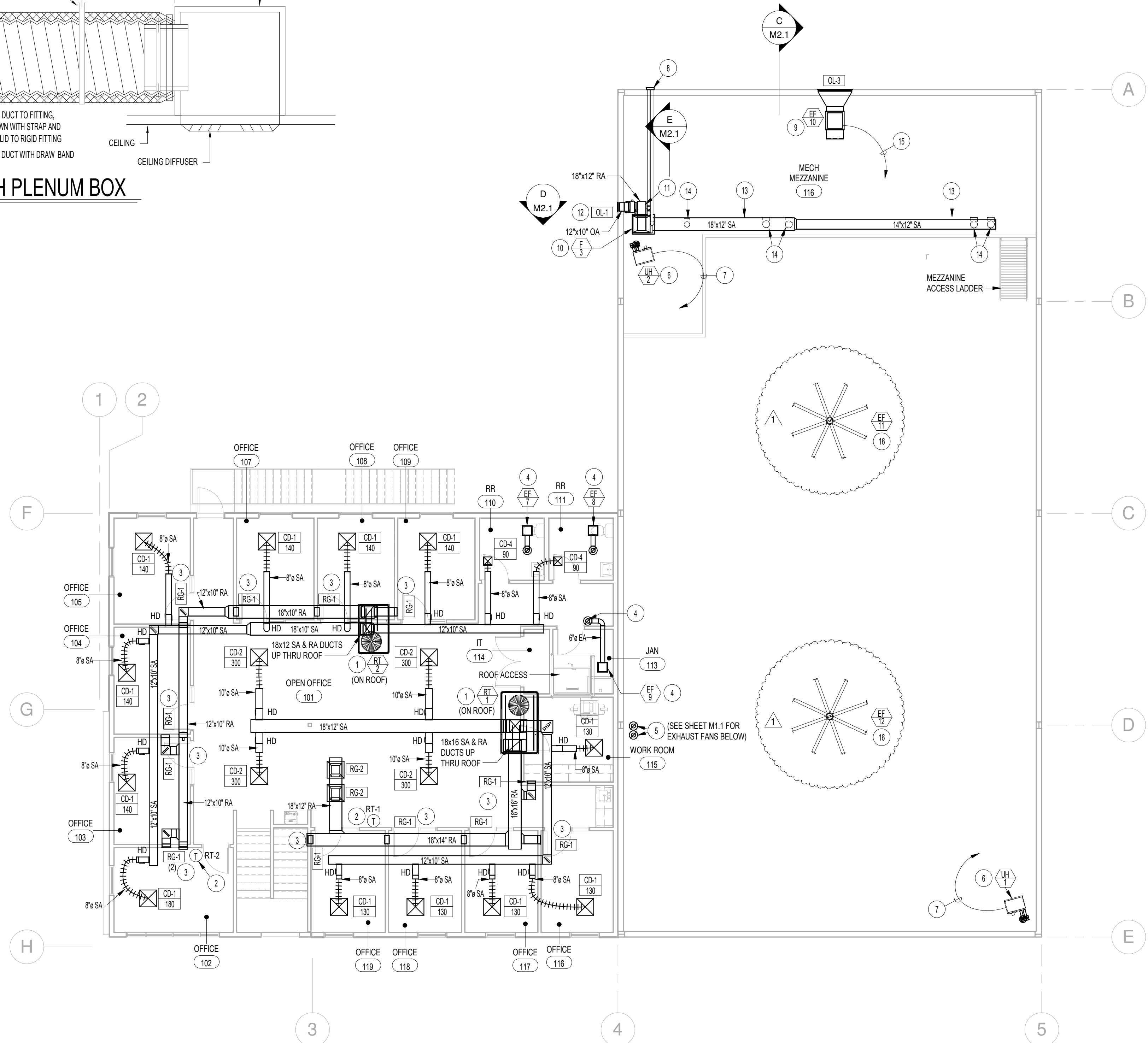


CEILING DIFFUSER DETAIL WITH PLENUM BOX
NO SCALE



1 UPPER LEVEL MECHANICAL PLAN
1/8" = 1'-0"

PLAN NOTES:

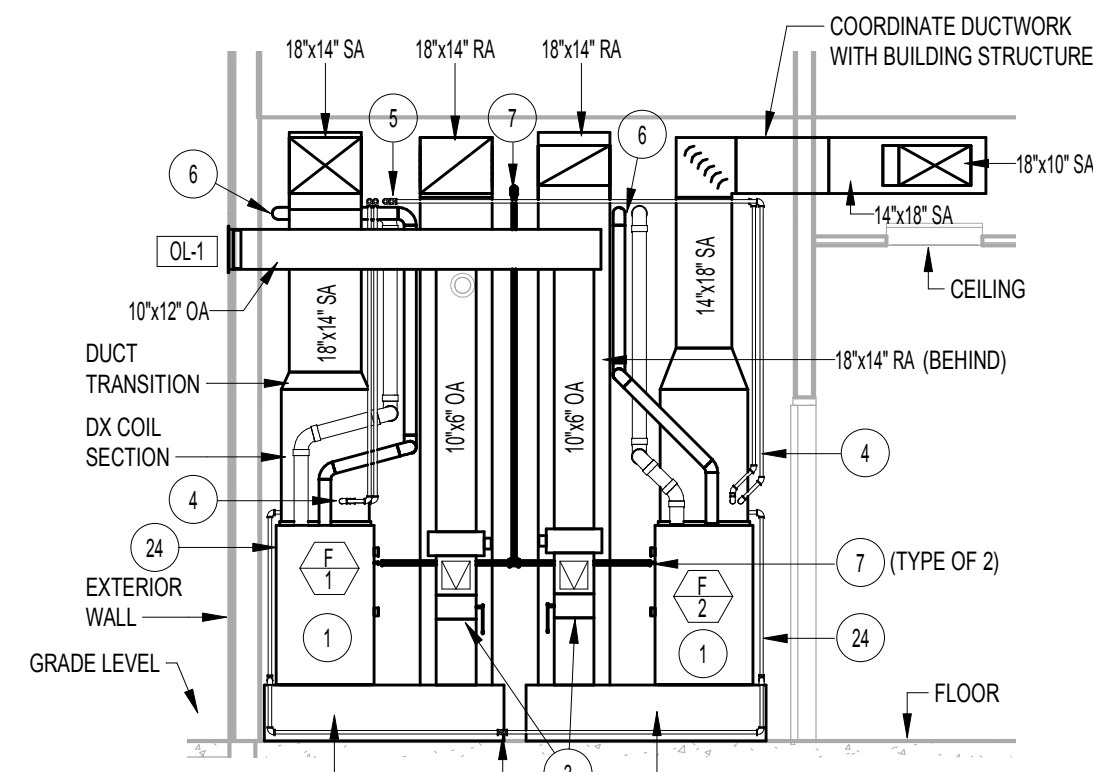
- 1 PROVIDE AND INSTALL NEW HI/AC ROOF-TOP UNIT AS SPECIFIED. DROP DUCTWORK DOWN THRU ROOF AND RUN AS SHOWN. COORDINATE ROOF-TOP UNIT AND DUCT DROPS WITH ROOF STRUCTURE.
- 2 MOUNT THERMOSTAT ON WALL AND CONNECT TO CORRESPONDING ROOF-TOP UNIT AS INDICATED.
- 3 MOUNT RG-1 RETURN GRILLE AT 6" ABOVE FLOOR. RISE 12x3-1/2 UNLINED DUCT UP IN WALL CAVITY TO ABOVE CEILING. REFER TO DETAIL B.M3.1 FOR TYPICAL INSTALLATION.
