

PIPING TRANSITION PLAN

SCALE: APPROX. 1/16" = 1'-0"

CONSULTANTS:
 -
 CITY MICHIGAN

PROJECT NAME:
KITH OVERALL PIPING
 BLOOMFIELD HILLS MICHIGAN

THAW-PAK DISTRIBUTOR:
PERFORMANCE
 engineering group

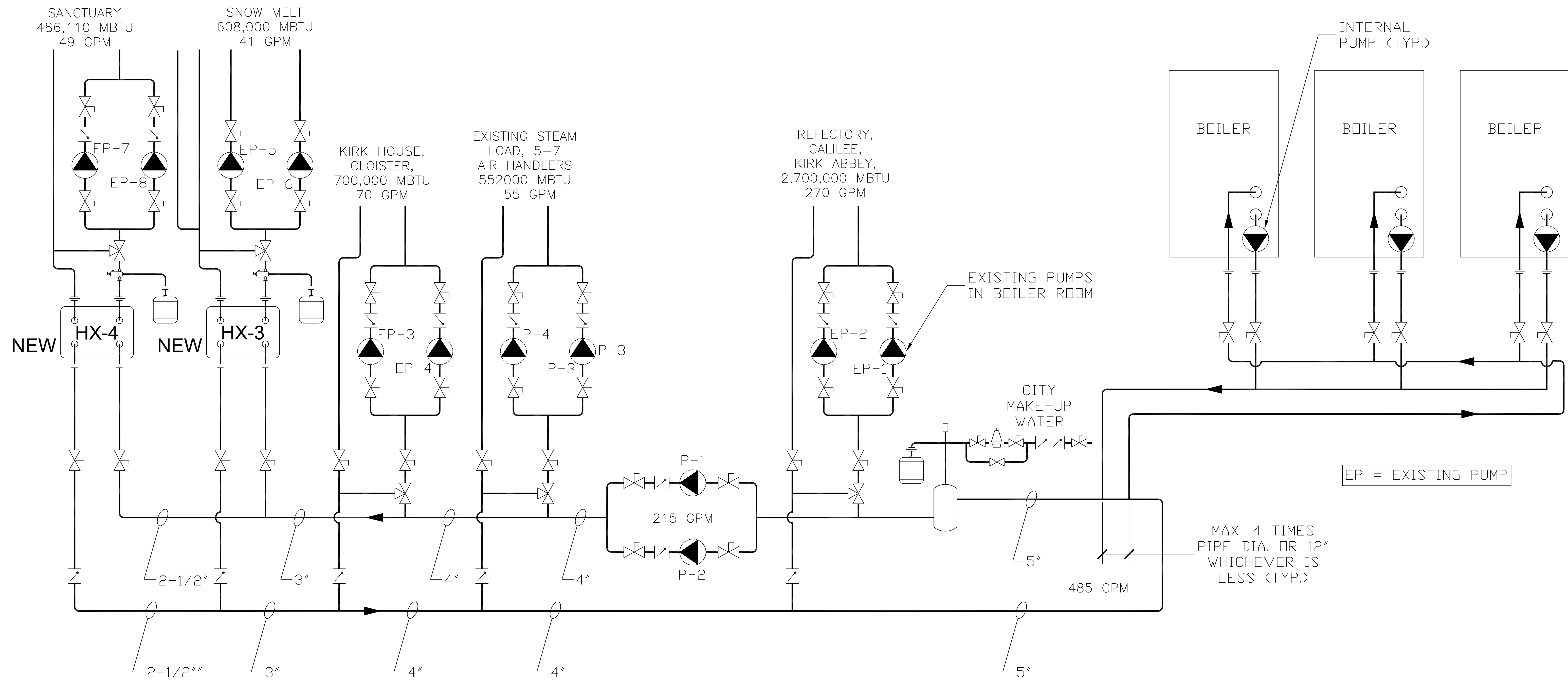
DRAWN BY:
 Gordon Faustich
 REVIEWED BY:
 AD
 APPROVED BY:
 AD

ISSUED FOR	APPROVAL
06/12/12	APPROVAL
06/25/12	CONSOLIDATED SHEETS
12/05/12	ADDED CONTROLS
12/11/12	UPDATED PUMP SCHEDULE
12/17/12	UPDATED PUMPS AND PIPE SIZES

PROPERTY OF THAW-PAK
 This drawing is the property of THAW-PAK, it has been prepared to assist in the installation of our systems. Customer agrees to keep confidential and not disclose this drawing or copies thereof without our written consent.

