

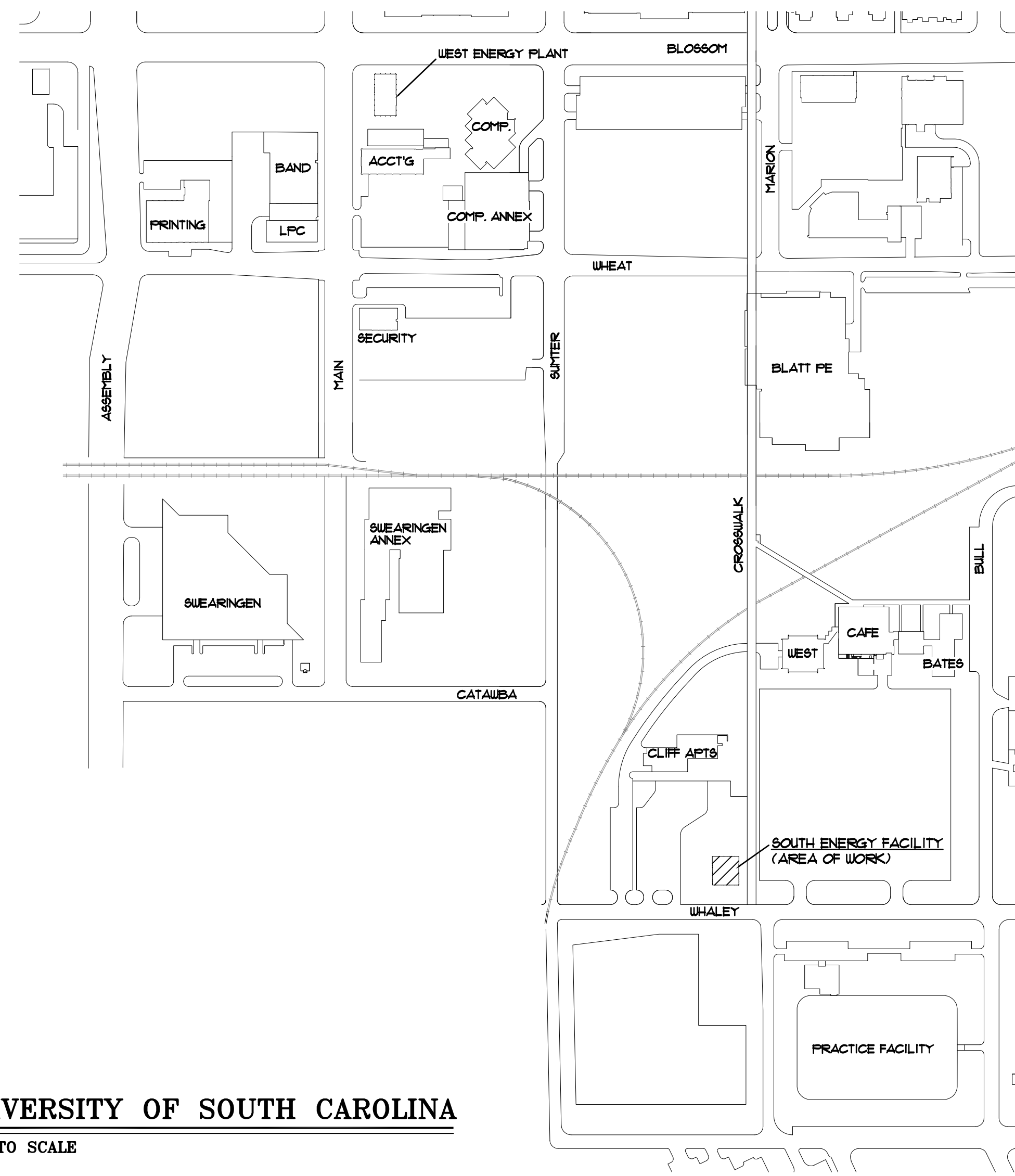
# INSTALL PLATE FRAME HEAT EXCHANGER

## SOUTH ENERGY FACILITY

STATE PROJECT NO. H27-1977

THE UNIVERSITY OF SOUTH CAROLINA  
COLUMBIA, SOUTH CAROLINA

FACILITIES PLANNING AND CONSTRUCTION



4403 BROAD RIVER ROAD  
COLUMBIA, S.C. 29210  
(803) 731-9834

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M2	MECHANICAL SCHEDULES AND DETAILS

