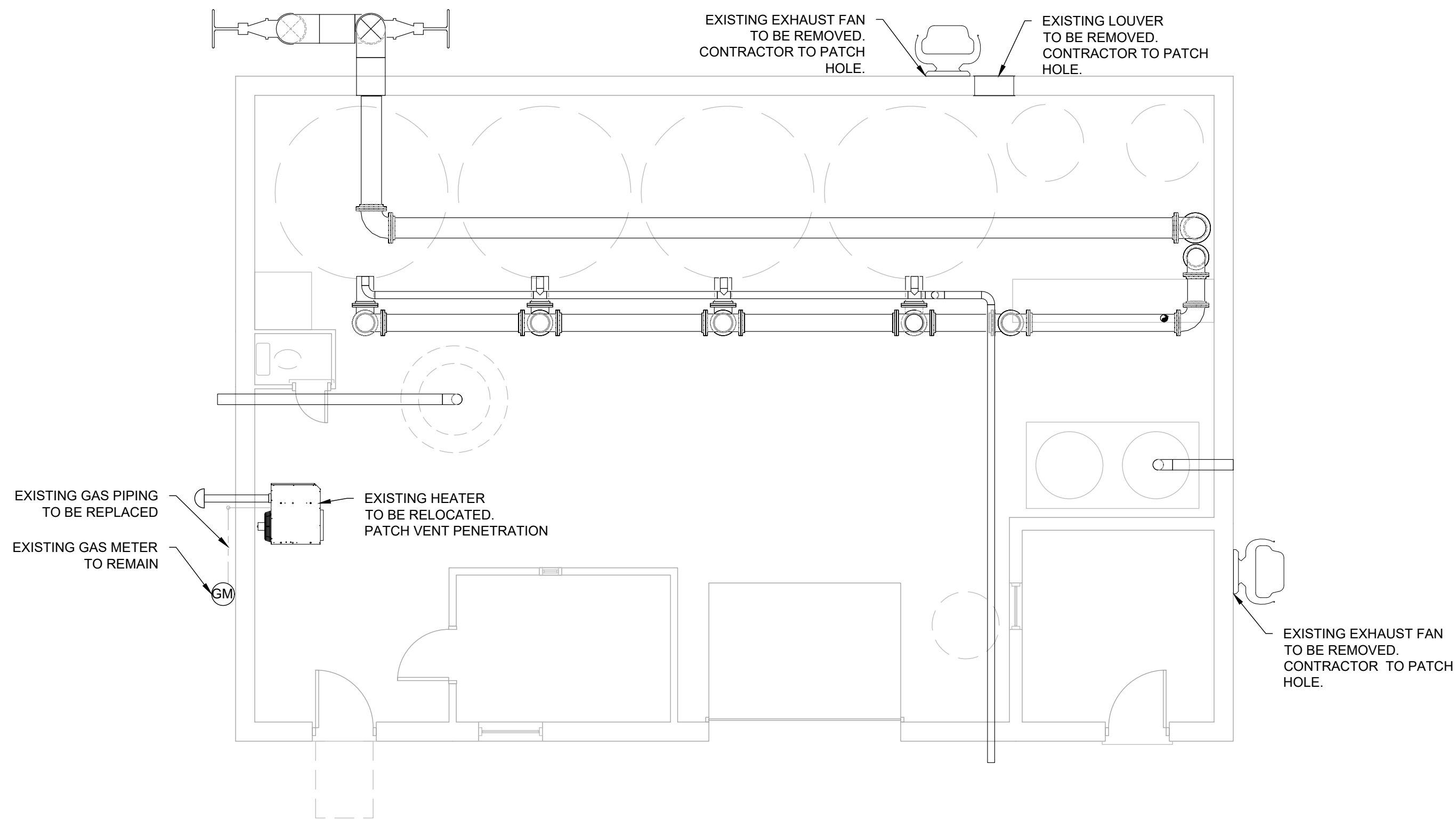
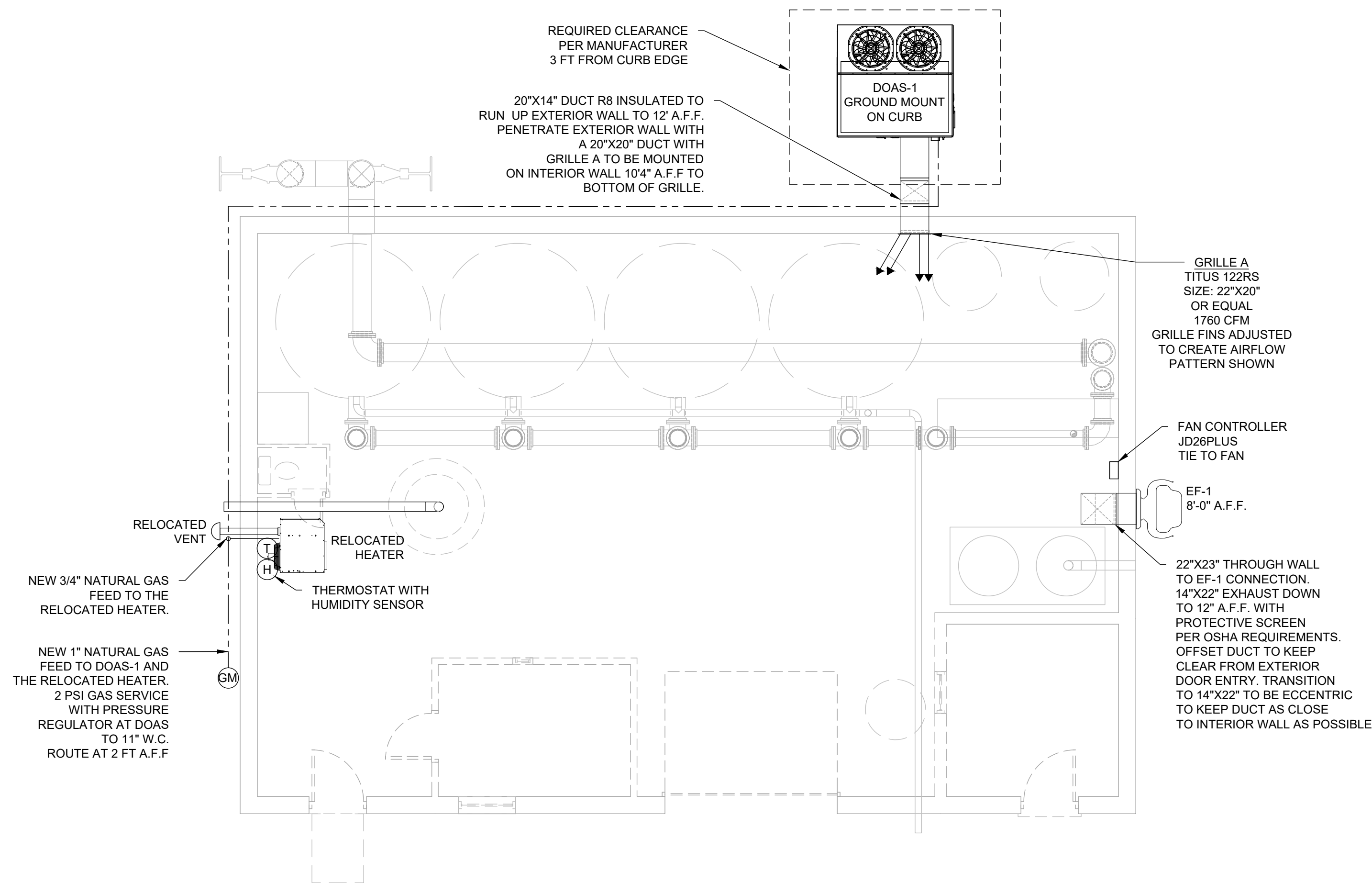


