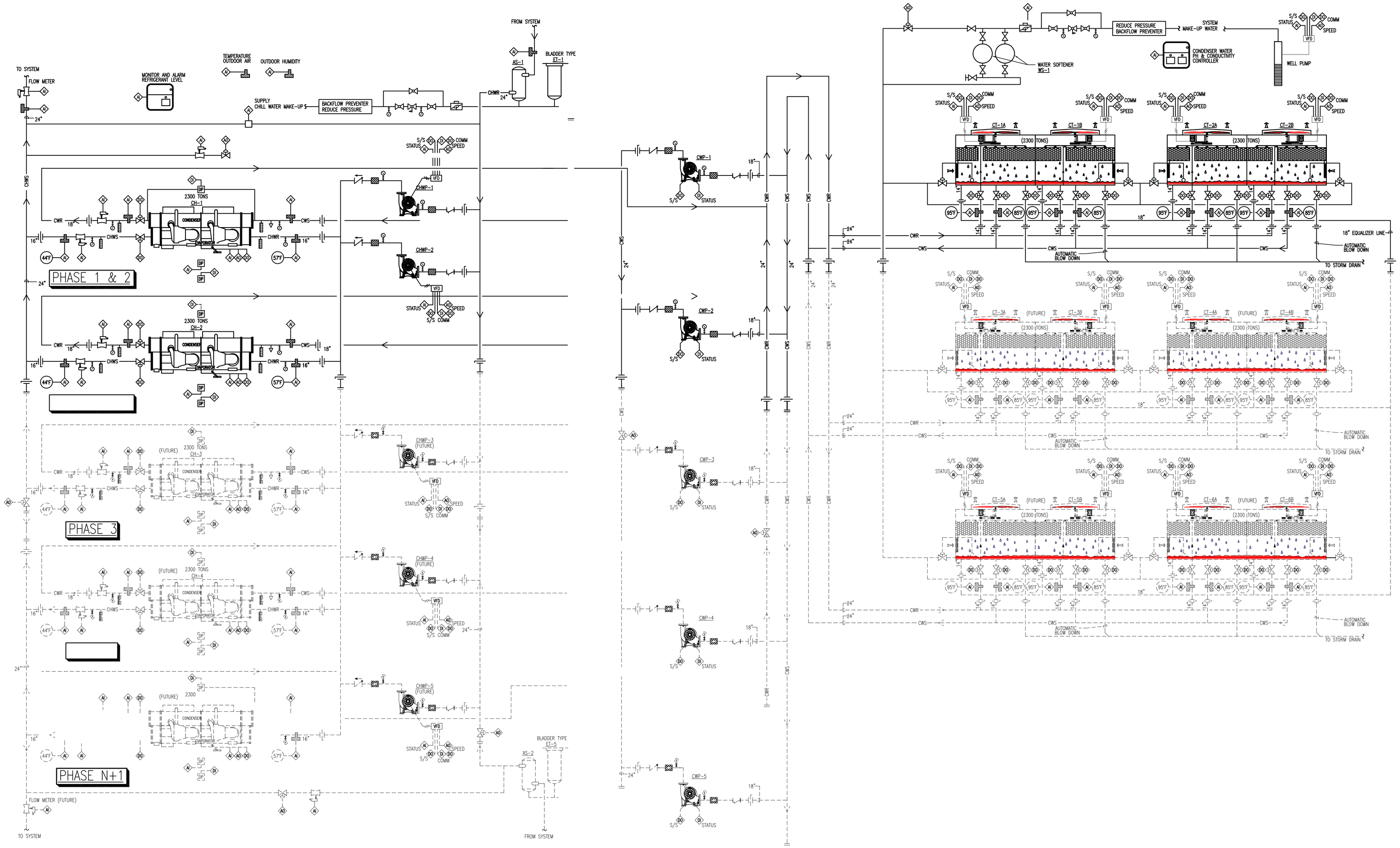
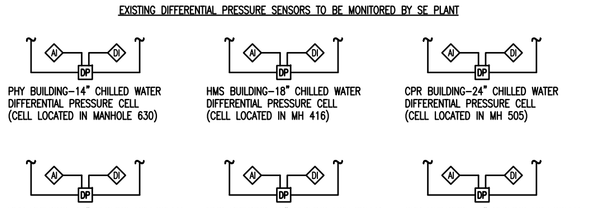


EXISTING DIFFERENTIAL PRESSURE SENSORS TO BE MONITORED BY SE PLANT



CONTROLS ONE-LINE DIAGRAM

NOT TO SCALE

CONTROL POINT LIST
S.E. CHILLER PLANT

INPUTS

DIGITAL INPUTS	DESCRIPTION	IP ADDRESS
DI	CONDENSER WATER DIFFERENTIAL PRESSSURE (AT CHILLER)	
DI	CONDENSER WATER PUMP MOTOR STATUS ON/OFF	
DI	CHILLED WATER DIFFERENTIAL PRESSSURE (AT CHILLER)	
DI	SYSTEM CHILL WATER DIFFERENTIAL PRESSURE	
DI	VFD COMMUNICATIONS	
DI	PHY 14" CHW DIFFERENTIAL PRESSURE	
DI	PHY 14" HHW DIFFERENTIAL PRESSURE	
DI	HMS 18" CHW DIFFERENTIAL PRESSURE	
DI	HMS 18" HHW DIFFERENTIAL PRESSURE	
DI	CPR 24" CHW DIFFERENTIAL PRESSURE	
DI	CPR 24" HHW DIFFERENTIAL PRESSURE	

