

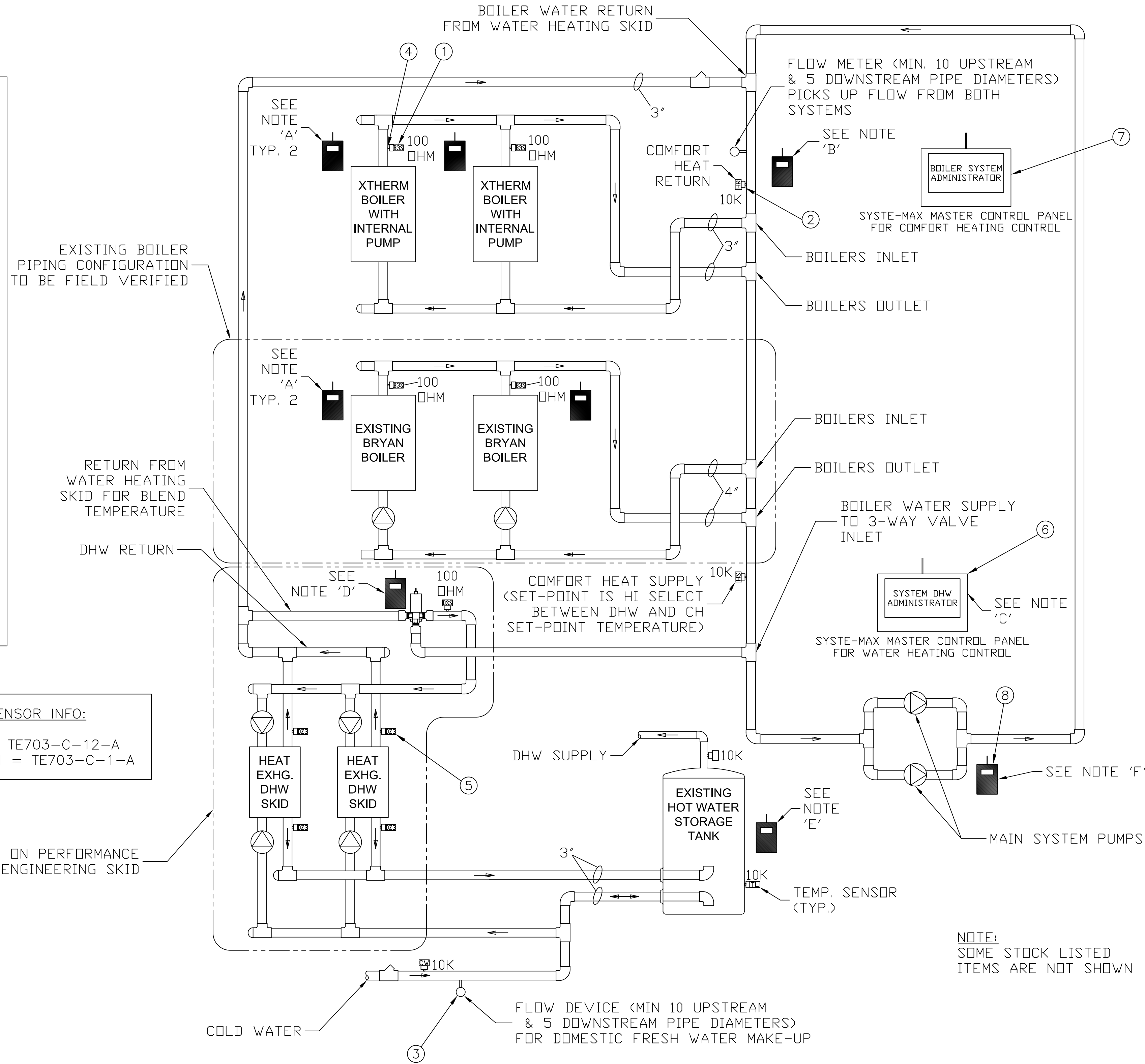
PIPING DIAGRAM

SCALE: NONE

- NOTES:
- A) BOILER FIELD DEVICE READS INLET TEMP, OUTLET TEMP, ALARM STATUS, AND ON PROVE. CONTROLS BOILER, PUMP AND BOILER DELTA T. RECEIVES LOAD ASSIGNMENT FROM COMFORT HEAT MASTER CONTROLLER.
- B) ADMINISTER FIELD DEVICE READS FLOW, OUTDOOR AIR, SUPPLY TEMP, RETURN TEMP, DHW PRIORITY AND CONTROLS SYSTEM SETPOINT.
- C) DHW SKID FIELD DEVICE. CONTROLS HEATING WATER PUMP, DOMESTIC WATER PUMP. READS HEATING WATER INLET TEMP AND DOMESTIC WATER OUTLET TEMP.
- D) 3 WAY VALVE FIELD DEVICE ACTS LIKE DHW BOILER BY CONTROLLING SUPPLY TEMP TO HEATING WATER SIDE OF SKID TO 140°F (RANGE 130°–150°) CROSS LIMITED BY OUTLET TEMP OF DOMESTIC SIDE OF SKID INDEPENDENT OF COMFORT HEAT RESETS ABOVE 130°F.
- E) DHW TANK FIELD SERVICE READS TANK HIGH TEMP, TANK LOW TEMP, SKID DOMESTIC SUPPLY TEMP, COLD WATER INLET TEMP, COLD WATER INLET GPM AND MONITORS TANK HIGH LIMIT. REPORTS DATA TO DHW MASTER CONTROLLER.
- F) OPTIONAL PUMP CONTROL NODE.

SENSOR INFO:

10K = TE703-C-12-A
100 OHM = TE703-C-1-A



EQUIPMENT LIST		
ITEM	QTY.	DESCRIPTION
1	8	TE-703-C-1-A 100OHM SENSOR
2	4	TE-703-C-12-A 10K SENSOR
3	2	TX201B FLOW METER
4	12	A-500-1-B-1 SENSOR WELL
5	4	TF81TC-B-200 W/TX81B BRASS HOUSING
6	1	DHW ADMINISTRATOR
7	1	BOILER ADMINISTRATOR
8	1	PUMP CONTROL NODE (AUX)

CONSULTANTS:

HURST MECH.

LIVONIA MICHIGAN

PROJECT NAME:

CALHOUN COUNTY JUSTICE CENTER

THAW-PAK DISTRIBUTOR:

PERFORMANCE engineering group

DRAWN BY:	Gordon Faustich
REVIEWED BY:	AD
APPROVED BY:	AD
ISSUED FOR	
08/24/10	SENT FOR BUILD
08/24/10	UPDATED BOM TO 2010 EDITIONS
09/01/10	CONVERTED TO PIG FOR NO.
09/08/10	UPDATED SENSORS
09/15/10	ADDED SHEET
09/21/10	ADDED SHEET
09/30/10	ADDED BRYAN
12/22/10	ADDED SEQUENCE TO CONTROLS