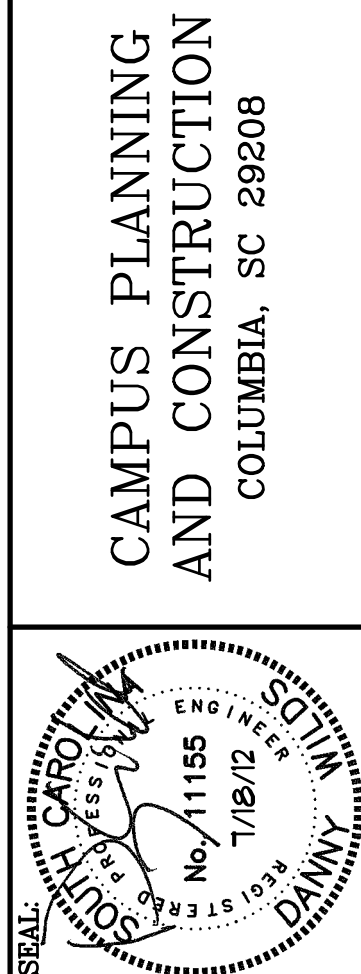
**CODE REVIEW INFORMATION**

PROJECT DESIGNED IN ACCORDANCE WITH:

1. International Building Code - 2009 Edition.
2. International Plumbing Code - 2009 Edition.
3. International Mechanical Code - 2009 Edition.
4. National Electric Code - 2008 Edition.
5. Seismic Design Category C

SYMBOLS	
	NEW MATERIALS
	MATERIALS TO BE REMOVED
	MATERIALS TO REMAIN
	PIPE TURNING DOWN
	CONDENSER WATER SUPPLY PIPE
	CONDENSER WATER RETURN PIPE
	CHILLED WATER SUPPLY PIPE
	CHILLED WATER RETURN PIPE
	MOTOR OPERATED CONTROL VALVE
	GATE VALVE, UNLESS OTHERWISE NOTED
	2-WAY CONTROL VALVE
	RELIEF VALVE