DRAWING NO.
KITH PIPING & VENTING V9

SHEET NO.
P1



PIPING TRANSITION PLAN

NOT TO SCALE

PIPING SYMBOLS LEGEND	
MIXING VALVE	EXPANSION TANK
DIVERTING VALVE	BY-PASS VALVE
PRESSURE REDUCE VALVE	DRAIN VALVE
PUMP	THERMOMETER
CHECK VALVE	GAUGE
UNIONS	BALL VALVE
CIRCUIT SETTER	AIR SEPARATOR
ZONE VALVE	BACK FLOW PREVENTER
FLOWGARD VALVE	AIR VENT

NOTES:
 * MAX PIPE SPACING TO BE 12 INCHES OR 4 PIPE DIAMETERS APART OR WHICH EVER IS LESS.

PUMP SCHEDULE AND VFD SCHEDULE									
MODEL	TYPE	HP	PHASE	VOLTS	SPD.	FLANGE	MAT. #	SIZE	PUMP#
4070-7VL	CI	5	3	230	N/A	4" ANSI	N/A	4"	P-1 & P-2
MAGNA40-120	CI	1/3	1	230	N/A	GF15/40	96734489	1.5"	P-3 & P-4
B&G 1510 3BB-8.5	CI	7-1/2	3	230	N/A	3" ANSI	N/A	3"	EP-1 & EP-2
B&G SERIES 80 2 1/2X2 1/2X7	CI	1-1/2	3	230	1	125#ANSI	N/A	2-1/2"	EP-3 & EP-4
UPS40-240/2	CI	1/2	1	230	3	539605	96402797	1.5"	EP-5 & EP-6
B&G SERIES 80 1.5X7-6.5"	CI	1-1/2	3	230	1	125#ANSI	N/A	1"	EP-7 & EP-8
3PH 200-400V 24.2A NEMA 1 VFD DRIVE	-	-	-	200-240	-	-	91136753	-	EP-1 & EP-2
3PH 200-400V 6.6A NEMA 1 VFD DRIVE	-	-	-	200-240	-	-	91136791	-	EP-7 & EP-8
3PH 200-400V 16.7A NEMA 1 VFD DRIVE	-	-	-	200-240	-	-	91136752	-	P-1 & P-2