Z:\MYSTIC HARBOR\ V\PA-DEPARTMENT'S MEP\MODELS - DRAWINGS\N-100 REDESIGNING.DWG



1 EXISTING MECHANICAL LAYOUT

3/16" = 1'-0"



2 PROPOSED MECHANICAL LAYOUT

3/16" = 1'-0"

MECHANICAL LAYOUT

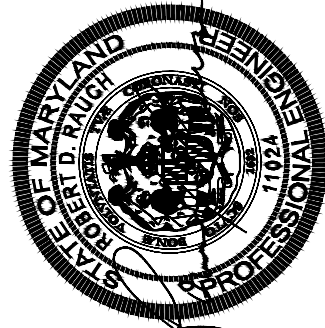
MYSTIC HARBOR - WTP HVAC

BERLIN, MARYLAND



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License No. 11024
Expiration Date: July 24, 2028

REVISIONS

REV. #	DATE	DESCRIPTION



DATE: 09/14/2026
SCALE: AS SHOWN
DRAWN BY: EEV
DESIGNED BY: HJH
APPROVED BY:

SHEET NO.:
M-100

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FAN #1 CAS-HVAC2-1200-15-13T-DDAS - HEATER

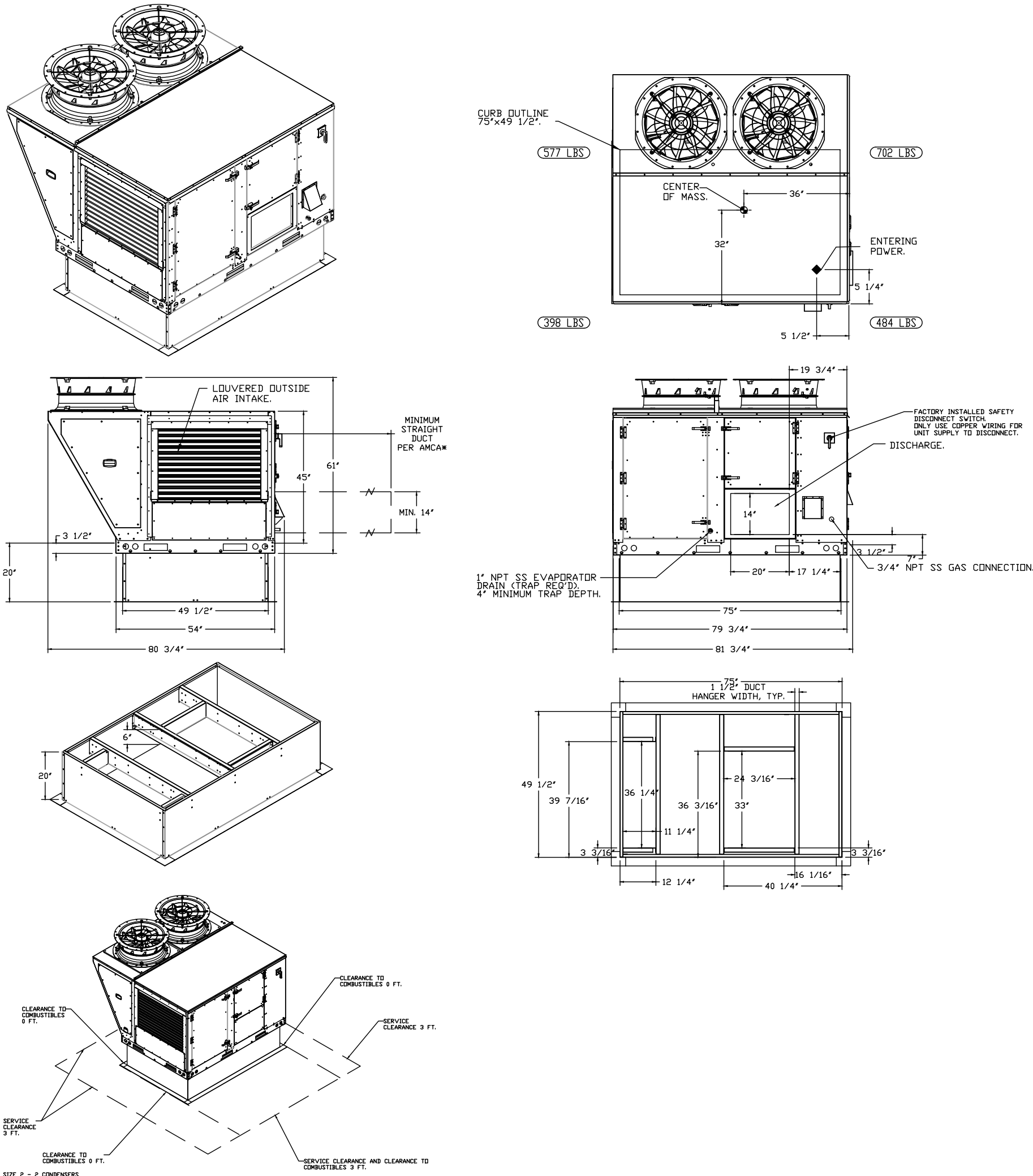
NOTES:

1. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
2. DENOTES CORNER WEIGHT.
3. ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
4. CONNECTION FROM BREAKER TO UNIT'S SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
5. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

