

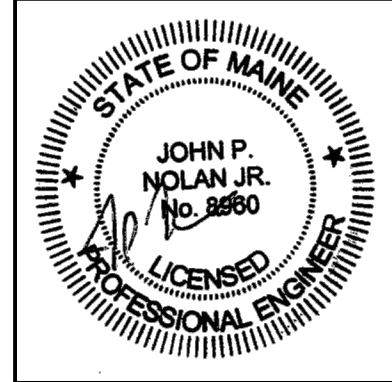
NOTES:
 - BOTTOM OF SUPPLY DUCT @ 10' 6" IN 9' CEILING AREAS
 - BOTTOM OF SUPPLY DUCT 1' 6" ABOVE CEILING IN HIGHER CEILING AREAS
 - RETURN DUCTWORK TO BE LOCATED ABOVE SUPPLY DUCTWORK
 - MAJOR BRANCHES & TAPS TO VAV'S TO BE 45 DEGREE BOOT TYPE.

HVAC DUCTWORK PLAN
 SCALE: 1/8" = 1'-0"

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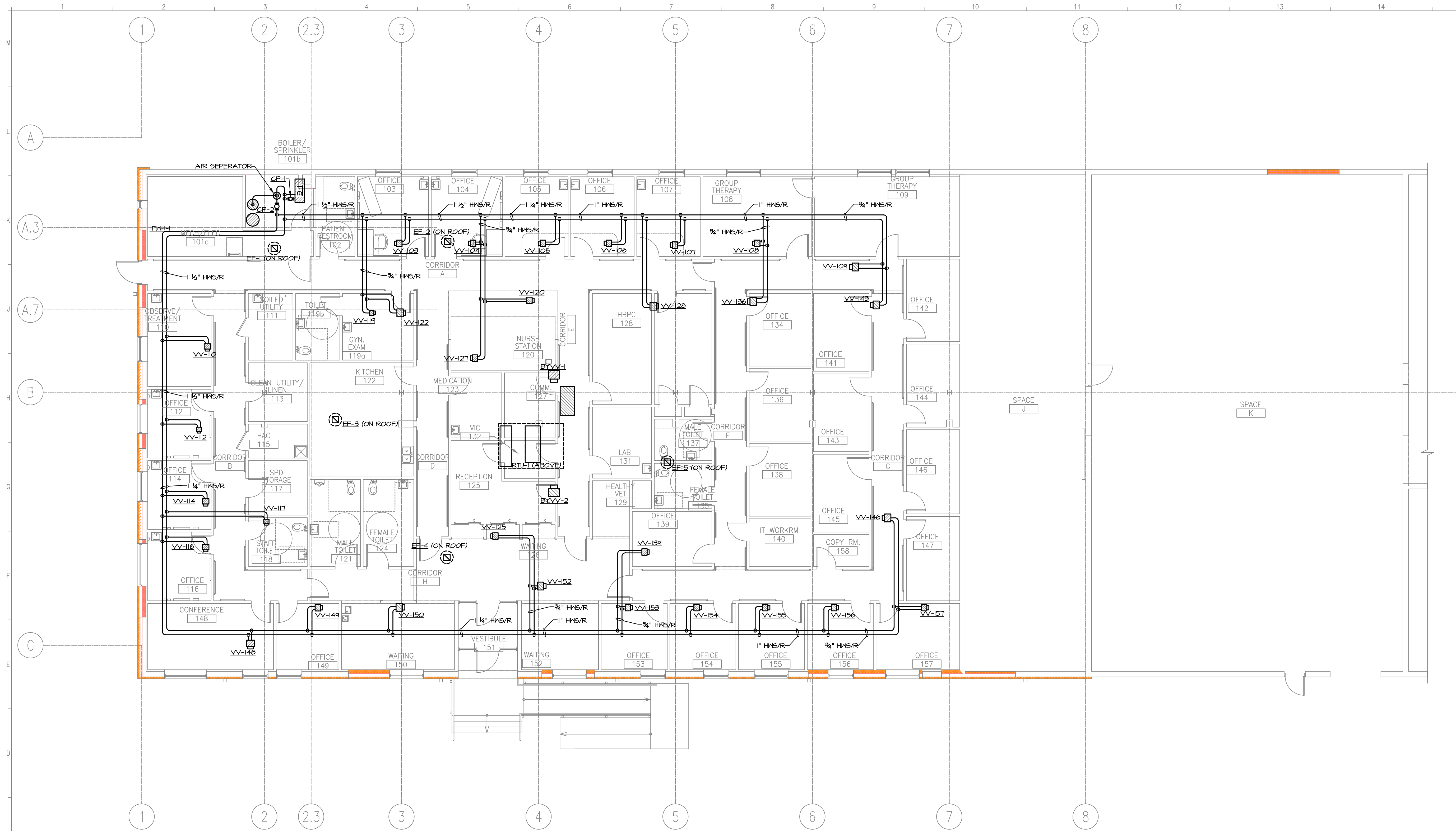
Titan Mechanical, Inc.
 Design Build Engineering - Mechanical Contracting
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 Portland, Maine 04104
 Ph. (207) 878-5223 Fax. (207) 878-5235



DEPARTMENT OF VETERAN AFFAIRS
 CLIENT
PORTLAND OFFICES
 PROJECT
HVAC DUCTWORK PLAN
 DRAWING TITLE

DATE: 11/8/10
 SCALE: 1/8" = 1'-0"
 DRAWN BY: CJM
 CHECKED BY: JPN

M100

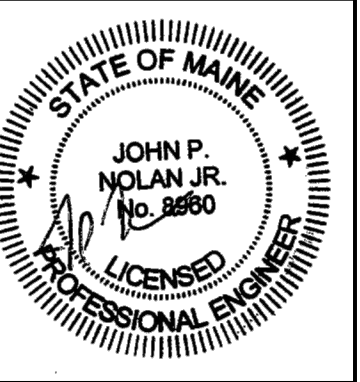


HVAC PIPING PLAN
 SCALE: 1/8" = 1'-0"