UNIVERSITY OF SOUTH CAROLINA  
NOT TO SCALE

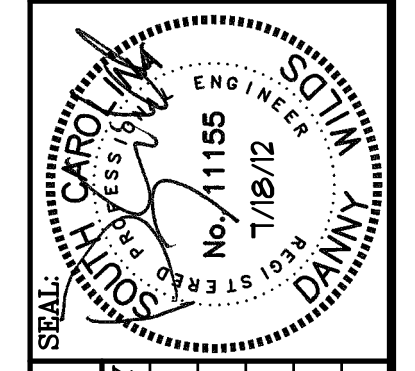


BUILDING:	DRAWING:	DATE:	DRAWN BY:	CHECKED BY:
		18 July 12		CDW
REV.	DESCRIPTION		DATE	ORIG. BY/DRAWN BY

PROJECT TITLE: INSTALL PLATE FRAME HEAT EXCHANGER  
SOUTH ENERGY FACILITY

University of South Carolina

SHEET: T1  
1 OF 2  
SHEET IN SET: OF

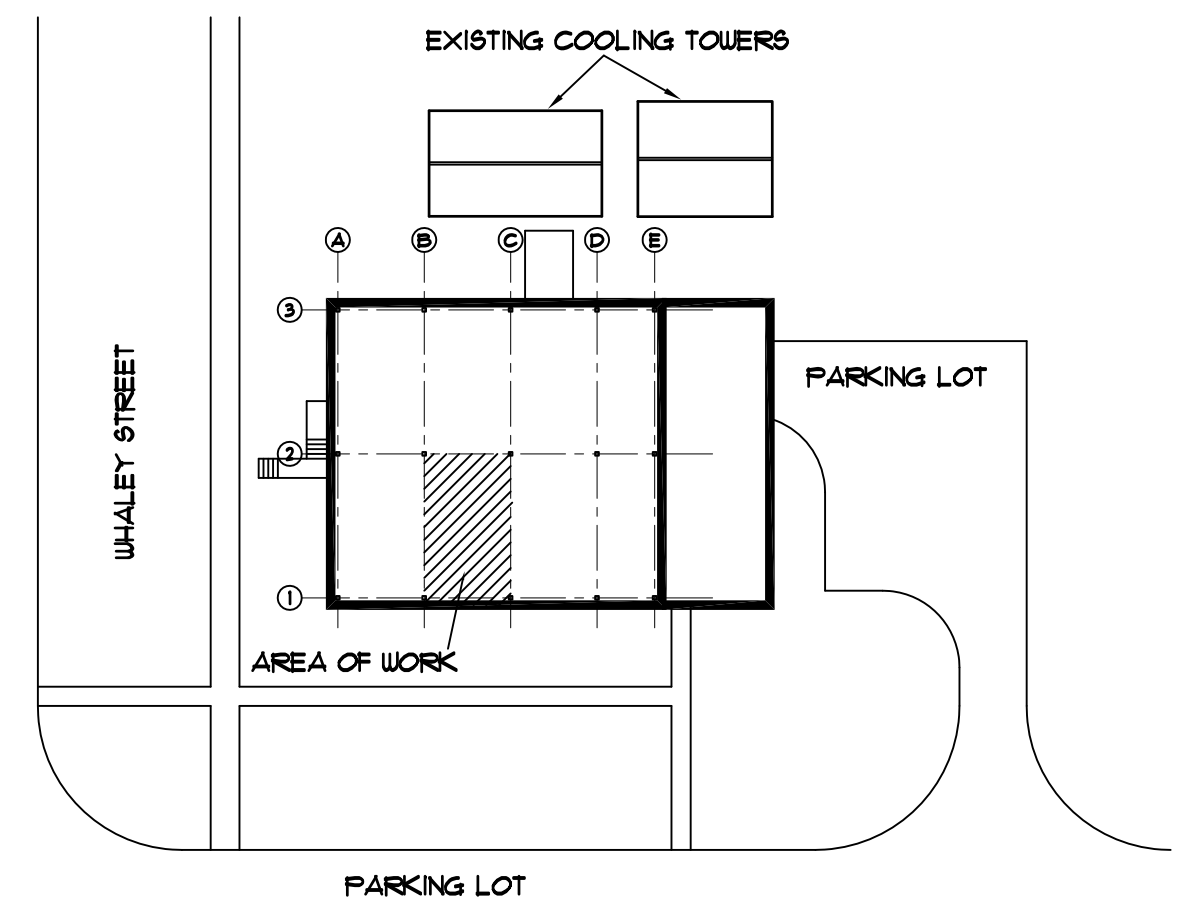


BUILDING:	DATE:	DRAWN BY:	CHECKED BY:
FRAME HEAT EXCHANGER	18 July 12	CDW	CDW
REV.	DESCRIPTION	DATE	BY

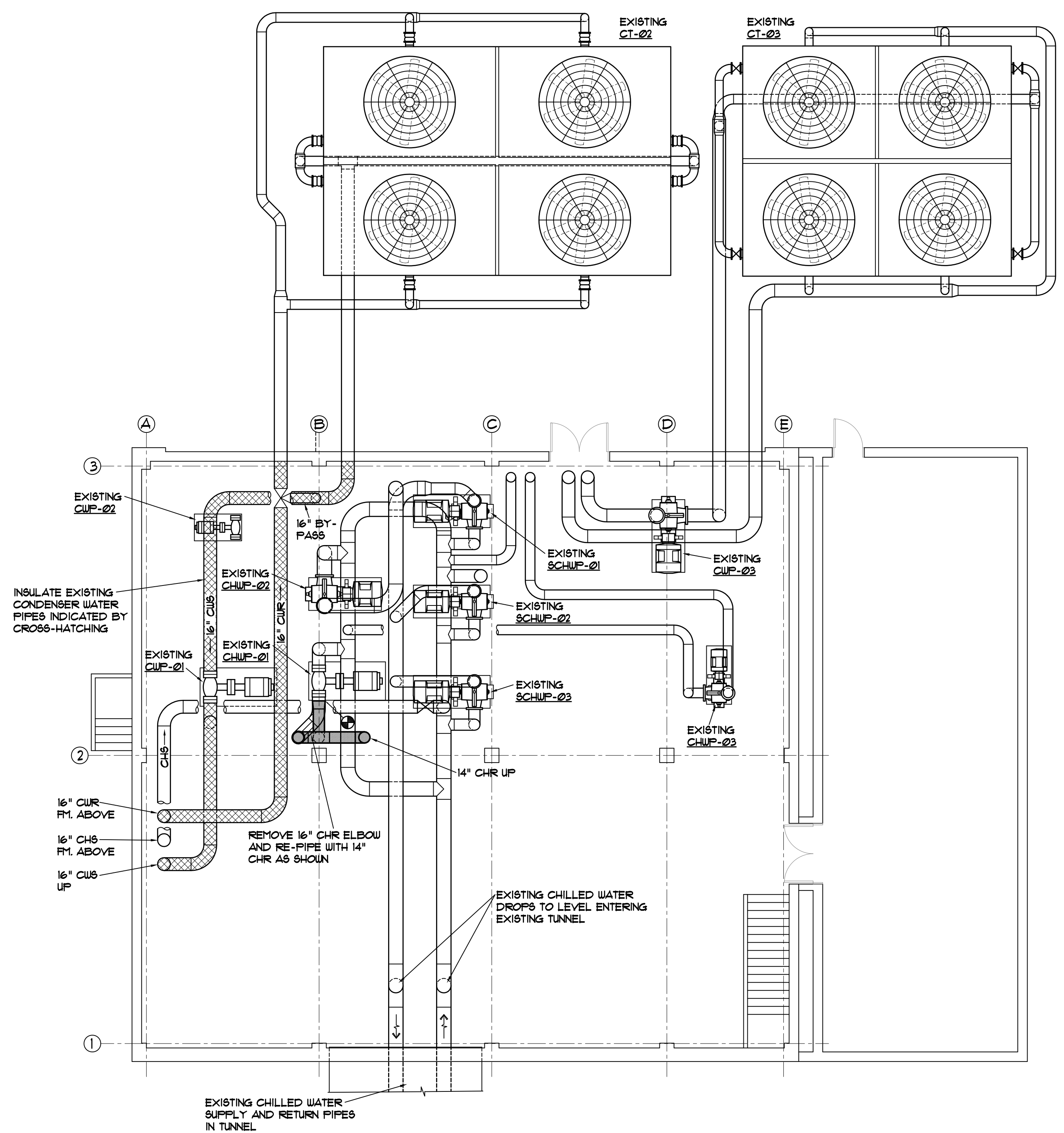
PROJECT TITLE: **INSTALL PLATE FRAME HEAT EXCHANGER SOUTH ENERGY FACILITY**

**HVAC NOTES**

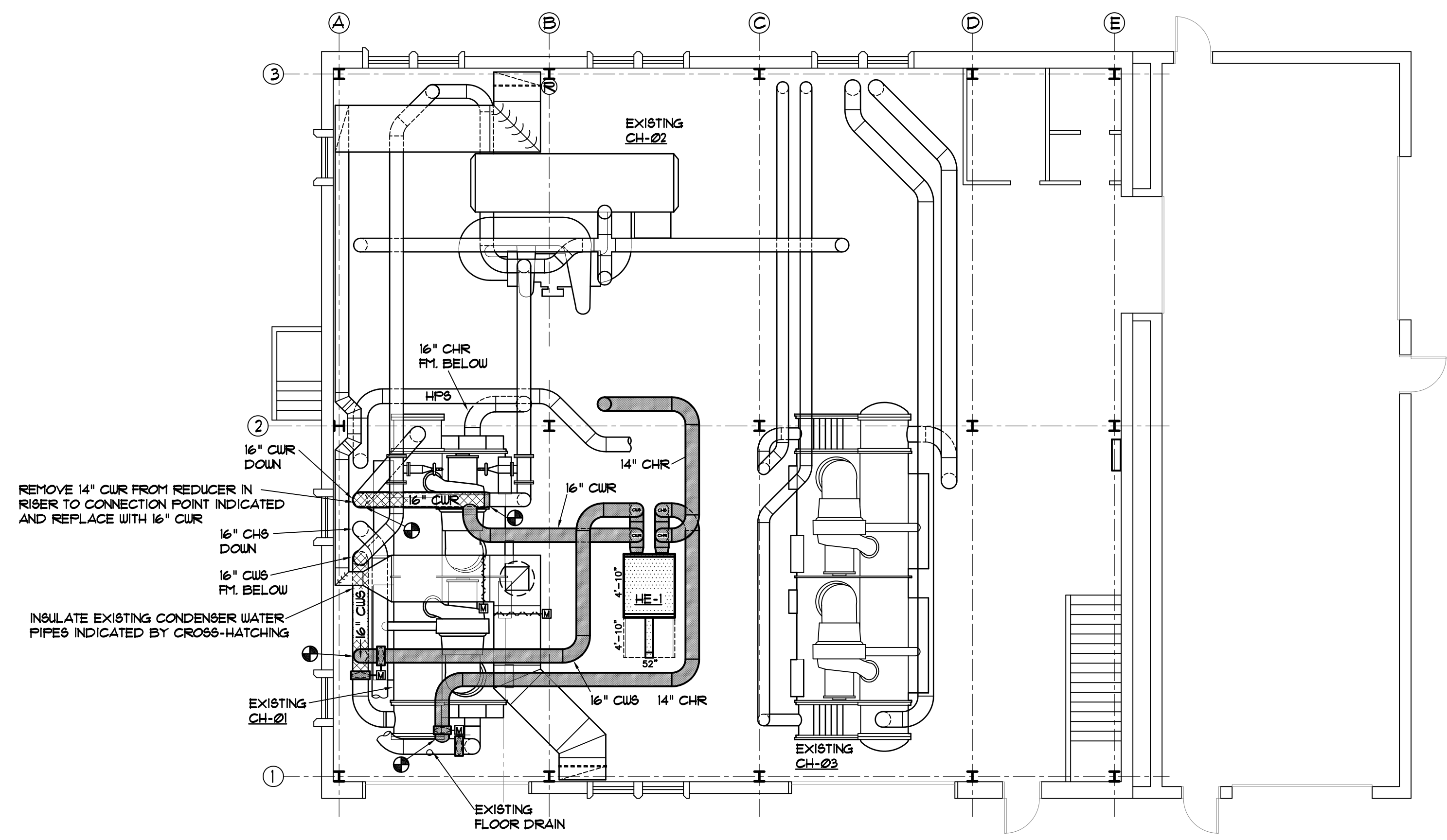