ANALOG INPUTS	DESCRIPTION	IP ADDRESS
AI	CHILLED WATER DIFFERENTIAL PRESSSURE (AT CHILLER)	
AI	CHILLED WATER SUPPLY TEMPERATURE	
AI	CHILLED WATER SUPPLY FLOW	
AI	CONDENSER WATER RETURN FLOW	
AI	CHILLER CONTROL PANEL	
AI	CHILLED WATER SUPPLY FLOW OUT TO SYSTEM	
AI	CHILLED WATER SUPPLY TEMPERATURE OUT TO LOOP	
AI	CHILLED WATER RETURN TEMPERATURE FROM LOOP	
AI	CHILLED WATER SUPPLY FLOW OUT TO LOOP (FUTURE)	
AI	CONDENSER WATER SUPPLY TEMPERATURE (AT CHILLER)	
AI	CONDENSER WATER RETURN TEMPERATURE (AT CHILLER)	
AI	CONDENSER WATER SUPPLY TEMPERATURE (AT COOLING TOWER)	
AI	CONDENSER WATER RETURN TEMPERATURE (AT COOLING TOWER)	
AI	CHILLED WATER BYPASS FLOW METER	
AI	CHILLED WATER PUMP MOTOR ROTATIONAL STATUS	
AI	COOLING TOWER FAN MOTOR ROTATIONAL STATUS	
AI	CONDENSER WATER MAKE-UP FLOW	
AI	SYSTEM CHILL WATER DIFFERENTIAL PRESSURE	
AI	CONDENSER WATER TREATMENT CONTROLLER	
AI	REFRIGERANT CONCENTRATION MONITOR AND ALARM	
AI	OUTDOOR AIR HUMIDITY	
AI	OUTDOOR AIR TEMPERATURE	
AI	PHY 14" CHW DIFFERENTIAL PRESSURE	
AI	PHY 14" HHW DIFFERENTIAL PRESSURE	
AI	HMS 18" CHW DIFFERENTIAL PRESSURE	
AI	HMS 18" HHW DIFFERENTIAL PRESSURE	
AI	CPR 24" CHW DIFFERENTIAL PRESSURE	
AI	CPR 24" HHW DIFFERENTIAL PRESSURE	

OUTPUTS

DIGITAL OUTPUTS	DESCRIPTION	IP ADDRESS
DO	CHILLER CONTROL PANEL	
DO	CHILLED WATER SUPPLY CONTROL VALVE (AT CHILLER)	
DO	CONDENSER WATER SUPPLY CONTROL VALVE (AT CHILLER)	
DO	CONDENSER WATER RETURN CONTROL VALVE (AT COOLING TOWER)	
DO	CONDENSER WATER SUPPLY CONTROL VALVE (AT COOLING TOWER)	
DO	CHILLED WATER PUMP START/STOP	
DO	CHILLED WATER BYPASS CONTROL VALVE	
DO	CONDENSER WATER PUMP START/STOP	
DO	COOLING TOWER FAN MOTOR START/STOP	
DO	COOLING TOWER BLOWDOWN CONTROL VALVE	
DO	VFD COMMUNICATIONS	

ANALOG OUTPUTS	DESCRIPTION	IP ADDRESS
AO	CHILLER CONTROL PANEL	
AO	CHILLED WATER PUMP VFD SPEED	
AO	COOLING TOWER FAN VFD SPEED	
AO	WATER SOFTENER SYSTEM CONTROL VALVE	

NOTES:
(1) REFER TO DRAWINGS FOR EXACT QUANTITIES OF EQUIPMENT.

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SEAL

DEAN S. KENYON, P.E.
FL. LIC. No. 44012

Signature Date

DRAWING REVISIONS

REVISION	COMMENTS:
△	
△	
△	
△	
△	
△	

UNIVERSITY OF SOUTH FLORIDA
SOUTH EAST CHILLER PLANT
BR-590 COMPONENT #6
12225 USF MAPLE DRIVE
TAMPA, FLORIDA 33620

DRAWING TITLE :
MECHANICAL
ONE-LINE CONTROL DIAGRAM

Drawing Progress: 100% CONSTRUCTION DOCUMENTS

FILE NAME:	081106_M-17-18.DWG
DATE:	03-31-2009
PLOT SIZE:	NOT TO SCALE
CADDED BY:	HR
DESIGNED BY:	TSH
CHECKED BY:	TSH

PROJECT NO.
081106

SHEET NO.
M-17

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