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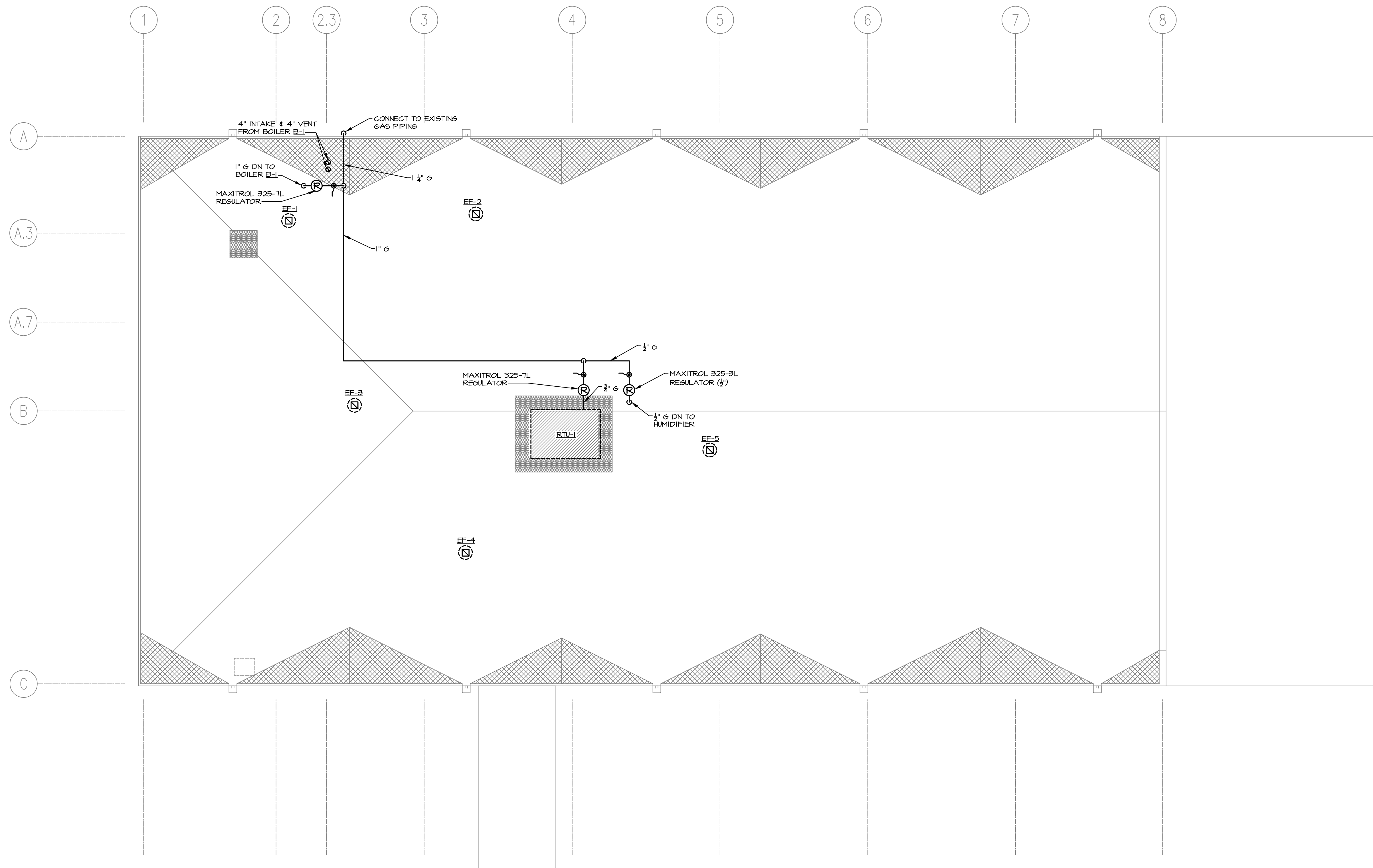
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M101

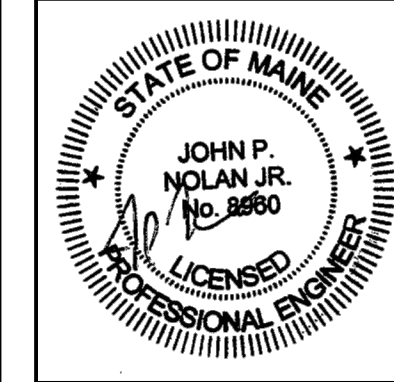


ROOFTOP MECHANICAL PLAN
 SCALE: 1/8" = 1'-0"

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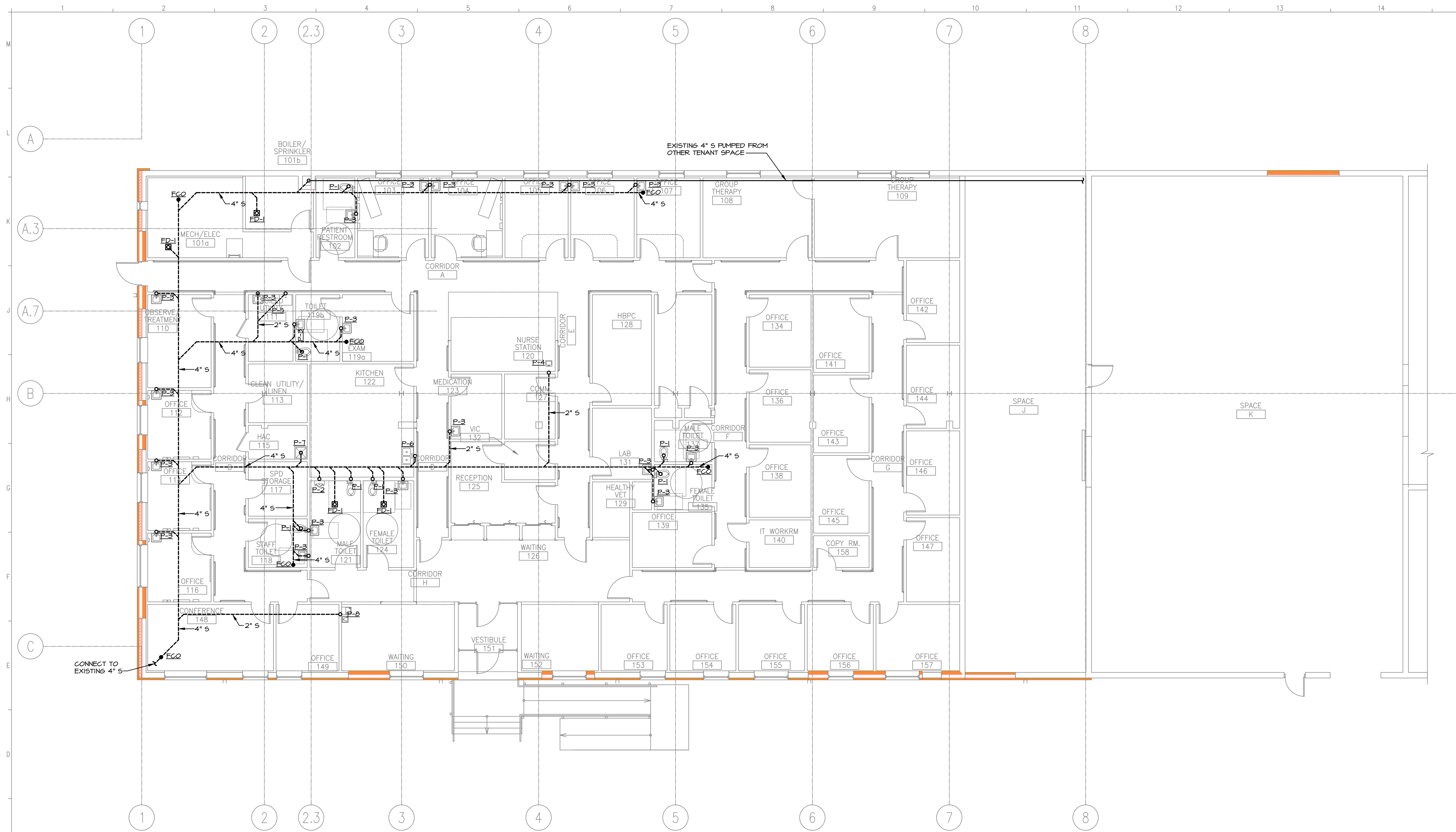
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ROOFTOP MECHANICAL PLAN
 DRAWING TITLE