1. PRIOR TO BID, CONTRACTOR SHALL VISIT THE SITE OF WORK AND DETERMINE THE SCOPE OF WORK, MATERIALS REQUIRED AND METHOD OF INSTALLATION. WORK SHALL BE INSTALLED COMPLETE AND FULLY OPERATIONAL.
2. DO NOT SCALE DRAWINGS. ROUGH FROM EQUIPMENT MANUFACTURER'S DRAWINGS AND FROM EXISTING CONDITIONS. VERIFY ALL DIMENSIONS, ROUTING AND LOCATIONS IN THE FIELD.
3. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
4. ROUTE PIPES TO AVOID LIGHTS AND EXISTING PIPE INTERFERENCES.
5. WHENEVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN FURNISH AND INSTALL COMPLETE AND FULLY OPERATIONAL.
6. ALL CONTROL WIRING SHALL BE PROVIDED UNDER DIVISION 5. ALL WIRING SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE.
7. ALL VALVES AND OTHER PIPE SPECIALTIES SHALL BE LINE SIZE UNLESS NOTED OTHERWISE. USE ECCENTRIC REDUCERS ON ALL PIPE REDUCERS.
8. ALL PIPES SHALL PITCH DOWN IN DIRECTION OF FLOW 1" PER 50 FT. PROVIDE HOSE BIBB CONNECTIONS AT ALL LOW POINTS AND MANUAL AIR VENTS AT HIGH POINTS.
9. ALL OPENINGS THRU EXISTING STRUCTURES SHALL BE CORE DRILLED.
10. ALL MATERIALS CALLED FOR TO BE REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER. ANY ITEM THE OWNER DOES NOT WISH TO KEEP SHALL BE REMOVED FROM THE SITE OF WORK.
11. PROVIDE ALL ITEMS OF MISCELLANEOUS STEEL AS REQUIRED FOR INSTALLATION OF ALL MECHANICAL ITEMS.
12. PIPING SYSTEMS SHALL BE DRAINED AS REQUIRED FOR INSTALLATION OF WORK.
13. PIPING SHALL BE KEPT CLEAN OF DEBRIS DURING INSTALLATION.