PROPERTY OF THAW-PAK

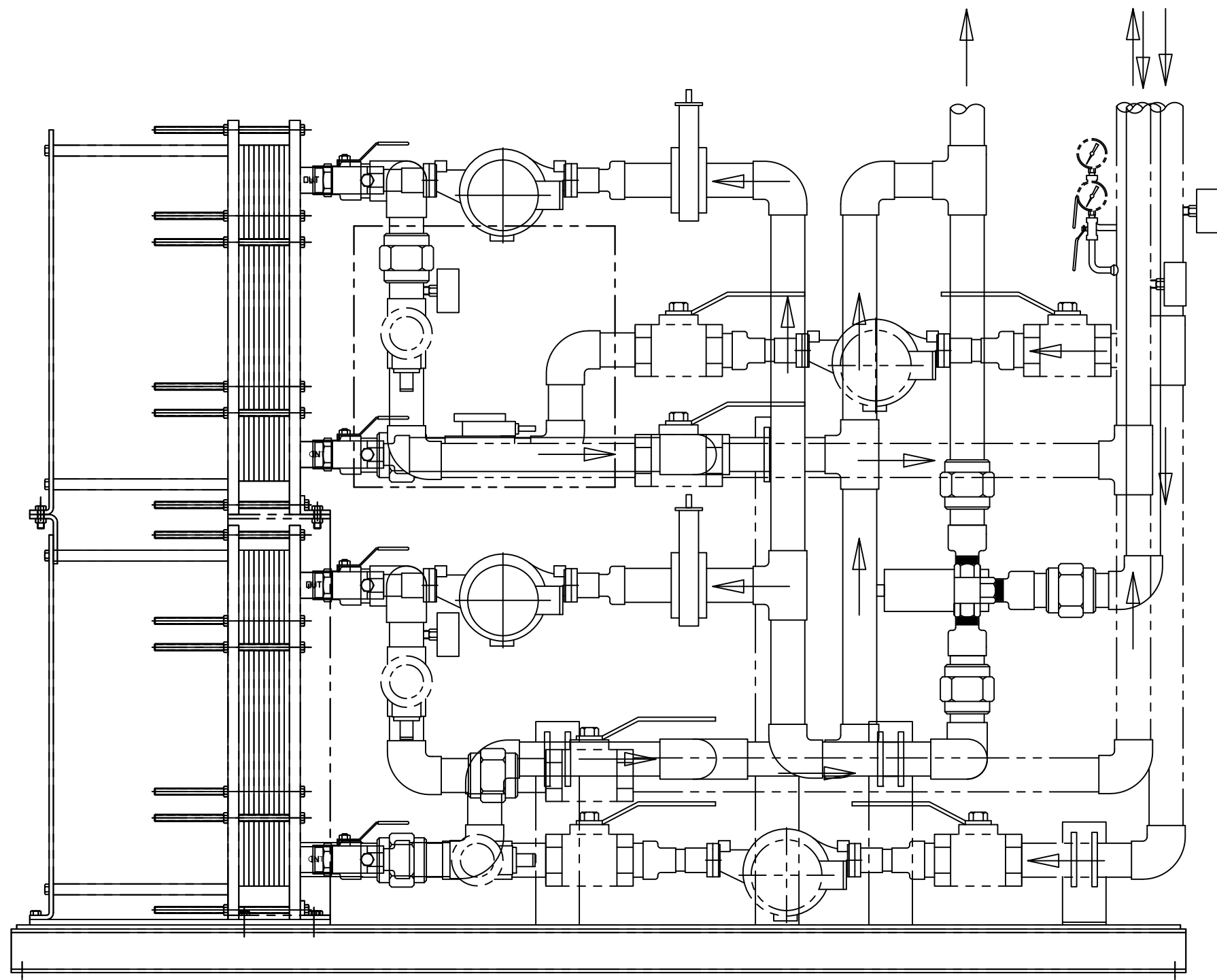
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DRAWING NO.