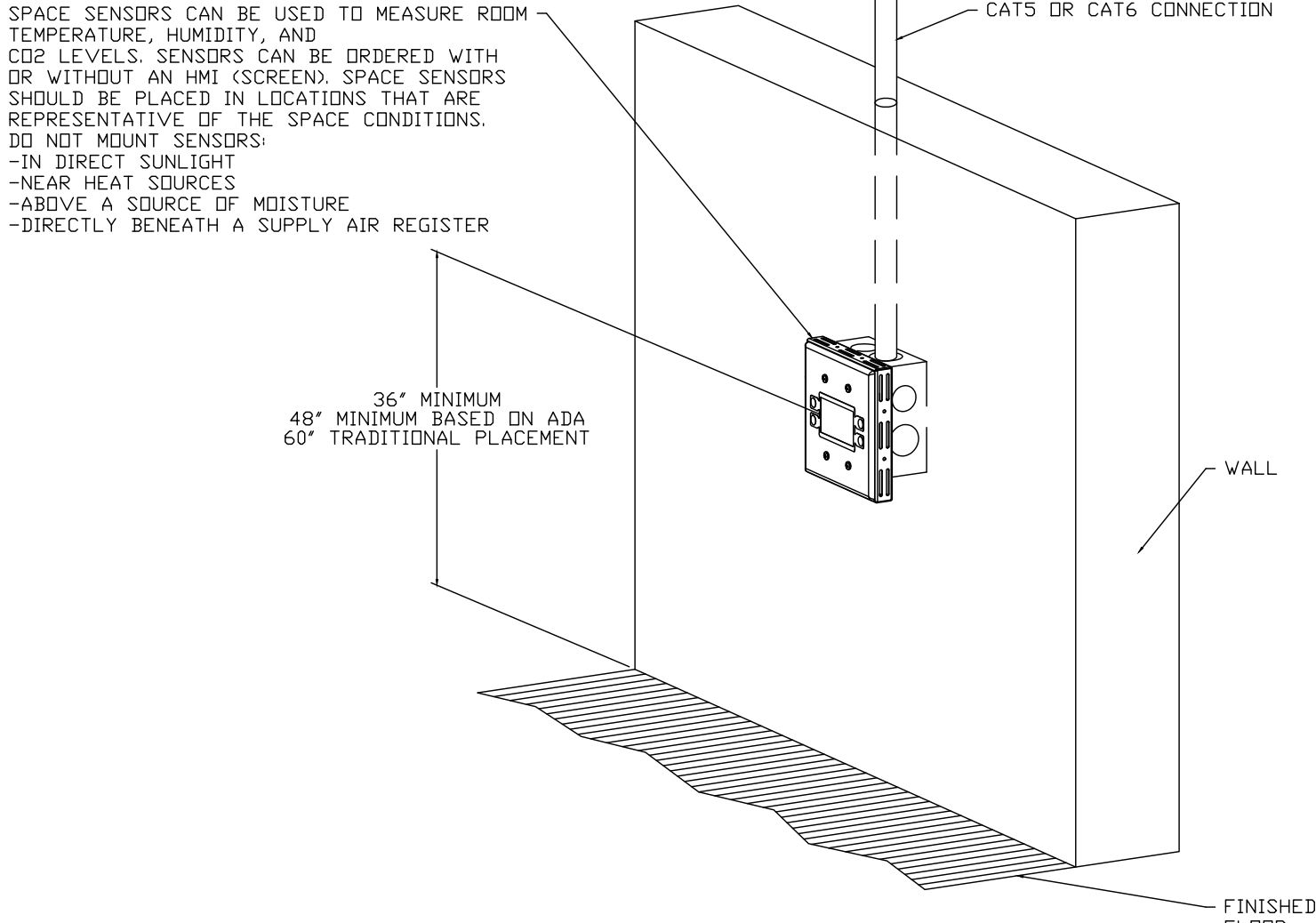
*NOTE: INTEGRAL CO2 MONITORING AND CONTROL CAPABILITIES FOR ALL SPACE MOUNTED THERMOSTATS.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN ANCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THREAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL INSTANTLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.

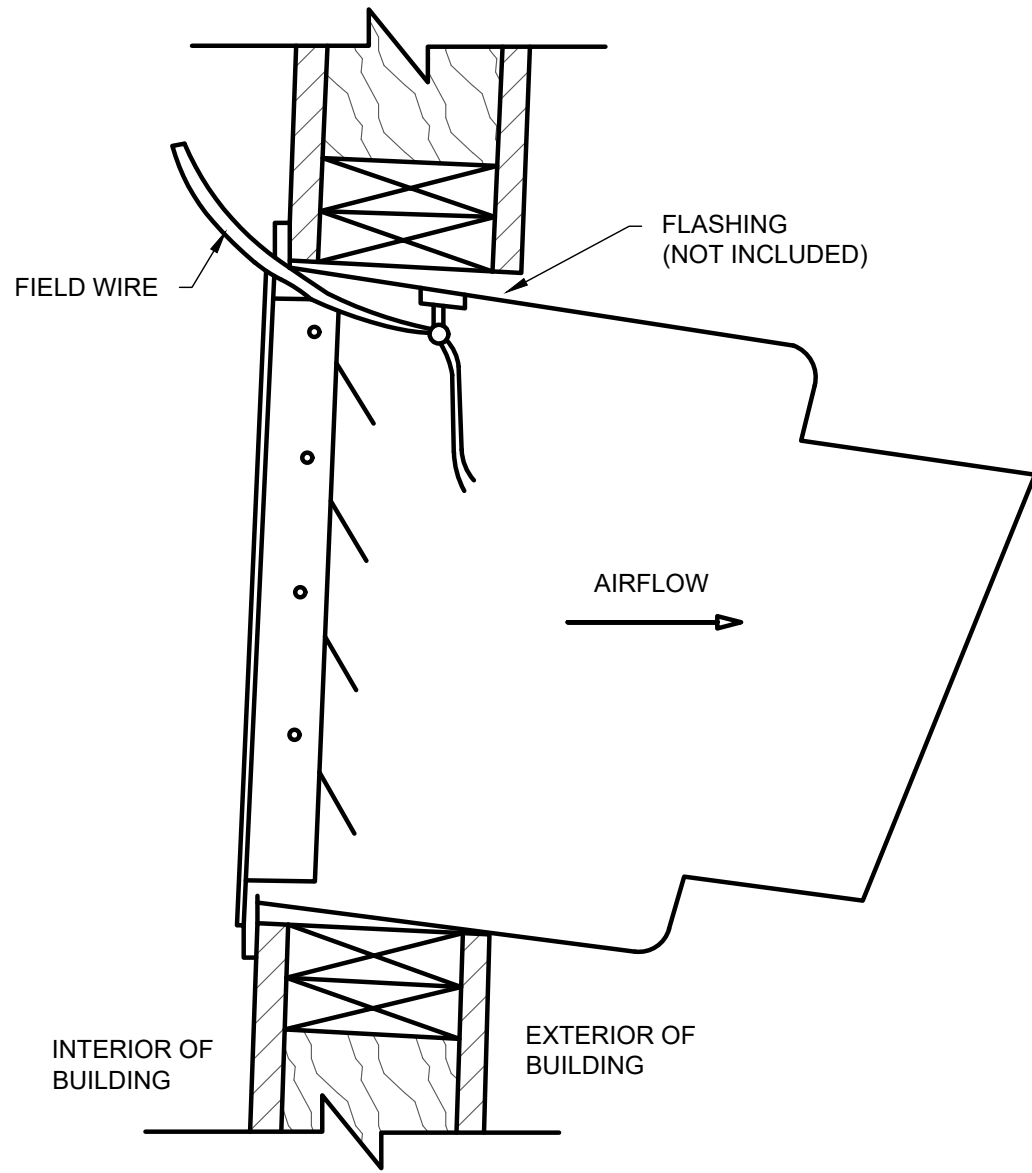
SUGGESTED SUPPLY STRAIGHT DUCT SIZE IS 20" x 14".