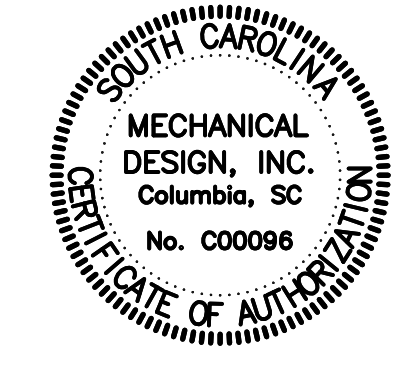
**SITE PLAN - SOUTH ENERGY FACILITY**  
NOT TO SCALE



**BASEMENT LEVEL MECHANICAL PLAN SOUTH ENERGY FACILITY - RENOVATIONS**  
SCALE: 1/8" = 1'-0"



**FIRST FLOOR MECHANICAL PLAN SOUTH ENERGY FACILITY - RENOVATIONS**  
SCALE: 1/8" = 1'-0"



**MECHANICAL DESIGN, INC.**  
4403 Broad River Road  
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(803) 731-9834  
(803) 731-9837 FAX  
CONTACT: Danny Wilds  
DATE: 07/18/12 COMM. NO. 122971

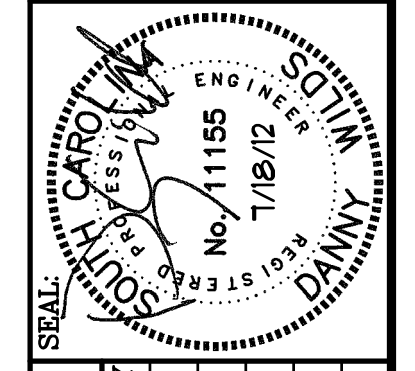
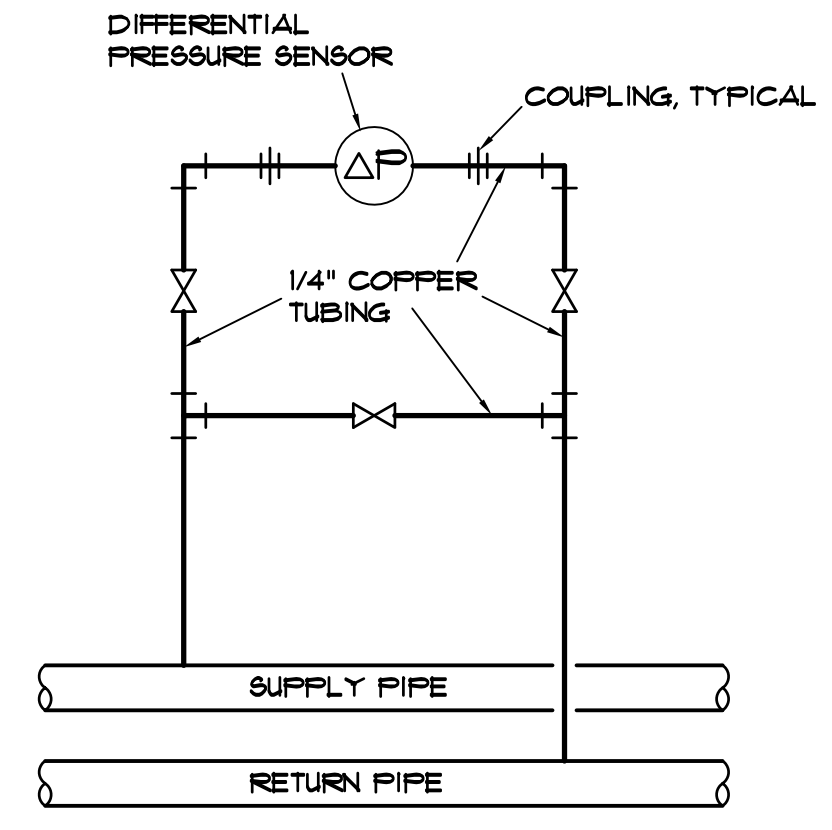