DATE: 11/8/10
 SCALE: 1/8" = 1'-0"
 DRAWN BY: CJM
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M102

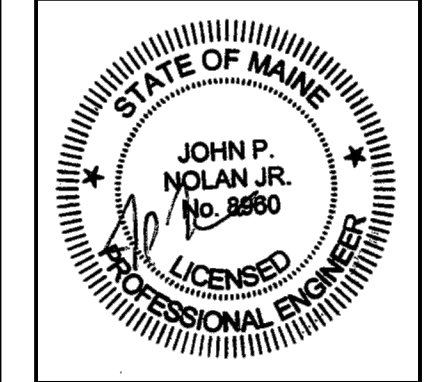


SANITARY PLUMBING PLAN
 SCALE: 1/8" = 1'-0"

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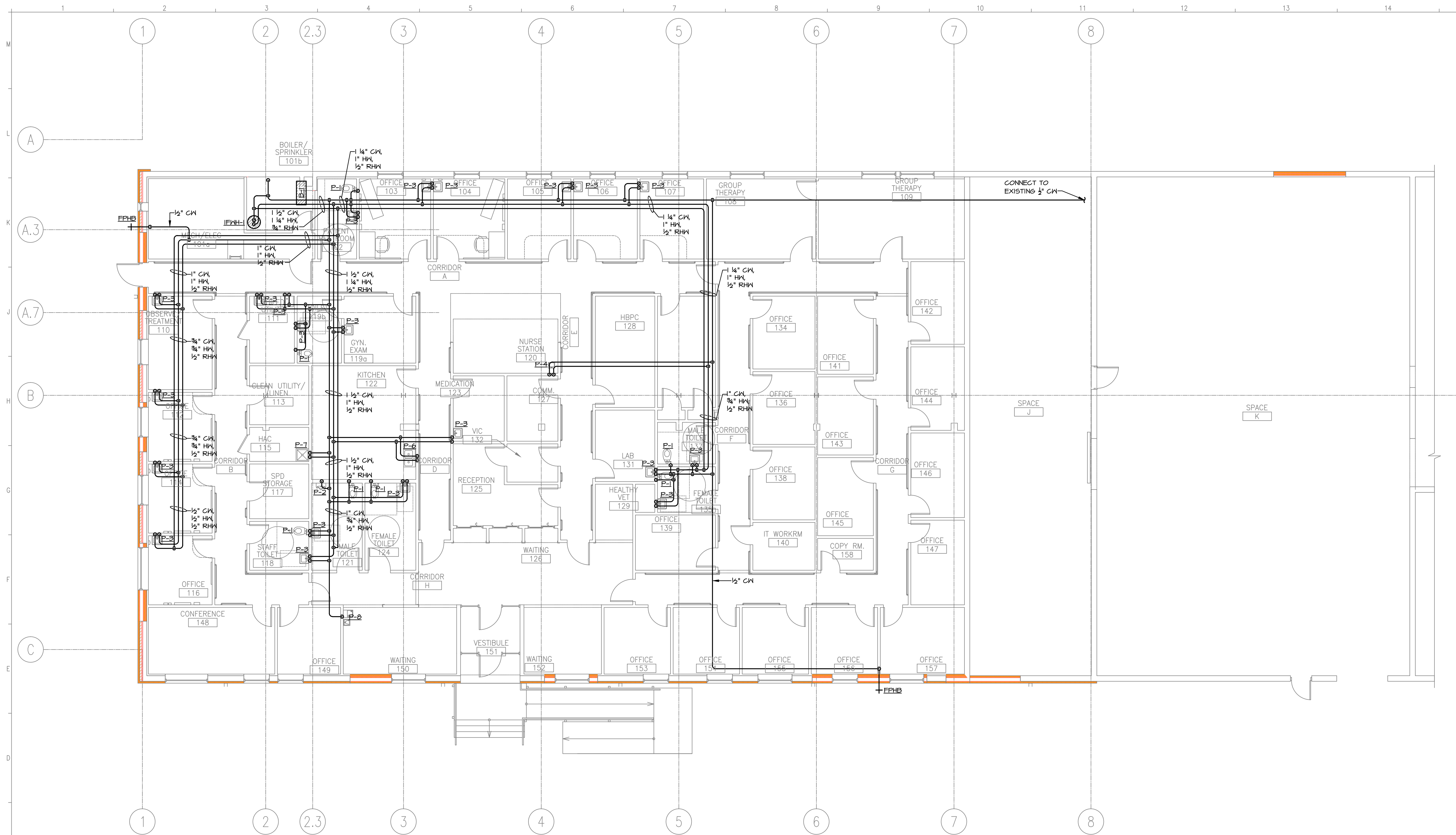
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M200