CONSULTANTS:
MICHIGAN

CITY
MICHIGAN

PROJECT NAME:
KITH TRANSITION PIPING
MICHIGAN

BLOOMFIELD HILLS
MICHIGAN

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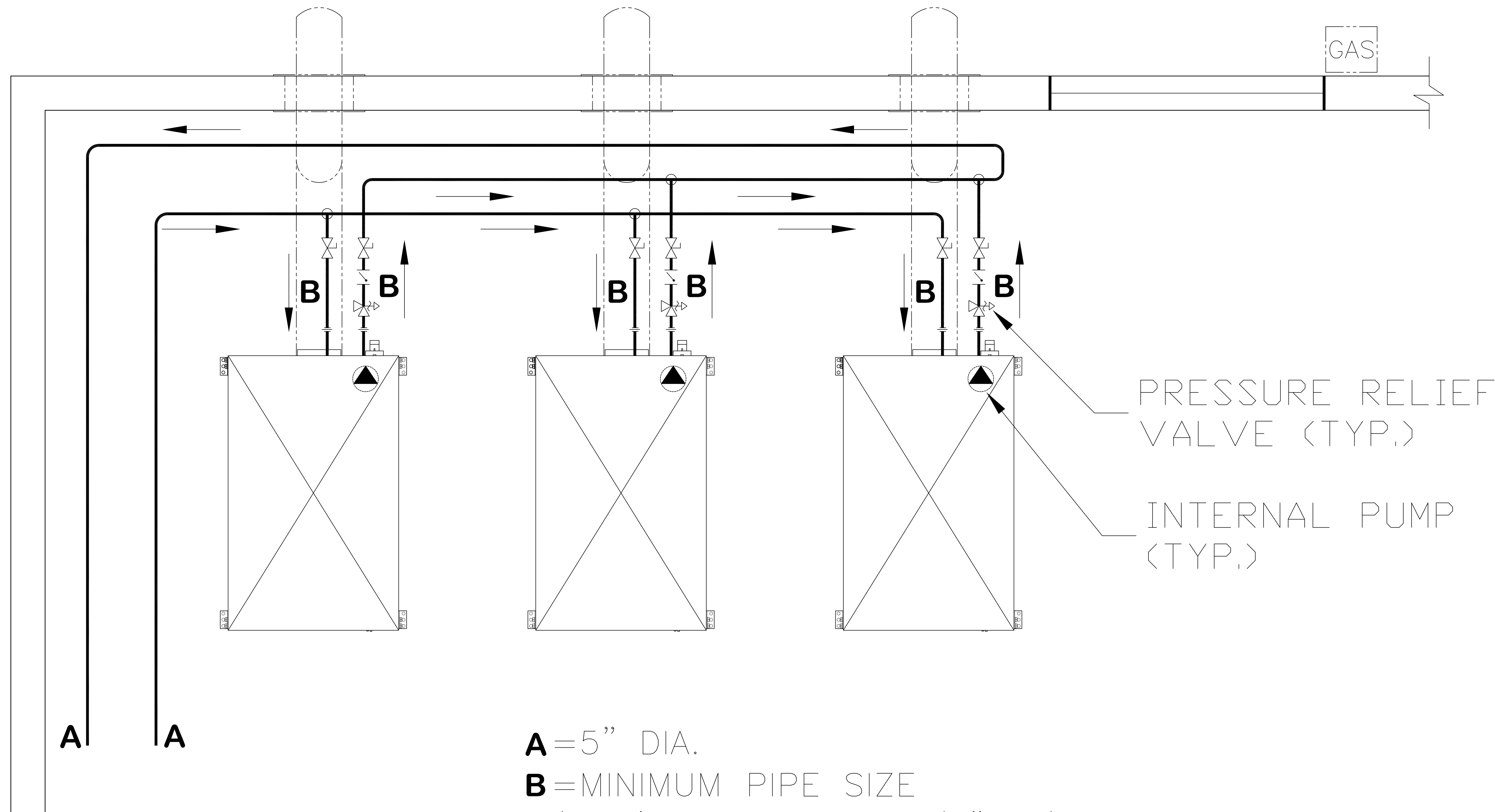
12/11/12 UPDATED PUMP SCHEDULE

12/17/12 UPDATED PIPE SIZES

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SHEET NO.
P2



A = 5" DIA.
B = MINIMUM PIPE SIZE
 * (<80' EQUIV. = 2-1/2"NPT)
 * (80-200' EQUIV. = 3"NPT)

PRESSURE RELIEF VALVE (TYP.)
 INTERNAL PUMP (TYP.)

PIPING SYMBOLS LEGEND			
MIXING VALVE		EXPANSION TANK	
DIVERTING VALVE		BY-PASS VALVE	
PRESSURE REDUCE VALVE		DRAIN VALVE	
PUMP		THERMOMETER	
CHECK VALVE		GAUGE	
UNIONS		BALL VALVE	
CIRCUIT SETTER		AIR SEPARATOR	
ZONE VALVE		BACK FLOW PREVENTER	
FLOWGARD VALVE		AIR VENT	

NOTES:
 * MAX PIPE SPACING TO BE 12 INCHES OR 4 PIPE DIAMETERS APART OR WHICH EVER IS LESS.

* MINIMUM PIPE SIZE BASED ON TOTAL EQUIVALENT FEET OF SUPPLY AND RETURN PIPING BETWEEN THE SYSTEM LOOP AND HEATER.