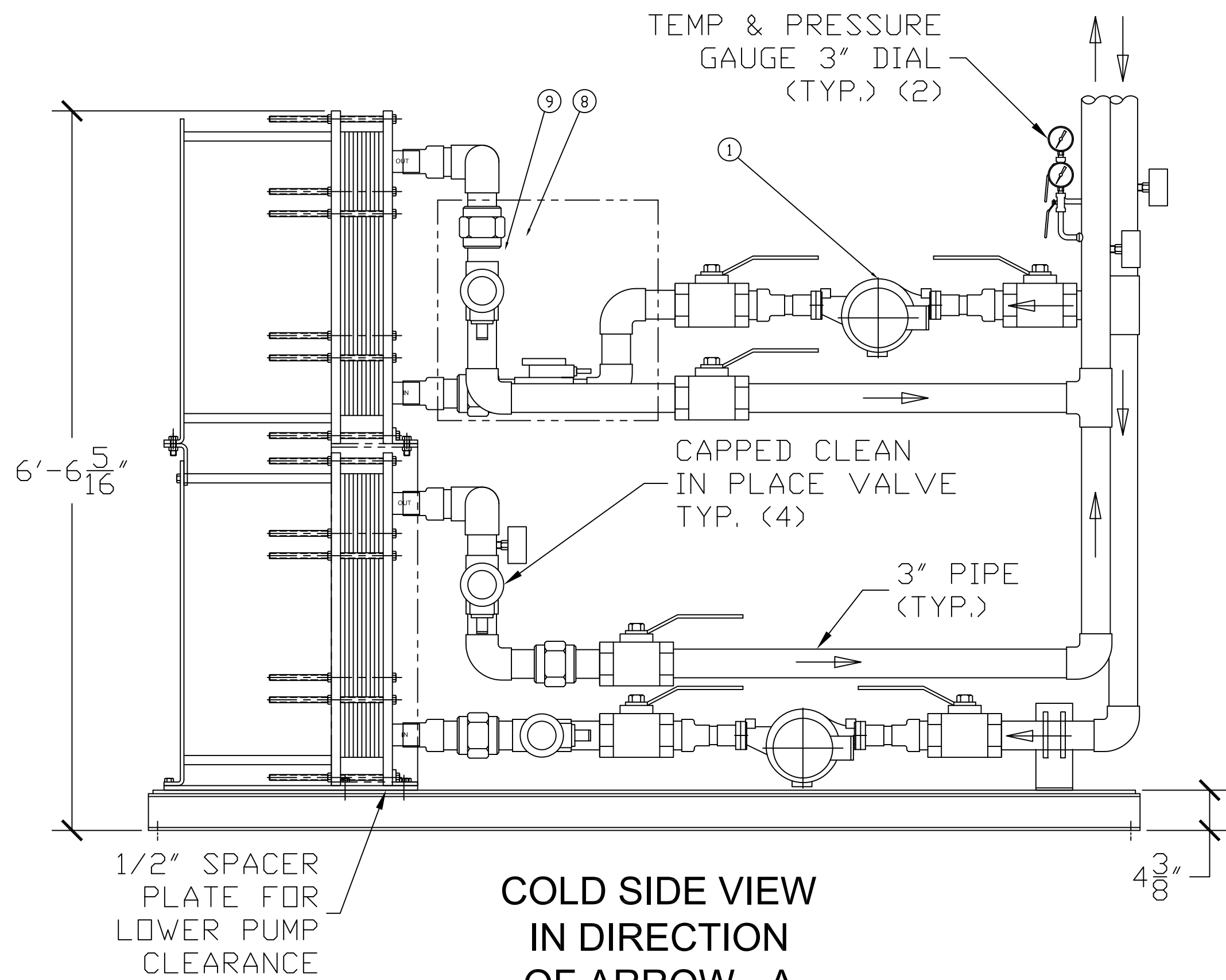
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