SPACE SENSOR MOUNTING DETAIL



2 POLY EXHUAST FAN DETAIL



NTS

1 DEDICATED OUTDOOR AIR SYSTEM FOOTPRINT CURB AND DETAILS

NTS

REVISIONS

NO.	DESCRIPTION	DATE
1		
2		
3		
4		
5		

CAPTIVE

TS

Maryland Mechanical

5523 Research Park Drive, Suite 250, Calverville, MD 21228 PHONE: (800) 888-0881 FAX: 9102272551 EMAIL: meg@captivemechanical.com

Mystic Harbour - WTP Plant - Berlin, MD

BERLIN, MD, 21811

DATE: 9/10/2026

DWG.#: 8893117

DRAWN BY: AJP-76

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

MASTER DRAWING

SHEET NO. 3

MECHANICAL DETAILS

MYSTIC HARBOR - WTP HVAC

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REGISTERED PROFESSIONAL ENGINEER

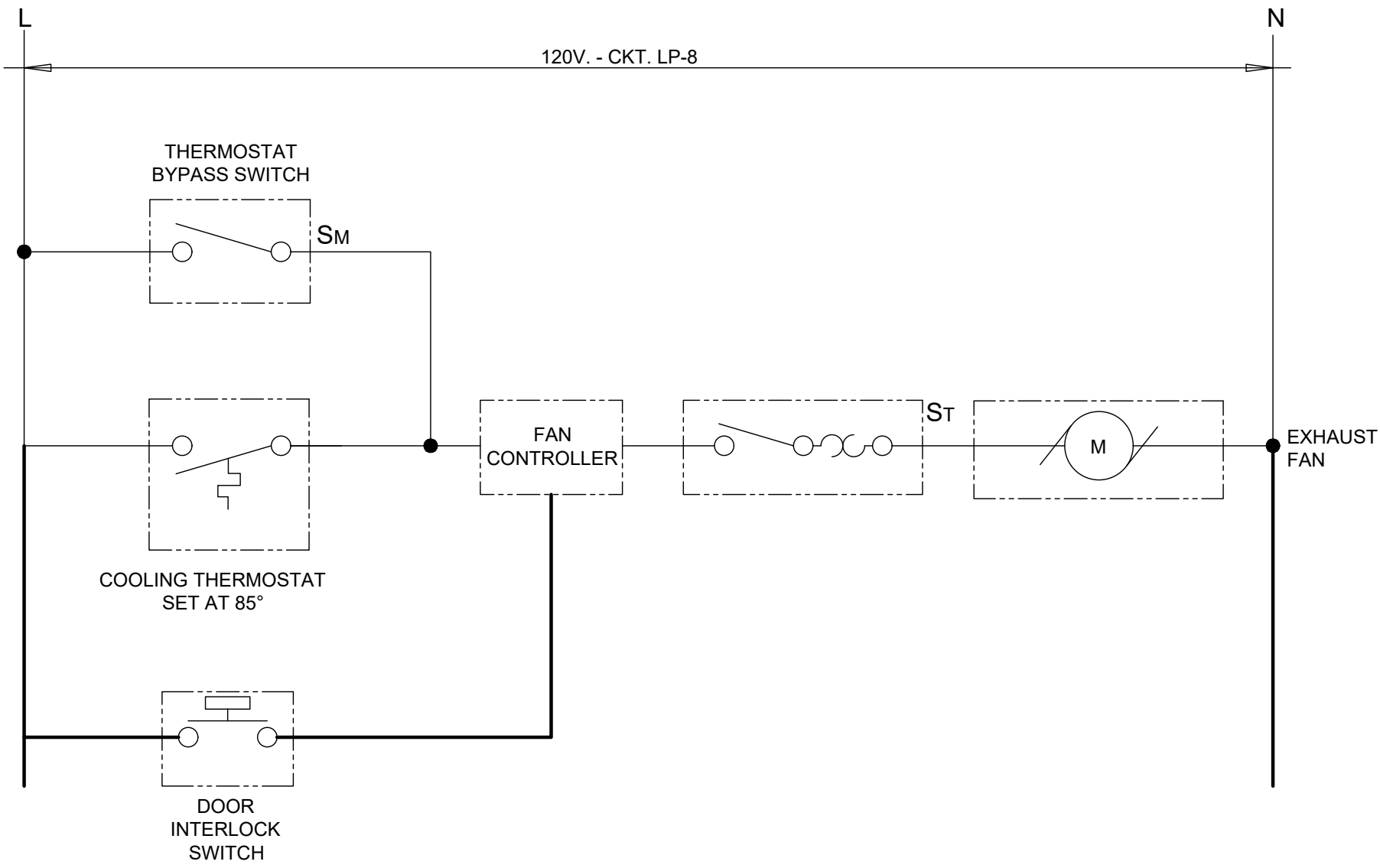
811

DATE: 09/14/2026
SCALE: AS SHOWN
DRAWN BY: EEV
DESIGNED BY: HJH
APPROVED BY:
SHEET NO.: M-400



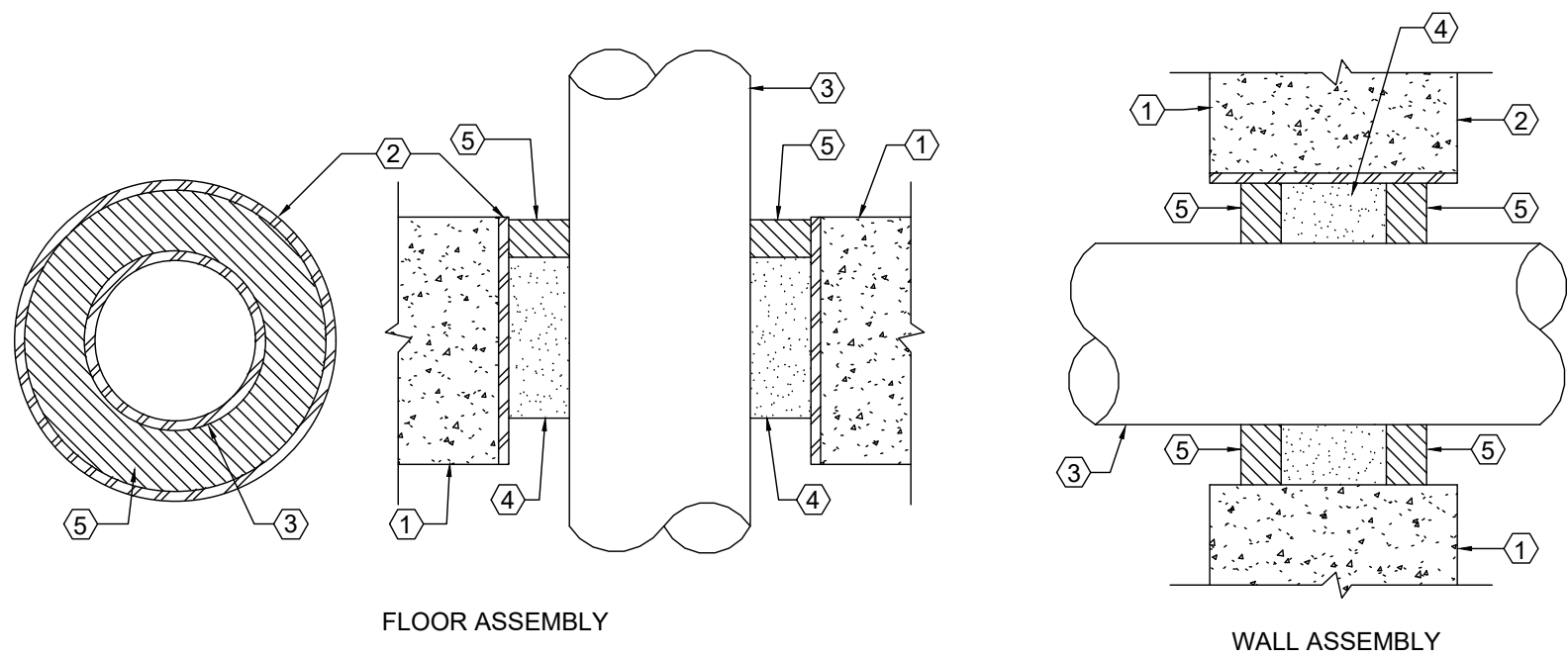
DATE	09/14/2026
SCALE:	AS SHOWN
DRAWN BY:	EEY
DESIGNED BY:	HJH
APPROVED BY:	
SHEET NO.:	
E-100	