CONSULTANTS: MICHIGAN CITY

PROJECT NAME: KITH NEAR BOILER PIPING ALT. ARRANGEMENT MICHIGAN BLOOMFIELD HILLS

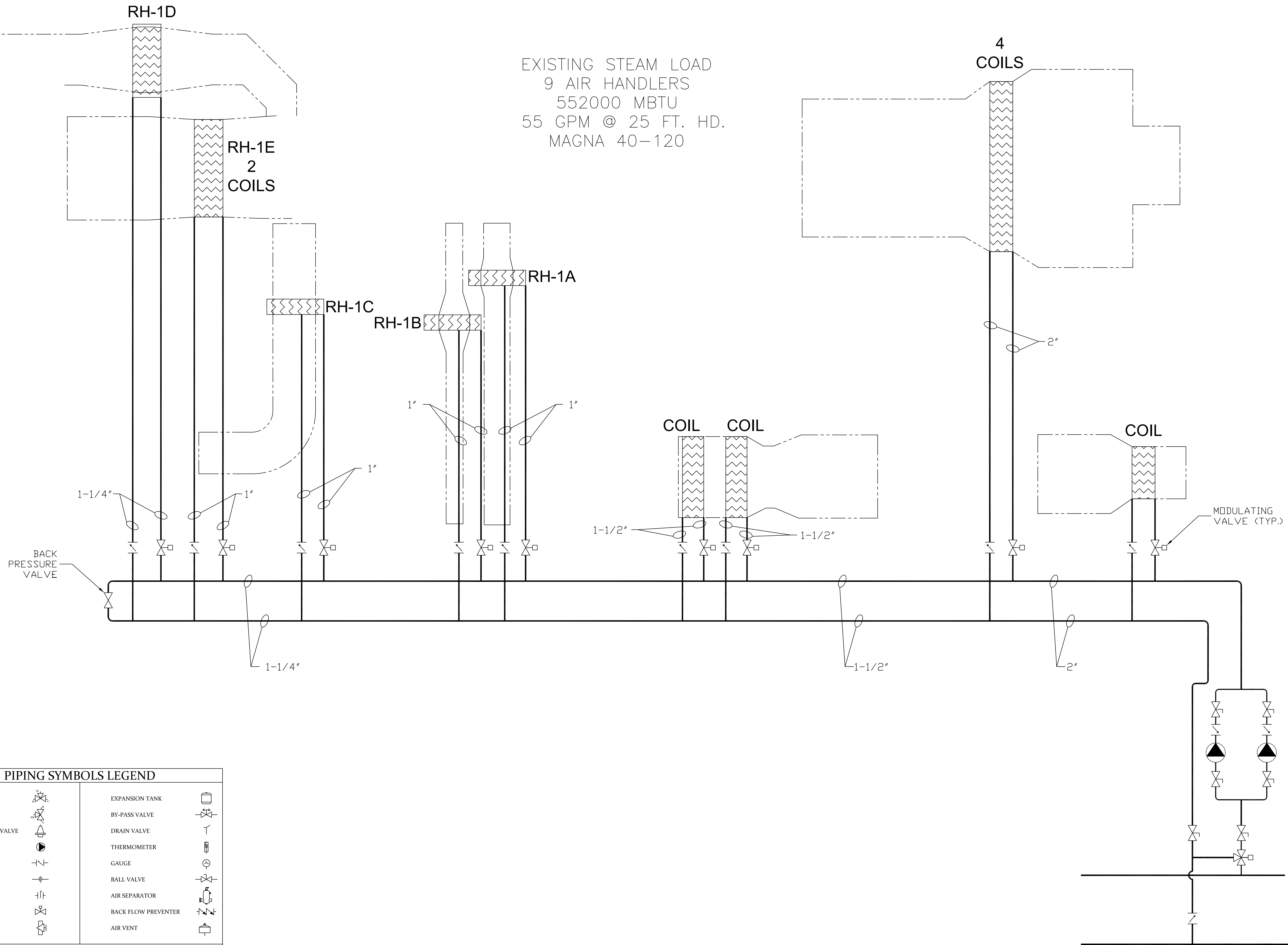
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ADDED CONTROLS	12/05/12
UPDATED PUMP SCHEDULE	12/11/12
UPDATED PIPING AND PIPE SIZES	12/17/12

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DRAWING NO. KITH PIPING & VENTING V9
 SHEET NO. P3



EXISTING STEAM LOAD
 9 AIR HANDLERS
 552000 MBTU
 55 GPM @ 25 FT. HD.
 MAGNA 40-120

PIPING SYMBOLS LEGEND

MIXING VALVE		EXPANSION TANK	
DIVERTING VALVE		BY-PASS VALVE	
PRESSURE REDUCE VALVE		DRAIN VALVE	
PUMP		THERMOMETER	
CHECK VALVE		GAUGE	
UNIONS		BALL VALVE	
CIRCUIT SETTER		AIR SEPARATOR	
ZONE VALVE		BACK FLOW PREVENTER	
FLOWGARD VALVE		AIR VENT	