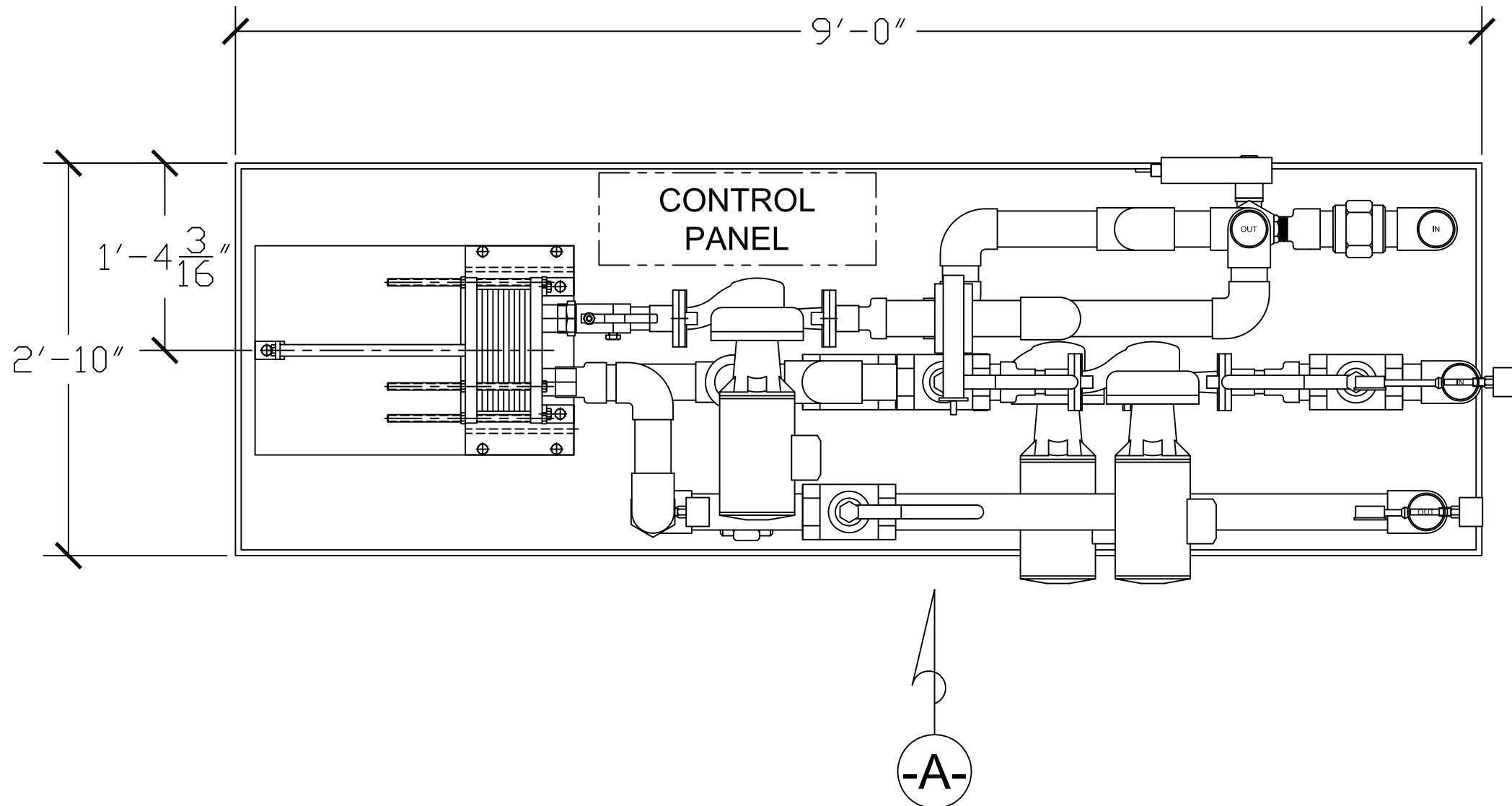
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