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1 THERMOSTAT EXHAUST DETAIL

NTS

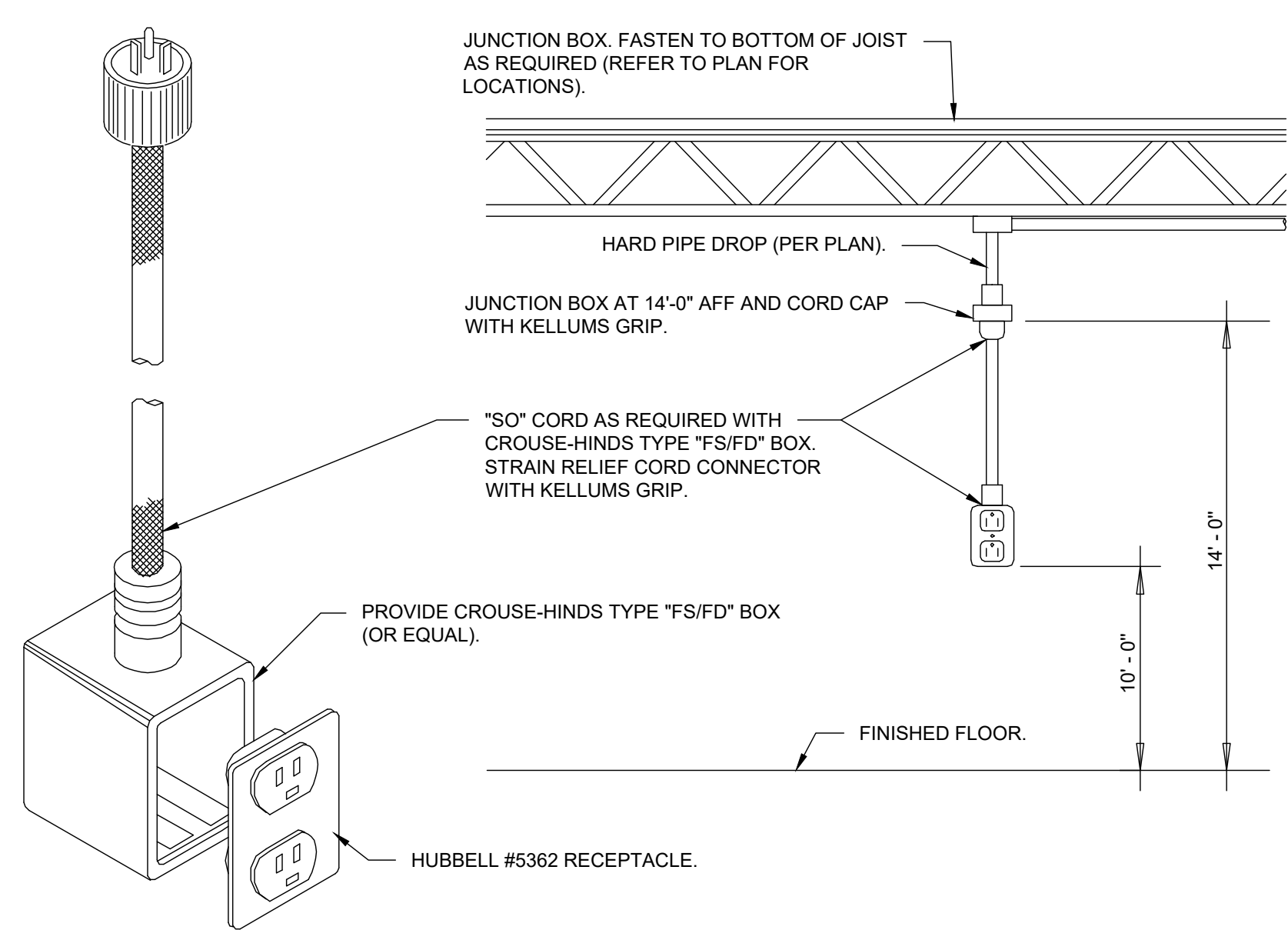


- CODED NOTES:
1. FLOOR OR WALL ASSEMBLY MINIMUM 5" THICK NORMAL WEIGHT CONCRETE FLOOR OR WALL OR MINIMUM 7-5/8" THICK MASONRY WALL HAVING A MINIMUM 2 HOUR FIRE RESISTIVE RATING WITH A NOMINAL 6" DIAMETER OPENING.
 2. STEEL PIPE SLEEVE (OPTIONAL) NOMINAL 6" DIAMETER SCHEDULE 40 OR HEAVIER STEEL PIPE SLEEVE, (2 TRADE SIZES LARGER THAN CONDUIT).
 3. STEEL OR EMT CONDUIT NOMINAL 4" DIAMETER RIGID CONDUIT CENTERED IN THE THROUGH OPENING.
 4. FORMING MATERIAL MINERAL WOOL, MINIMUM DENSITY OF 4.4 PCF FIRMLY PACKED WITHIN THE OPENING TO A NOMINAL THICKNESS OF 3" FOR FLOORS. FOR WALLS, THE MINERAL WOOL SHALL BE CENTERED IN THE OPENING.
 5. FILL, VOID OR CAVITY MATERIAL - FILL MATERIAL THAT IS TROWELED INTO THE OPENING TO A MINIMUM THICKNESS OF 1/2" INSTALLED ON BOTH SURFACES OF THE OPENING.