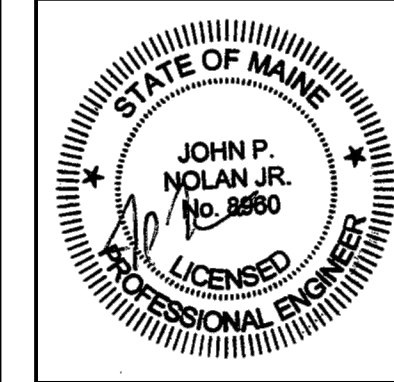


DOMESTIC PLUMBING PLAN
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DOMESTIC PLUMBING PLAN
 DRAWING TITLE

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M201

VAV BOX SCHEDULE										
TAG	SERVES	MAX CFM	MIN CFM	INLET DIA. (INCHES)	HW COIL (BTU/HR)	COIL (GPM)	CIRCUIT SETTER	PIPE RUNOUTS	MODEL SIZE	REMARKS
VAV-103	OFFICE 103	275	140	-	7,000	0.5	1/2"	1/2"	-	-
VAV-104	OFFICE 104	275	140	-	7,000	0.5	1/2"	1/2"	-	-
VAV-105	OFFICE 105	275	140	-	7,000	0.5	1/2"	1/2"	-	-
VAV-106	OFFICE 106	275	140	-	7,000	0.5	1/2"	1/2"	-	-
VAV-107	OFFICE 107	275	140	-	7,000	0.5	1/2"	1/2"	-	-
VAV-108	GROUP THERAPY 108	375	190	-	10,000	0.7	1/2"	1/2"	-	-
VAV-109	GROUP THERAPY 109	650	325	-	17,000	1.2	1/2"	3/4"	-	-
VAV-110	OBSERVE 110	420	210	-	8,000	0.5	1/2"	1/2"	-	-
VAV-112	OFFICE 112	275	140	-	7,000	0.5	1/2"	1/2"	-	-
VAV-114	OFFICE 114	275	140	-	7,000	0.5	1/2"	1/2"	-	-
VAV-116	OFFICE 116	275	140	-	7,000	0.5	1/2"	1/2"	-	-
VAV-117	SPD STORAGE	125	65	-	2,500	0.2	1/2"	1/2"	-	-
VAV-119	6YN EXAM 119	125	65	-	3,000	0.2	1/2"	1/2"	-	-
VAV-120	NURSE STATION 120	375	190	-	10,000	0.7	1/2"	1/2"	-	-
VAV-122	KITCHEN 122	370	185	-	7,000	0.5	1/2"	1/2"	-	-
VAV-125	RECEPTION 125	230	115	-	4,500	0.3	1/2"	1/2"	-	-
VAV-127	MED 123, COM 127	220	110	-	4,000	0.3	1/2"	1/2"	-	-
VAV-128	HBPC 128	450	225	-	10,000	0.7	1/2"	1/2"	-	-
VAV-136	OFFICES 134, 136, 138, IT 140	610	305	-	10,000	0.7	1/2"	1/2"	-	-
VAV-139	OFFICE 139, LAB 131	250	125	-	4,500	0.3	1/2"	1/2"	-	-
VAV-143	OFFICES 141, 143, 145	375	190	-	7,500	0.5	1/2"	1/2"	-	-
VAV-146	OFFICES 142, 144, 146, 147	620	310	-	10,000	0.7	1/2"	1/2"	-	-
VAV-148	CONFERENCE 148	375	190	-	10,000	0.7	1/2"	1/2"	-	-
VAV-149	OFFICE 149	225	115	-	7,000	0.5	1/2"	1/2"	-	-
VAV-150	WAITING 150	500	500	-	15,000	1.0	1/2"	3/4"	-	-
VAV-152	WAITING 152	650	650	-	18,000	1.2	1/2"	3/4"	-	-
VAV-153	OFFICE 153	230	115	-	7,000	0.5	1/2"	1/2"	-	-
VAV-154	OFFICE 154	230	115	-	7,000	0.5	1/2"	1/2"	-	-
VAV-155	OFFICE 155	230	115	-	7,000	0.5	1/2"	1/2"	-	-
VAV-156	OFFICE 156	230	115	-	7,000	0.5	1/2"	1/2"	-	-
VAV-157	OFFICE 157	350	175	-	10,000	0.7	1/2"	1/2"	-	-
BYV-1	RTU-1	2500	0	-	N/A	N/A	N/A	N/A	-	-
BYV-2	RTU-2	2500	0	-	N/A	N/A	N/A	N/A	-	-

ROOFTOP UNIT SCHEDULE																							
TAG	AREA SERVED	V/HZ/PH	MAX FUSE (AMPS)	MCA	WEIGHT (LBS)	CFM	EXT. SP.	% O.A.	HEATING							COOLING					REFRIGERANT	MODEL	REMARKS
									FUEL	EAT	LAT	INPUT (MBH)	OUTPUT (MBH)	EDB	EWB	LWB	LDB	TONS	EER				
RTU-1	BUILDING HVAC	460/60/3	70	59	2800	10,000	0.75	10	NG	-	-	400	324	80	67	57	59	25	11.0	R-410A	YCD30IE4	-	

GAS BOILER SCHEDULE												
TAG	SERVES	INPUT (MBH)	OUTPUT (MBH)	EFF. (%)	FUEL	BURNER (FT3/MIN)	SIZE (LXWXH)	VENT SIZE (IN Ø)	WEIGHT (POUNDS)	ELECTRIC	MOD. NO.	REMARKS
B-1	BUILDING HWS/R	399	374	93	NG	-	45"x19"x26"	4" INTAKE 4" VENT	-	115/160	HEAT TRANSFER MUNCHKIN	-

INDIRECT-FIRED WATER HEATER SCHEDULE										
TAG	SERVES	STORAGE (GAL)	DIA. (IN)	HEIGHT (IN)	WEIGHT (LBS)	FLOW (GPM)	PRESSURE DROP (FT)	180°F BOILER WATER 1ST HOUR RATING @ 115°F	MODEL	REMARKS
IFWH-1	DOM. HOT WATER	60	23 1/4	53 1/2	-	10	7.9	370	SUPERSTOR SSU-60	-

HUMIDIFIER SCHEDULE									
TAG	SERVES	REQ'D CAPACITY (LBS/HR)	CAPACITY (LBS/HR)	ELECTRIC	AMPS	FUEL	INPUT (MBH)	MODEL	REMARKS
HUM-1	RTU-1	52	75	115/160	1.8	NG	100	GTS-100	-