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CONSULTANTS:
 MICHIGAN
 CITY

PROJECT NAME:
KITH AIR HANDLER PIPING
 MICHIGAN
 BLOOMFIELD HILLS

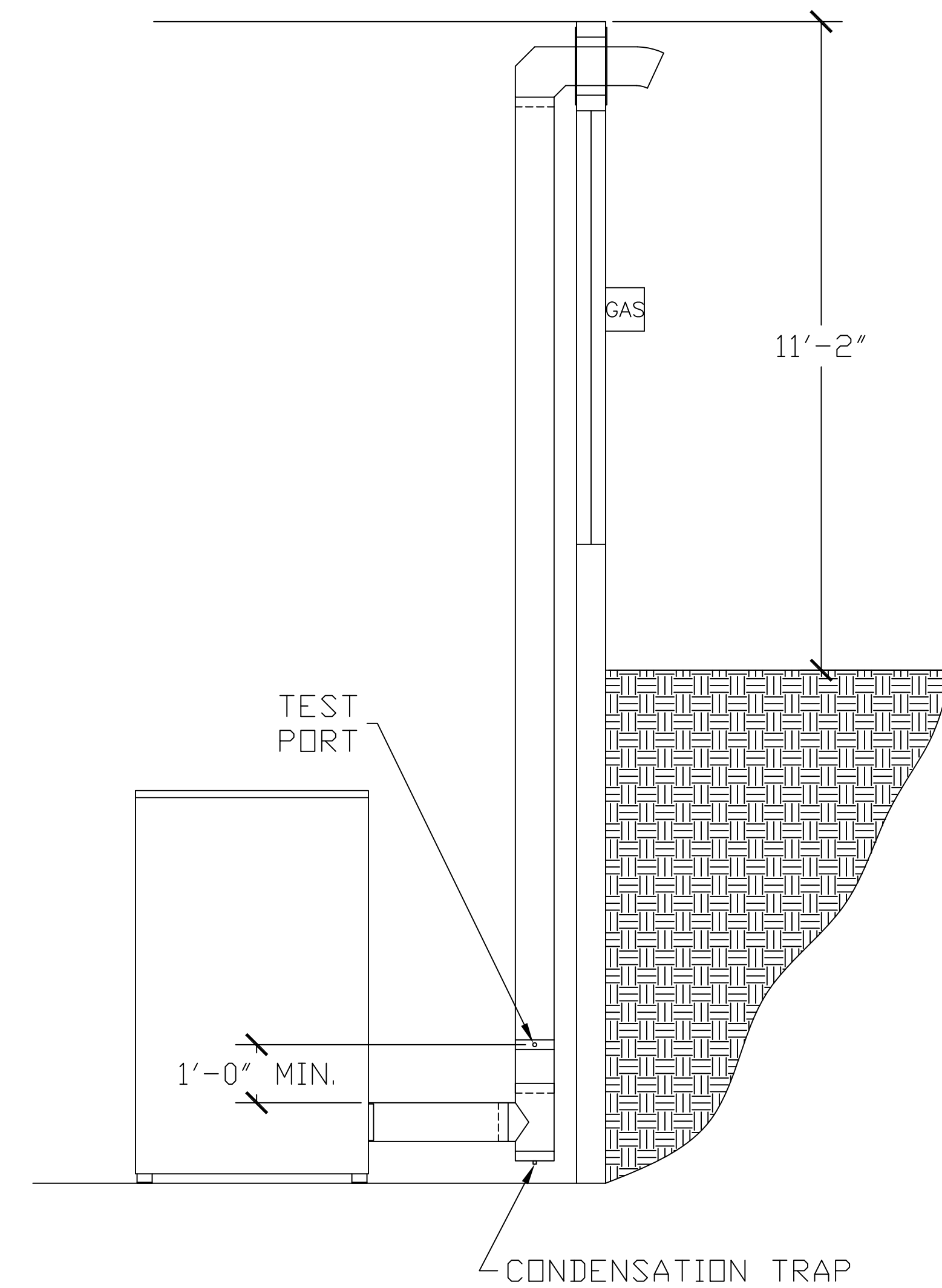
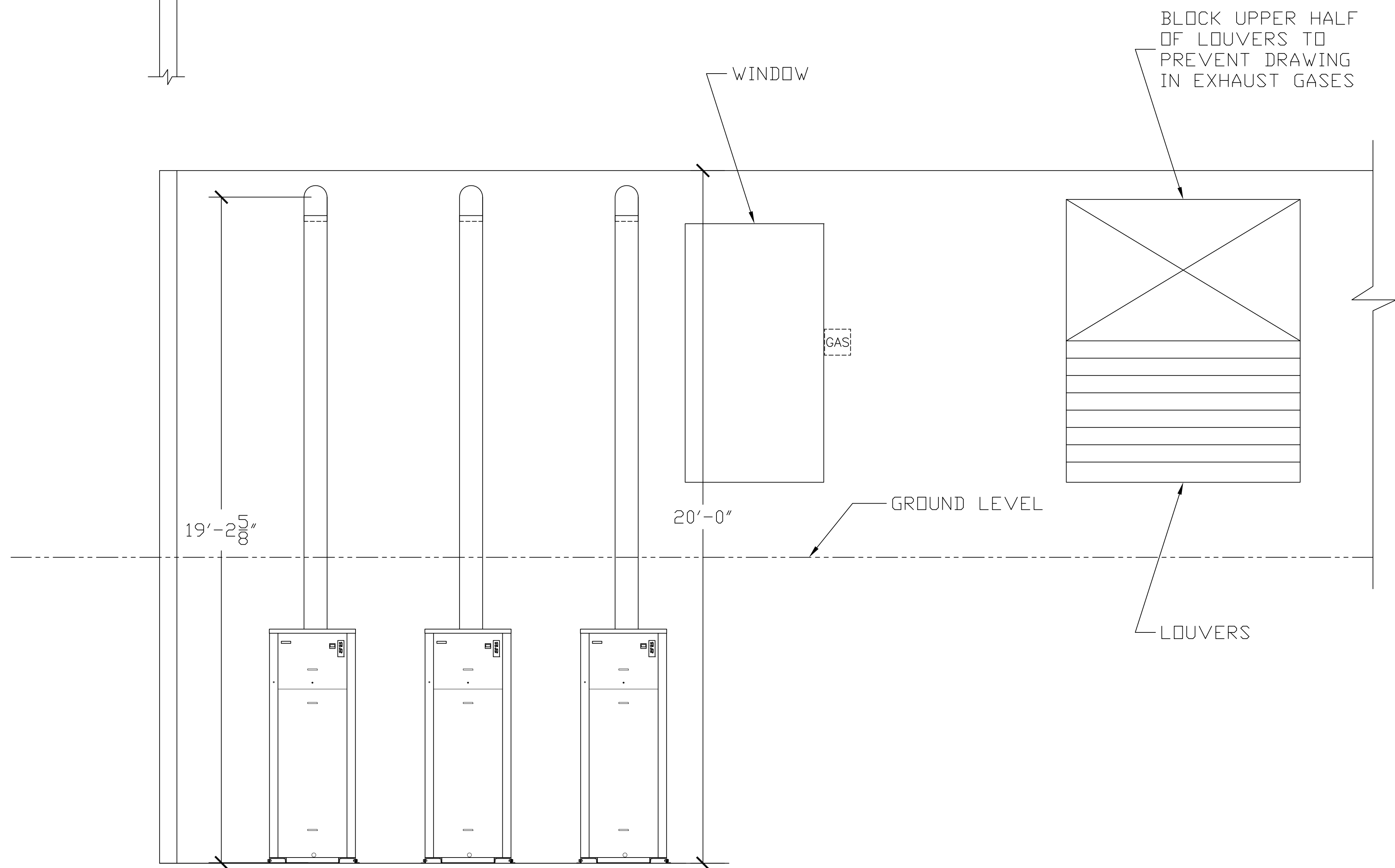