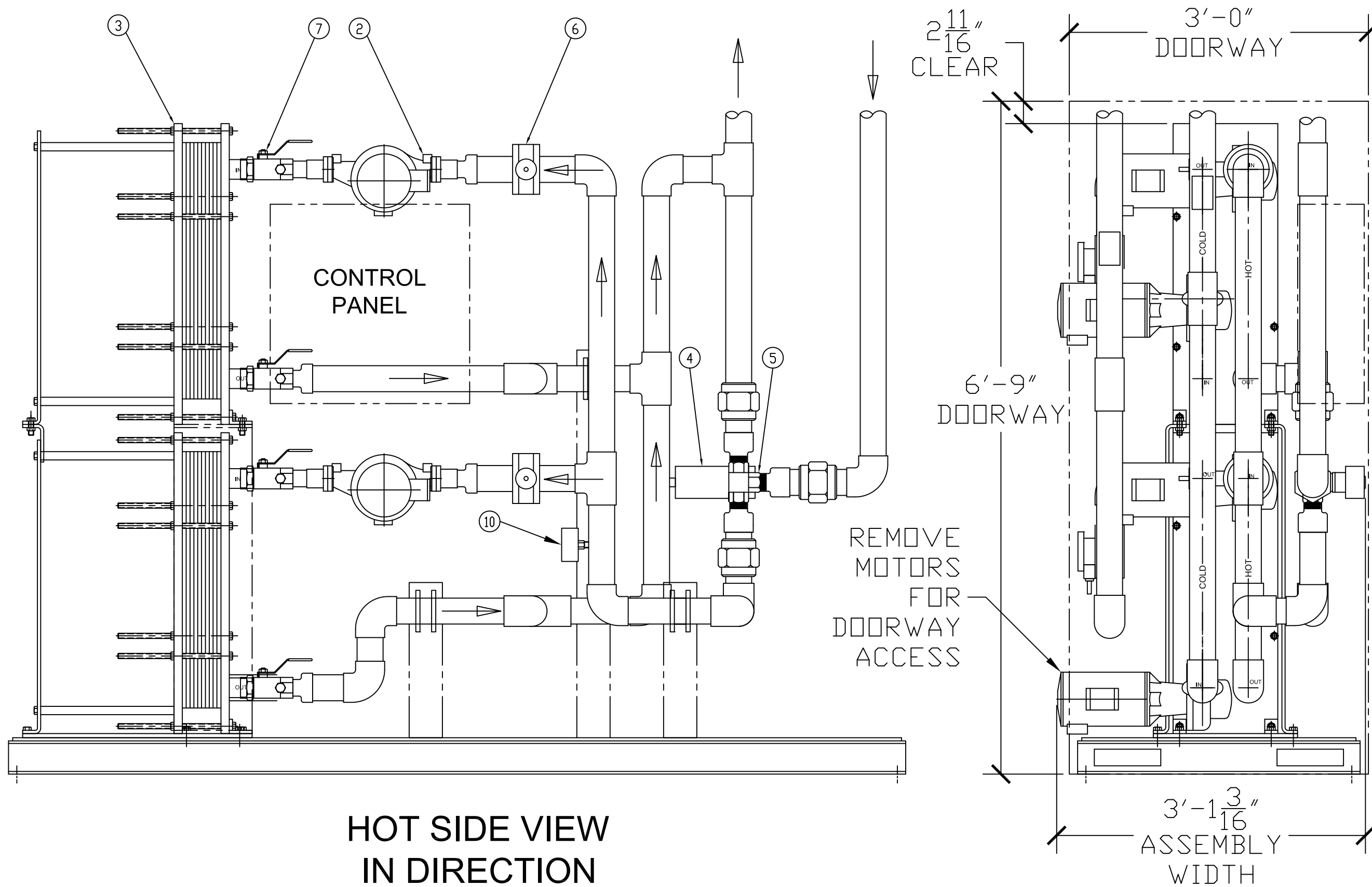
COMPOSITE VIEW IN
DIRECTION OF ARROW -A-
COLD SIDE IN PHANTOM