- 4 PROVIDE AND INSTALL CEILING MOUNTED EXHAUST FAN AS SPECIFIED. RUN 6" DIAMETER DUCT THRU CEILING SPACE AS SHOWN TO ROOF. CAP. COORDINATE DUCT WITH OTHER DUCTWORK AND PIPING. REFER TO DETAIL D.M3.1 FOR TYPICAL INSTALLATION.
- 5 RISE 8" DIAMETER DUCT UP THRU ROOF WITH WEATHER CAP. EXHAUST DUCT TERMINATION TO BE 10'-0" MINIMUM FROM ANY AIR INTAKE.
- 6 PROVIDE AND INSTALL GAS FIRED SEPARATED COMBUSTION UNIT HEATER AS SPECIFIED. MOUNT AT 20'-0" ABOVE FLOOR AND SUPPORT FROM ROOF STRUCTURE. RISE (2) 4" DIAMETER VENT UP THRU ROOF WITH CONCENTRIC TYPE FITTING. REFER TO DETAIL P.M3.1 FOR TYPICAL INSTALLATION.
- 7 CONNECT UNIT HEATER TO WALL MOUNTED THERMOSTAT. REFER TO SHEET M1.1 FOR THERMOSTAT LOCATION.
- 8 RUN (2) 3" DIAMETER FURNACE VENT AS SHOWN. EXTEND THRU EXTERIOR WALL WITH FLAT PLATE TYPE VENT. VENT TERMINATION TO BE 10'-0" MINIMUM FROM ANY OUTSIDE AIR INTAKE. REFER TO DETAIL H.M3.1 FOR TYPICAL FLAT PLATE VENT INSTALLATION.
- 9 PROVIDE AND INSTALL IN-LINE EXHAUST FAN AS SPECIFIED. MOUNT AS HIGH AS POSSIBLE AND SUPPORT FROM ROOF STRUCTURE.
- 10 PROVIDE AND INSTALL DOWNFLOW FURNACE AS SPECIFIED. MOUNT ON MEZZANINE FLOOR WITH 14" HIGH PLENUM BASE. REFER TO DETAIL F.M3.1 FOR PLENUM BASE CONSTRUCTION.
- 11 RISE 18x12 RETURN DUCT UP THRU MEZZANINE FLOOR. RISE UP AND CONNECT TO TOP OF FURNACE. SEE SHEET M1.1 FOR RETURN GRILLE IN MAIN LEVEL CEILING.
- 12 MOUNT OUTSIDE AIR LOUVER IN WALL AS HIGH AS POSSIBLE. CONNECT 10x6 DUCT TO RETURN DUCT. PROVIDE MOTORIZED DAMPER, DUCT ACCESS DOOR, AND MANUAL BALANCING DAMPER. BALANCE TO 300 CFM MAXIMUM. REFER TO DETAIL E.M3.1 FOR TYPICAL DAMPER INSTALLATION.
- 13 CONNECT SUPPLY AIR DUCT TO PLENUM BASE BELOW FURNACE. RUN DUCT ALONG MEZZANINE FLOOR AS SHOWN. KEEP DUCT TIGHT TO WALL.
- 14 DROP SUPPLY BRANCH DUCT DOWN THRU MEZZANINE FLOOR AND RUN THRU FLOOR JOISTS. SEE SHEET M1.1 FOR CONTINUATION OF BRANCH DUCTS. PROVIDE BALANCING DAMPER IN TAKE-OFF WITH ACCESSIBLE CONTROL LEVEL. SEE DETAIL ON THIS SHEET.
- 15 INTERLOCK EXHAUST FAN WITH (2) MAKE UP AIR LOUVERS NEAR FLOOR. REFER TO SHEET M1.1 FOR LOUVER AND DAMPER LOCATIONS.