FIXTURE SCHEDULE						
TAG	FIXTURE	CJN	HW	WASTE	VENT	MODEL, REMARKS
P-1	ADA DUAL FLUSH WATER CLOSET	1/2"	---	3"	2"	TANK TYPE
P-2	URINAL	1/2"	---	2"	2"	W LOW FLOW FLUSH FLUSHOMETER
P-3	LAVATORY, WALL	1/2"	1/2"	1-1/2"	1-1/2"	W GOOSENECK FAUCET
P-4	S.S. DROP-IN HAND SINK	1/2"	1/2"	1-1/2"	1-1/2"	W GOOSENECK FAUCET
P-5	S.S. COUNTERTOP/ UTILITY SINK	1/2"	1/2"	2"	1-1/2"	W GOOSENECK FAUCET
P-6	ADA DOUBLE BOWL S.S. KITCHEN SINK	1/2"	1/2"	2"	1-1/2"	W GOOSENECK FAUCET
P-7	24"x24" MOP SINK	1/2"	1/2"	2"	2"	-
P-8	ADA DRINKING FOUNTAIN	1/2"	---	1-1/2"	1-1/2"	-
FPHB	FREEZE PROTECTED HOSE BIB	1/2"	---	---	---	-
FD-1	FLOOR DRAIN	---	---	2"	2"	W TRAP PRIMER

FAN SCHEDULE												
TAG	SERVES	CFM	SP (IN.G.)	V/PH/Hz	HP	WATTS	RPM	LXWXH (INCHES)	WEIGHT (POUNDS)	MOD. NO.	CONTROLS	REMARKS
EF-1	MECHANICAL RM	500	0.2	115/160	1/10	-	1550	-	-	ACME PRN100	TSTAT	ROOF-MTD
EF-2	OFFICE 104	275	0.25	115/160	1/10	-	1300	-	-	ACME PRN100	HVAC CONTROLS	ROOF-MTD
EF-3	BATHROOMS	825	0.3	115/160	1/4	-	1300	-	-	ACME PRN100E	HVAC CONTROLS	ROOF-MTD
EF-5	WAITING	1,150	0.25	115/160	1/4	-	1725	-	-	ACME PRN100E	HVAC CONTROLS	ROOF-MTD
EF-6	BATHROOMS	150	0.25	115/160	1/10	-	1550	-	-	ACME PRN100E-2	WALL SWITCH	ROOF-MTD

PUMP SCHEDULE										
TAG	SERVES	TYPE	GPM	HEAD	HP	RPM	ELECTRIC	WEIGHT (POUNDS)	MOD. NO.	REMARKS
CP-1	B-1	INLINE	35	15'	1/2	3450	120/160	7.5	TACO 2400-50	-
CP-2	HWS/R	INLINE	35	45'	1.0	-	460/360	-	TACO 1616	-
CP-3	IFWH-1	INLINE	22	18'	1/2	3450	120/160	7.5	TACO 2400-50	-
CP-4	DOM. HW RECIRC	INLINE	1.5	6'	1/40	3250	120/160	-	TACO 006B	BRONZE

EXPANSION TANK SCHEDULE										
TAG	SERVES	TOTAL TANK VOL. (GAL)	ACCEPT. VOL. (GAL)	MAX TEMP (°F)	MAX PRESSURE (PSIG)	DIA. (IN)	HEIGHT (IN)	MODEL	REMARKS	
ET-1	HWS/R	32	11.3	240	100	16	48	AMTROL SX-60V	-	
ET-2	DOM. HW	4.4	-	200	150	11	15	AMTROL ST-12	-	

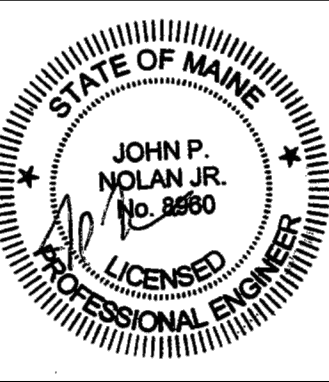
GRILLES, REGISTERS, & DIFFUSER SCHEDULE						
TAG	NECK (INCHES)	FACE SIZE (INCHES)	CFM	SP (IN.G.)	THROW (FEET)	REMARKS
SD-1	8"ø	24x24	0-210	0.05	-	LAY-IN
SD-2	10"ø	24x24	211-410	0.05	-	LAY-IN
RG-1	-	12x12	0-275	0.05	-	3/4" SPACED BLADES, 45°
RG-2	-	24x24	276-1000	0.05	-	3/4" SPACED BLADES, 45°
RG-3	-	48x24	1001-2000	0.05	-	3/4" SPACED BLADES, 45°
EG-1	-	12x12	0-275	0.05	-	3/4" SPACED BLADES, 45°
EG-2	-	24x24	276-1000	0.05	-	3/4" SPACED BLADES, 45°

NOTES: ALL GRD'S MAX NG=30
ALL UNITS SHALL BE ANEMOSTAT OR EQUAL
ALL SD'S SHALL HAVE EQUALIZING VANES, FLAT WHITE FINISH, AND BE 4-WAY BLOW PATTERN.