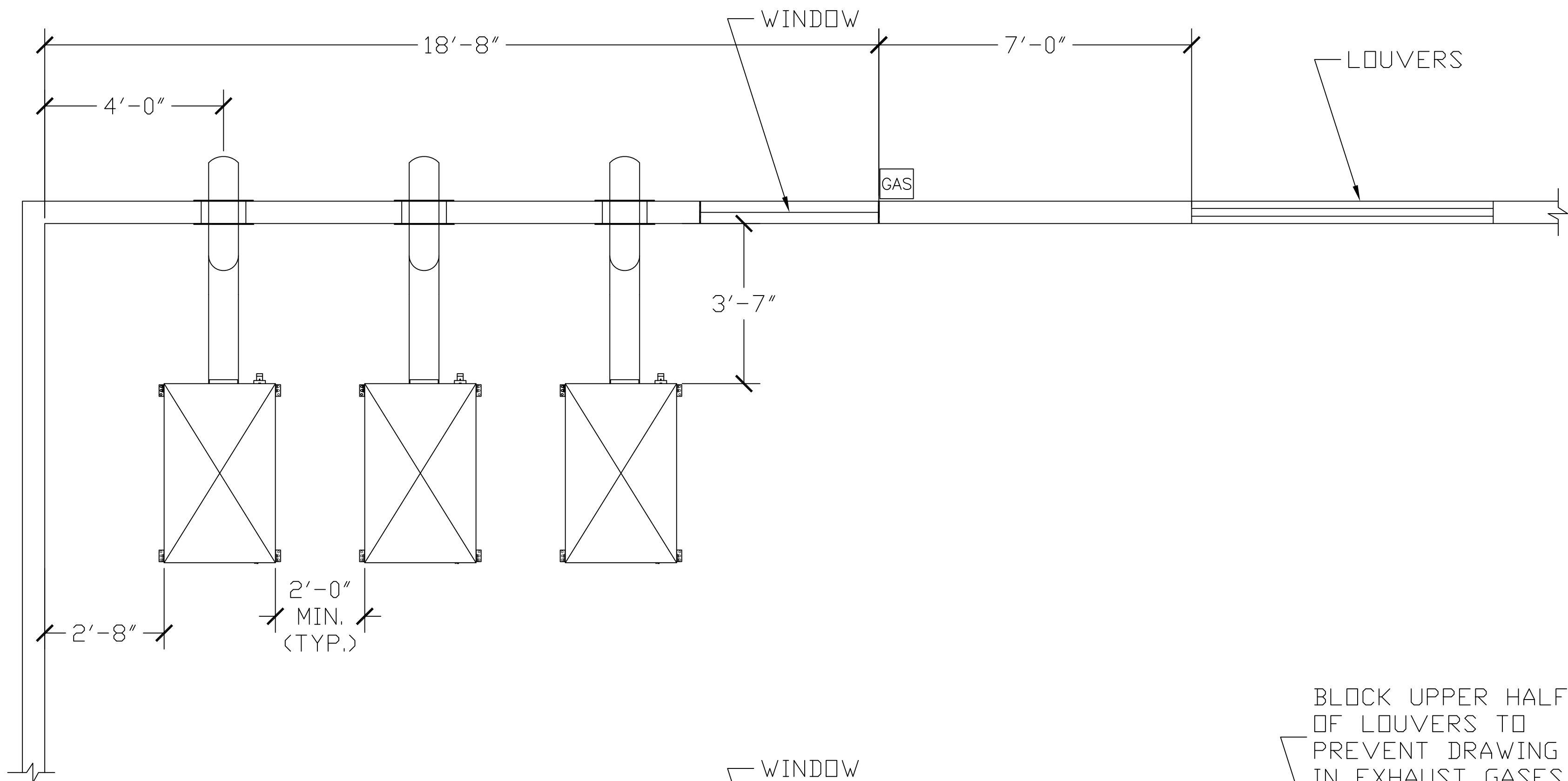
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KITH PIPING & VENTING V9

SHEET NO.
P4



KITH VENTING ALT. PLAN

SCALE: 1/2" = 1'-0"

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MICHIGAN
CITY

PROJECT NAME:
**KITH VENTING
ALT. ARRANGEMENT**
MICHIGAN
BLOOMFIELD HILLS

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**KITH PIPING &
VENTING V9**

SHEET NO.
M1