- 16 PROVIDE AND INSTALL 12'-0" DIAMETER (LOW SPEED HIGH VOLUME) CIRCULATING FAN AS SPECIFIED. SUPPORT FAN FROM BOTTOM OF BAR JOISTS IN ROOF. MOUNT AT 20'-0" ABOVE FLOOR. SEE DETAIL E.M3.2 FOR TYPICAL INSTALLATION.

NEW OFFICE BUILDING FOR:
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TWIN FALLS, ID
UPPER LEVEL MECHANICAL PLAN

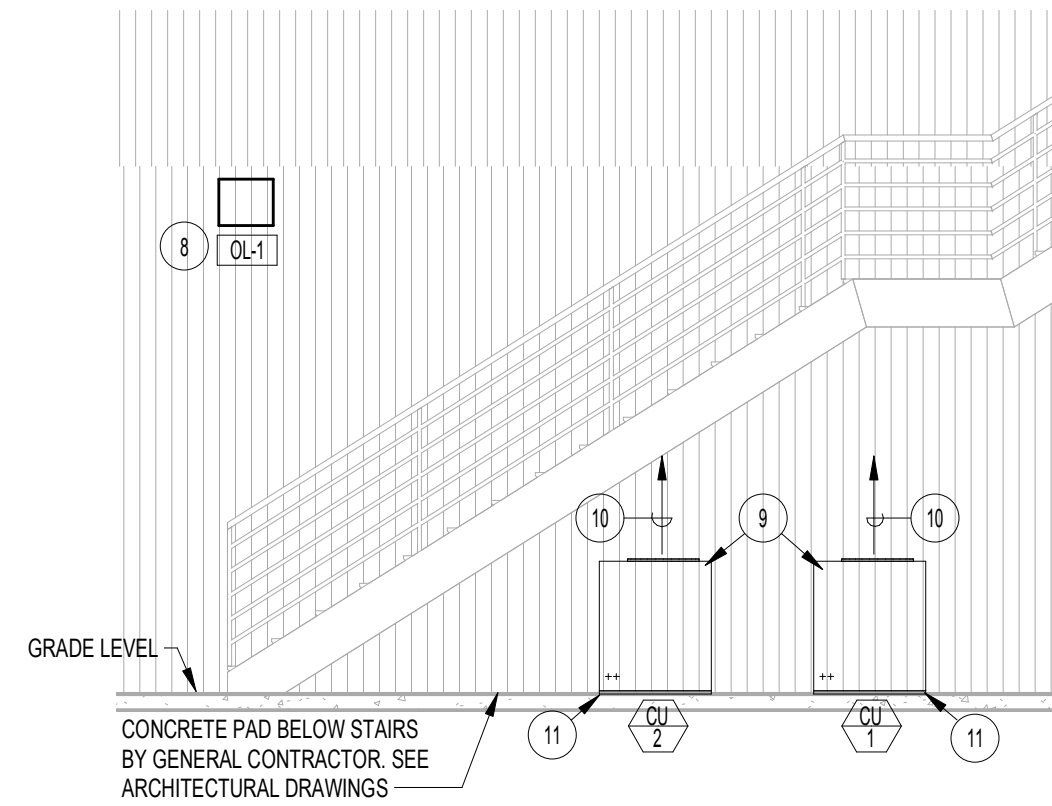
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 ESA JOB NUMBER: 21047

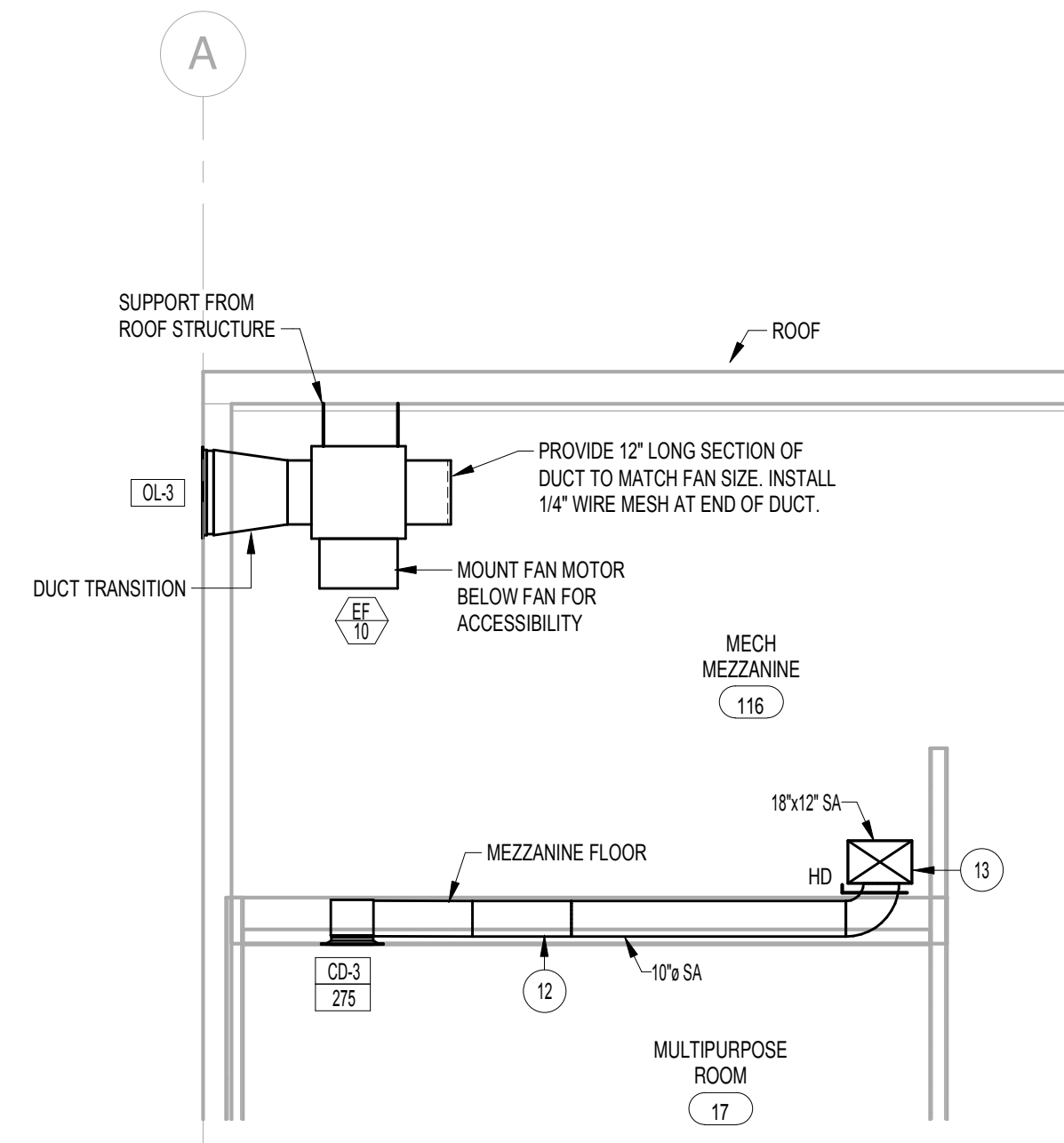
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M1.2