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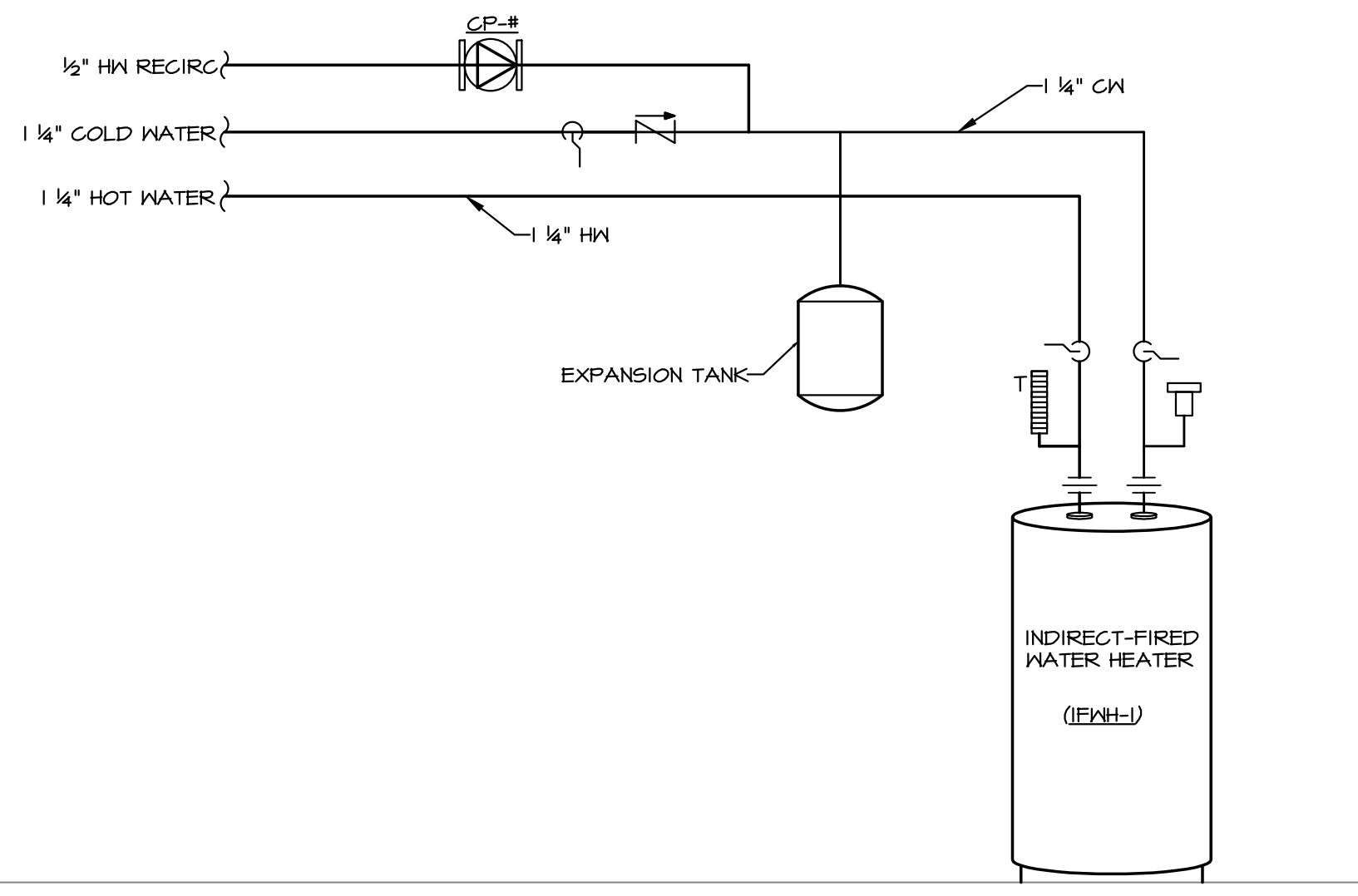
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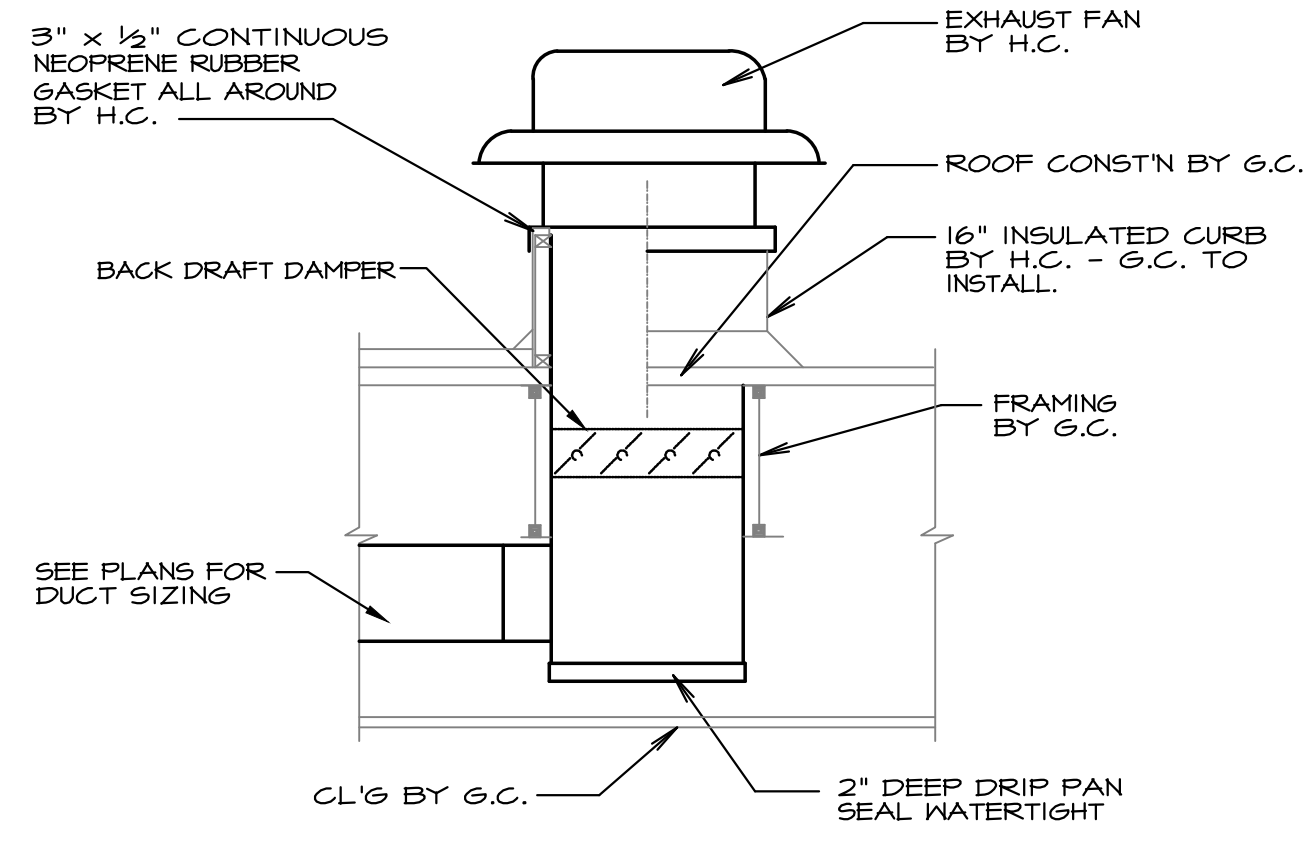