NOTE:
BEARING THE "UL 1429" CLASSIFICATION MARKING

2 FIRE STOP DETAIL WALL OR FLOOR

NTS



3 CORD CROP RECEPTACLE DETAIL

NTS

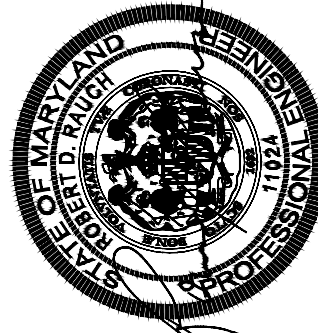
ELECTRICAL DETAILS

MYSTIC HARBOR - WTP HVAC

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DATE: 09/14/2026
SCALE: AS SHOWN
DRAWN BY: EY
DESIGNED BY: HJH
APPROVED BY:

SHEET NO.:
E-400

PANEL

P-1

VOLTAGE (L-N):

120

ENCLOSURE TYPE:

VOLTAGE (L-L):

240

MOUNTING:

SURFACE

PHASES, WIRES:

3 ϕ 4 W

AIC RATING (A):

0

MINIMUM BUS CAPACITY (A):

200 A

NOTES:

MAIN O.C. DEVICE (A):

200 A

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (VA)						POLE	TRIP AMPS	DESCRIPTION	CKT NO
				A	B	C							
1	PROCESS EQUIPMENT	20	1	456	0				1	20	PROCESS EQUIPMENT	2	
3	PROCESS EQUIPMENT	20	1		0	0			1	20	PROCESS EQUIPMENT	4	
5	PROCESS EQUIPMENT	20	1				0	0	1	20	PROCESS EQUIPMENT	6	
7	PROCESS EQUIPMENT	20	1	0	0				1	20	FLOW METER CHART RECORD	8	
9	PROCESS EQUIPMENT	20	1		0	0			1	20	PROCESS EQUIPMENT	10	
11	PROCESS EQUIPMENT	20	1				0	0	1	20	PROCESS EQUIPMENT	12	
13	HEAT	20	1	0	0				1	20	PROCESS EQUIPMENT	14	
15	LIGHTS	20	1		0	0			1	20	PROCESS EQUIPMENT	16	
17	PROCESS EQUIPMENT	20	1				0	-----	-----	-----	-----	-----	
19	OFFICE AND PUMPS	20	1	0	0				3	20	EXISTING	20,22,24	
21	PROCESS EQUIPMENT	20	1			0	0		3	20	EXISTING	20,22,24	
23	PROCESS EQUIPMENT	20	1				0	0	3	20	EXISTING	20,22,24	
25	PROCESS EQUIPMENT	20	1	0	0				1	20	PROCESS EQUIPMENT	26	
27	PROCESS EQUIPMENT	20	1		0	0			1	20	PROCESS EQUIPMENT	28	
29	TOWER LIGHT	20	1				0	-----	-----	-----	-----	-----	
31,33,35	DOAS-1	80	3	8647	-----				2	20	EF-1	34,36	
31,33,35	DOAS-1	80	3		8647	840			2	20	EF-1	34,36	
31,33,35	DOAS-1	80	3			8647	840	-----	-----	-----	-----	34,36	
39	SPARE	20	1		0	-----			0	1	20	SPARE	42
41	SPARE	20	1				0	0	1	20	SPARE	42	
				CONNECTED LOAD PHASE TOTALS (VA)									
				9103		9487		9487					
				CONNECTED LOAD		DEMAND FACTOR		DEMAND LOAD (KVA)		DEMAND LOAD			
				Cooling and Heating		1.00		25.9		26.4 KVA			
				Equipment		1.00		0.0		56.7 KVA			
				Heating		1.00		0.5		136.5 AMPS			
										PHASE BALANCE			
										A TO B			
										B TO C			
										C TO A			
				TOTAL:		26.4		26.4					
				LOAD (AMPS):		63.5		63.5					

PANEL.

ELECTRICAL SCHEDULES

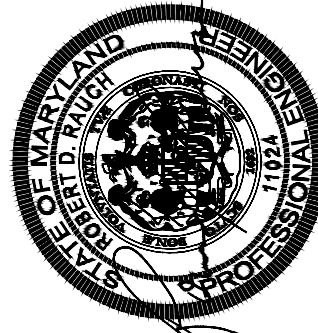
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5-22-26

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[illegible]

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SCALE:	AS SHOWN
DRAWN BY:	EEY
DESIGNED BY:	HJH
APPROVED BY:	

SHEET NO.:
E-500