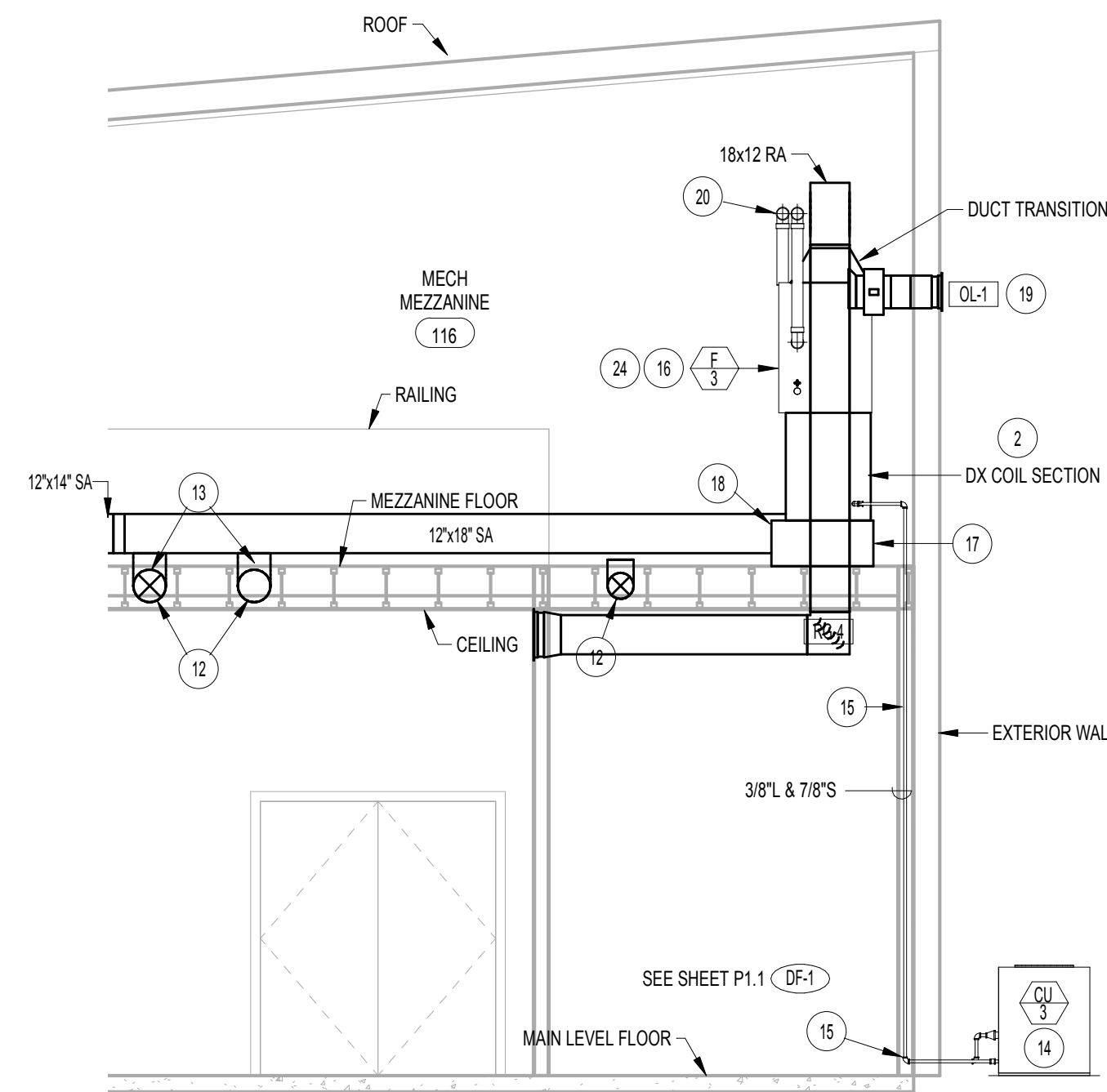
A MECHANICAL SECTION A
1/4" = 1'-0"



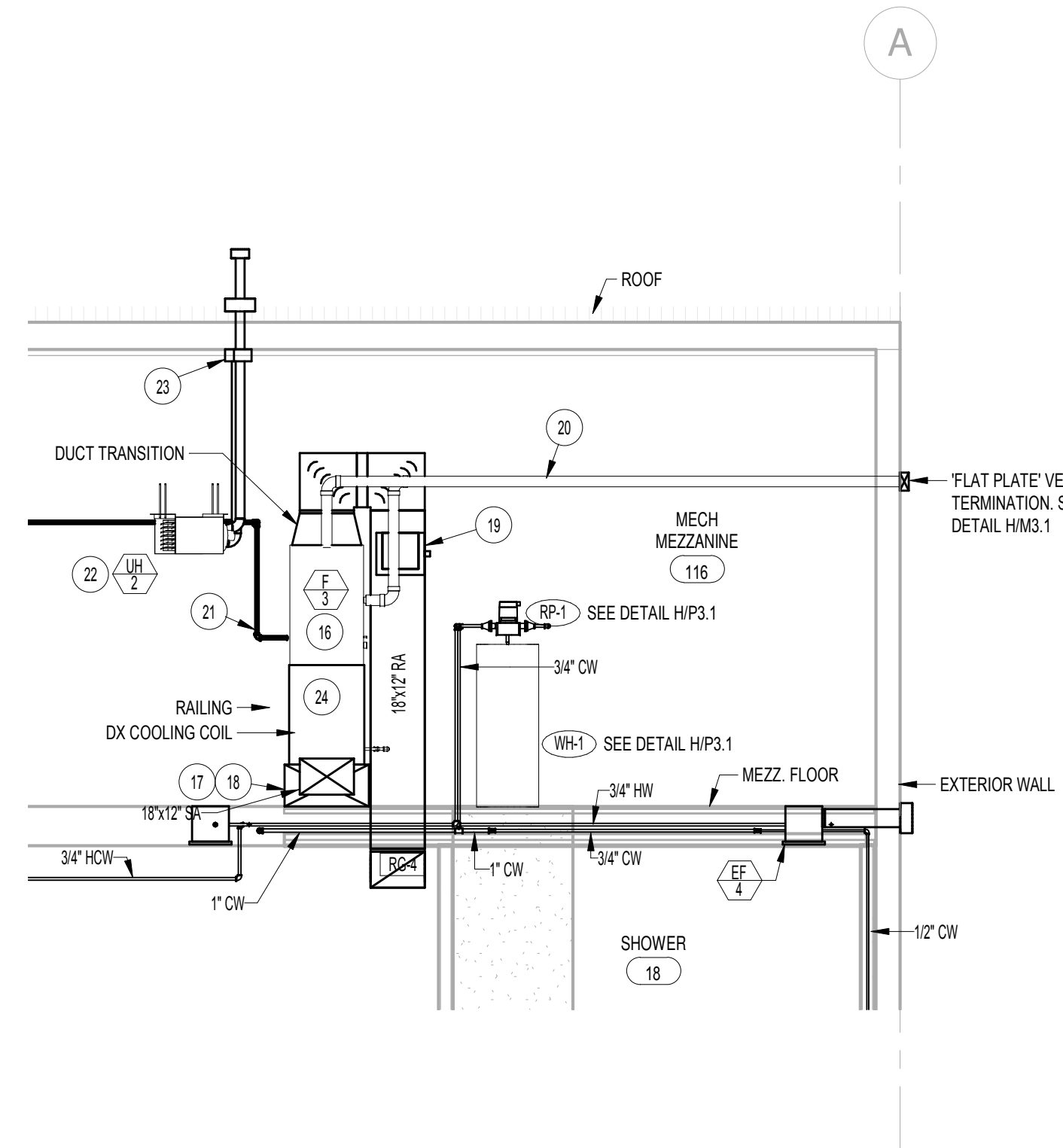
B MECHANICAL SECTION B
1/4" = 1'-0"



C MECHANICAL SECTION C
1/4" = 1'-0"



D MECHANICAL SECTION D
1/4" = 1'-0"



E MECHANICAL SECTION E
1/4" = 1'-0"

PLAN NOTES:

- 1 PROVIDE AND INSTALL GAS FIRED UP-FLOW FURNACE AS SPECIFIED. MOUNT ON PLENUM BASE. RISE DUCTWORK UP AND RUN ABOVE CEILING AS SHOWN ON SHEET M1.1. COORDINATE FURNACE AND DUCT LOCATIONS WITH ROOM DOOR, BUILDING STRUCTURE, PIPING, FIRE SPRINKLER PIPING AND ELECTRICAL CONDUITS.