COLD SIDE VIEW
IN DIRECTION
OF ARROW -A-



HOT SIDE VIEW
IN DIRECTION
OF ARROW -A-



EQUIPMENT LIST		
ITEM	QTY.	DESCRIPTION
1	2	B&G SERIES 60 3X3X5-1/4 CENTRIFUGAL PUMP ALL BRONZE B-131.7A 1-1/2 SINGLE PHASE
2	2	B&G SERIES 60 3X3X5-1/4 CENTRIFUGAL PUMP BRONZE FITTED B-131.7A 1-1/2 SINGLE PHASE
3	2	ALFA LAVAL PLATE HEAT EXCHANGER MODEL M6-FG
4	1	BELIMO PROPORTIONAL ACTUATOR MODEL AF24-SR
5	1	BELIMO B3 SERIES CONTROL VALVE MODEL B347-B352
6	2	JOMAR DUCTILE IRON BODY, 316 SS, LUG TYPE BUTTERFLY VALVE. MODEL 600-03DS_B
7	4	JOMAR T-100/UE SYSTEM-6 BALL VALVE I.P.S. MODEL 160-108
8	4	MAMAC SYSTEMS IMMERSION TEMP SENSOR MODEL TE-703-C-12-A
9	5	MAMAC SYSTEMS 4" THERMOWELL MODEL A-500-1
10	1	MAMAC SYSTEMS IMMERSION TEMP SENSOR MODEL TE-703-C-1-A

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SHEET NO.
M1