PLATE TYPE HEAT EXCHANGER SCHEDULE										
MARK	BAG MODEL ①	CHILLED WATER (PRODUCT) SIDE				CONDENSER WATER (MEDIUM) SIDE				FOULING
		GPM	E.W.T.	L.W.T.	WATER PD	GPM	E.W.T.	L.W.T.	WATER PD	
HE-1	F145	3,840	59.5°F	52.0°F	10'	6,600	49.0°F	53.4°F	10'	10%

① OR EQUAL BY ALPHA LAVAL, CALMAC, SONDEX, OR APPROVED EQUAL



DIFFERENTIAL PRESSURE SENSOR PIPING DIAGRAM  
NOT TO SCALE

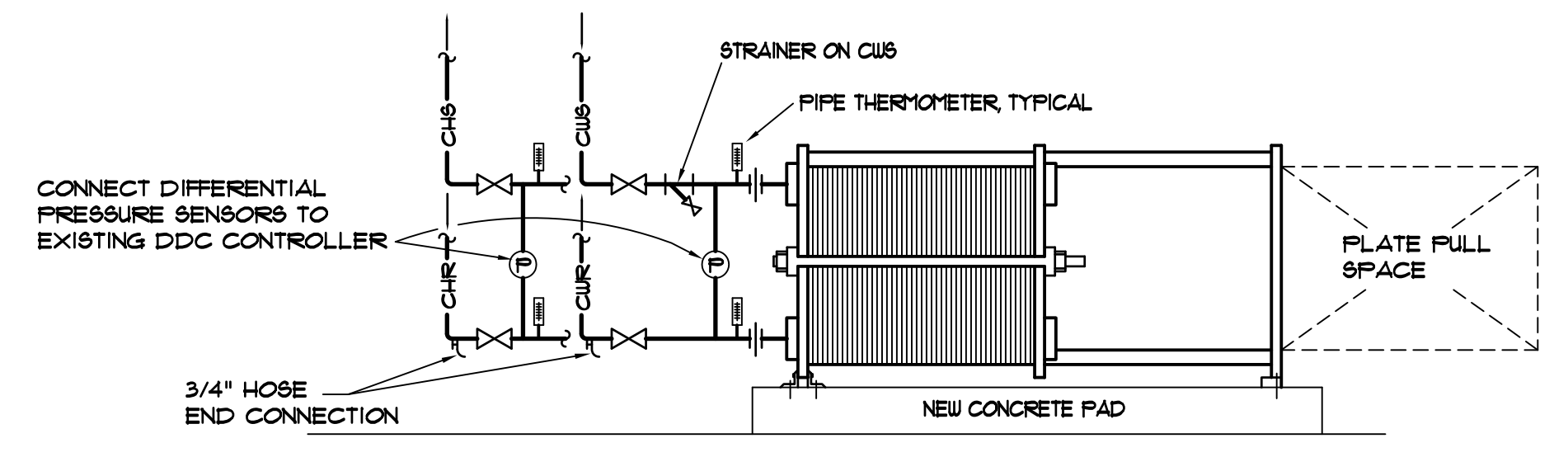
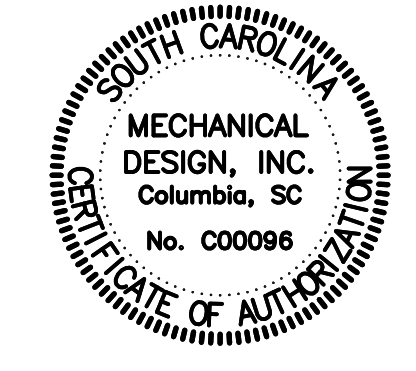


PLATE TYPE HEAT EXCHANGER DETAIL  
NOT TO SCALE

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