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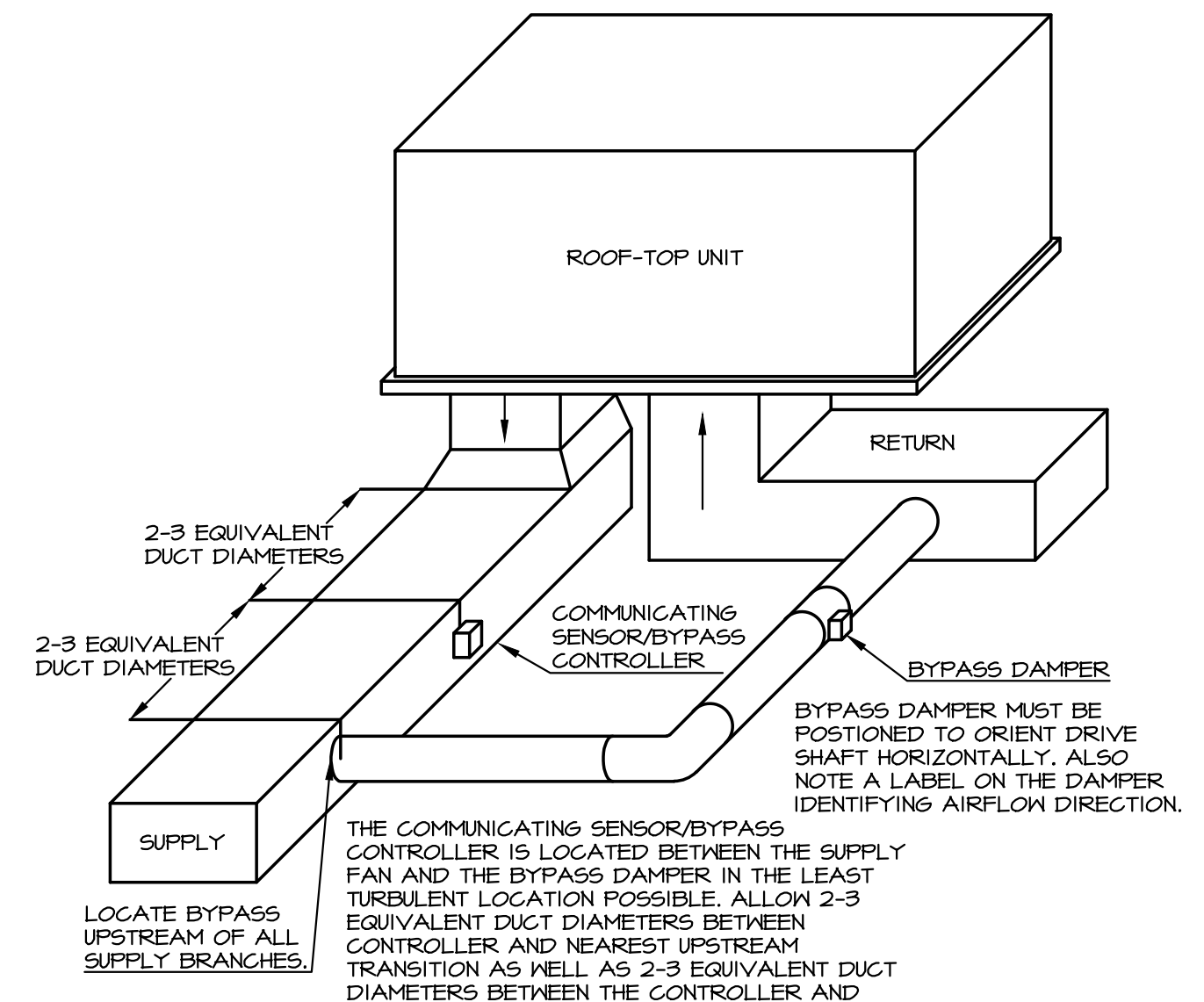
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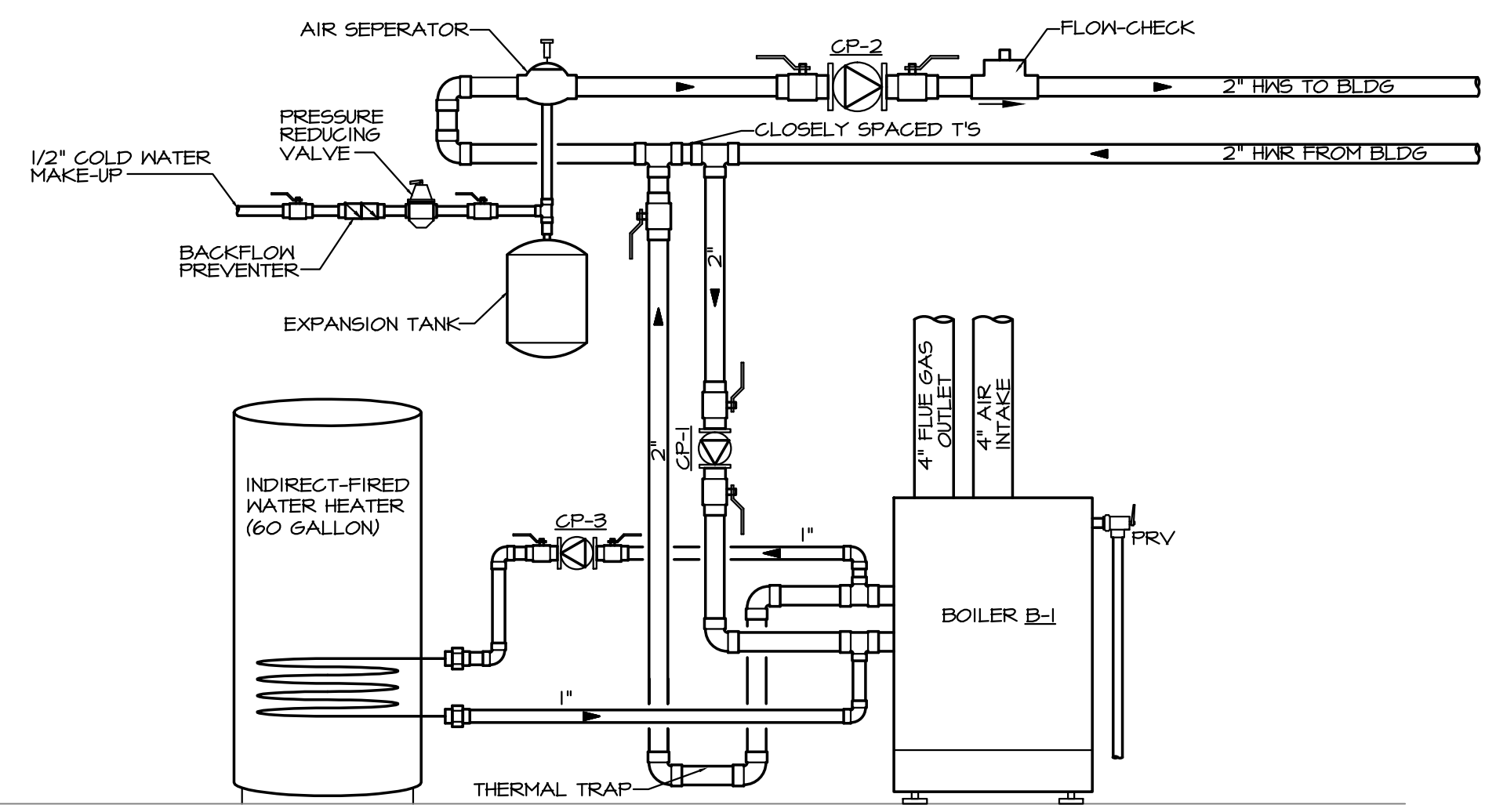
DOMESTIC HOT WATER PIPING DETAIL



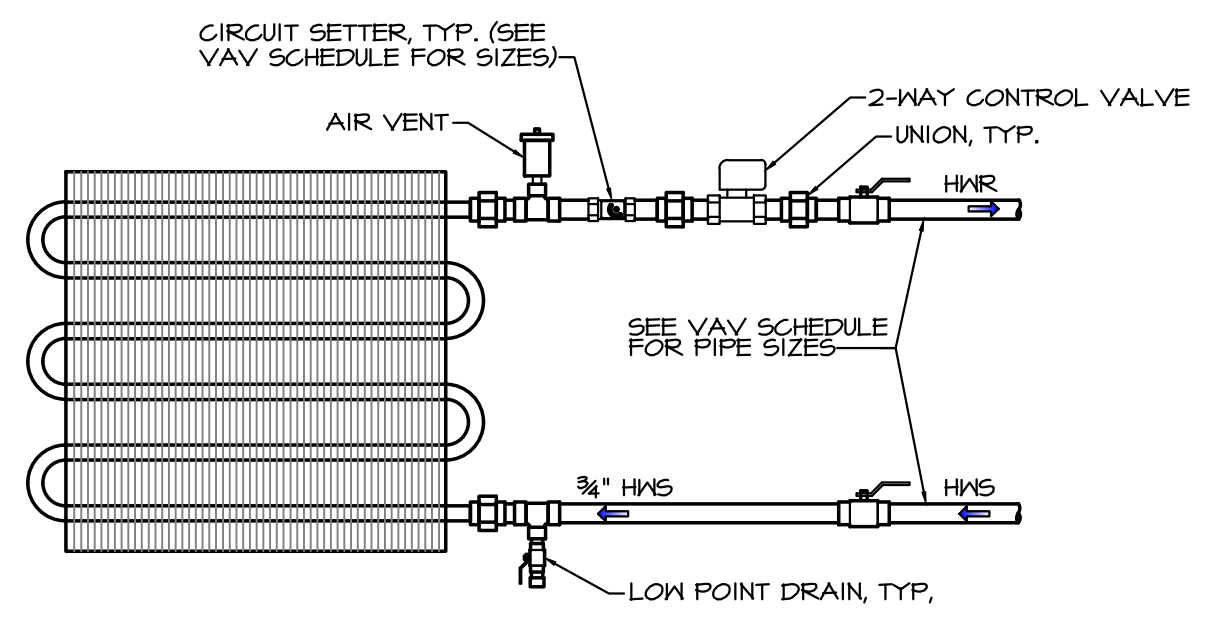
ROOF EXHAUST FAN



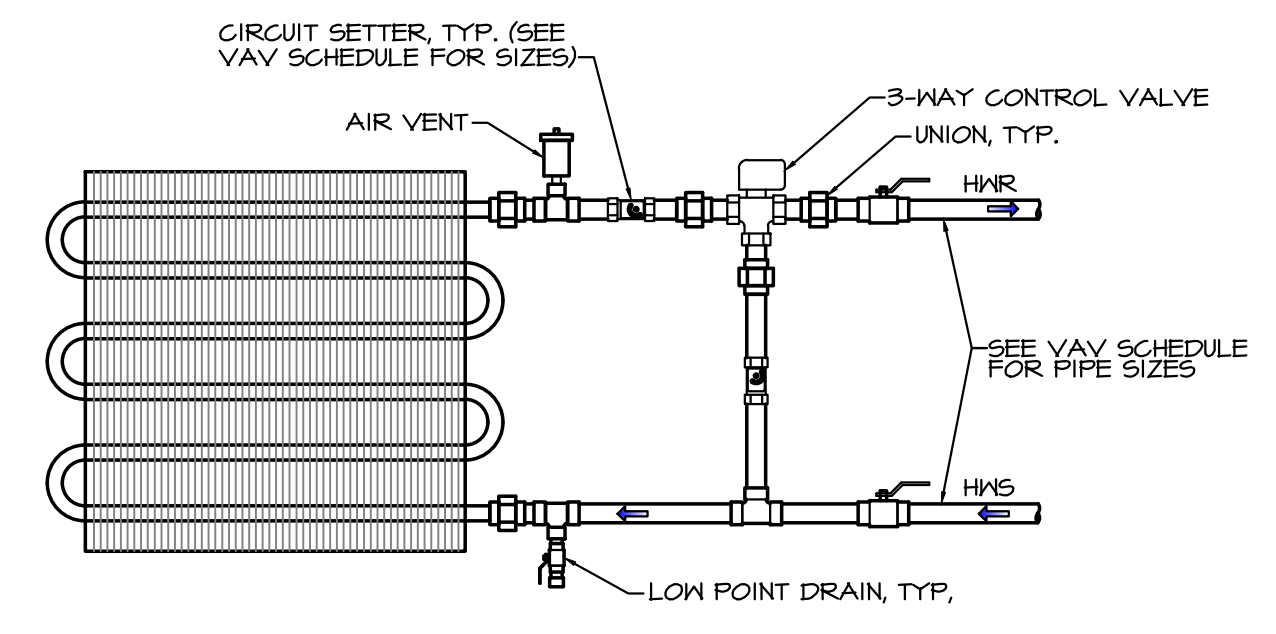
COMMUNICATING SENSOR/BYPASS CONTROL & BYPASS DAMPER INSTALLATION DETAIL



BOILER PIPING SCHEMATIC
SCALE: NONE



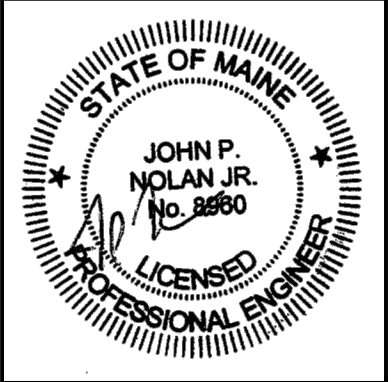
VAV HW COIL PIPING DETAIL
SCALE: NONE



VAV HW COIL PIPING DETAIL (VV-146 & VV-143)
SCALE: NONE

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 PROJECT: **MECHANICAL DETAILS**
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