- 2 PROVIDE 14" HIGH RETURN AIR PLENUM BASE BELOW FURNACE. LEAVE FULL SIZE OPENING INTO BOTTOM OF FURNACE. CONNECT RETURN DUCT AND OUTSIDE AIR DUCT TO TOP OF PLENUM BASE. REFER TO DETAIL FIM3.1 FOR TYPICAL PLENUM CONSTRUCTION.
- 3 DROP 10x6 OUTSIDE AIR DUCT DOWN AND CONNECT TO TOP OF PLENUM WITH MANUAL BALANCING DAMPER, DUCT ACCESS DOOR AND MOTORIZED DAMPER. INTERLOCK MOTORIZED DAMPER WITH FURNACE OPERATION. REFER TO DETAIL EIM3.1 FOR TYPICAL INSTALLATION.
- 4 DROP REFRIGERANT PIPING DOWN AND CONNECT TO DX COOLING COIL. REFER TO PIPING DIAGRAM GIM3.1 FOR TYPICAL VALVES AND CONNECTIONS.
- 5 RUN REFRIGERANT PIPING ABOVE CEILING TO REMOTE CONDENSING UNIT LOCATIONS. REFER TO SHEET M1.1 FOR ROUTING OF PIPING AND LOCATION OF CORRESPONDING CONDENSING UNITS.
- 6 RISE (2) 3" DIAMETER FURNACE VENTS UP TO ABOVE CEILING. EXTEND VENTS THRU JOIST SPACE TO EXTERIOR (FLAT PLATE) TERMINATION. TERMINATION TO BE 10'-0" MINIMUM FROM ANY OUTSIDE AIR INTAKE.
- 7 3/4" (2 PSI) GAS LINE THRU CEILING SPACE. (REFER TO LARGE SCALE PLAN P1.2) DROP 3/4" LINE DOWN AND CONNECT TO (2) FURNACES WITH PRESSURE REGULATOR, SHUT-OFF VALVE AND FLEXIBLE HOSE FOR EACH FURNACE SYSTEM. REGULATOR TO BE VENTED TO THE EXTERIOR AS RECOMMENDED BY MANUFACTURER. REFER TO DETAIL KIP3.1 FOR TYPICAL GAS LINE CONNECTION.
- 8 MOUNT OUTSIDE AIR INTAKE LOUVER AS HIGH AS POSSIBLE. COORDINATE WITH BUILDING TRIM AND DUCTWORK IN MECHANICAL ROOM BEYOND. REFER TO SECTION AIM.2.
- 9 PROVIDE AND INSTALL REMOTE CONDENSING UNITS AS SPECIFIED. MOUNT ON CONCRETE PAD BELOW OPEN STARWAY. EXTEND REFRIGERANT LINES UP THRU EXTERIOR WALL AND RISE UP IN WALL CAVITY TO ABOVE CEILING. REFER TO DETAIL MM3.1 FOR PIPING UP IN WALL AND TO SHEET M1.1 FOR ROUTING OF REFRIGERANT LINES.
- 10 PLACE REMOTE CONDENSING UNITS AS REQUIRED TO LEAVE 30" MINIMUM OPEN (UNOBSTRUCTED) AIR SPACE ABOVE UNIT. COORDINATE UNIT LOCATION ON SITE AFTER STAIRS HAVE BEEN INSTALLED.
- 11 PROVIDE 1" THICK NEOPRENE PADS UNDER EACH CORNER OF CONDENSING UNIT FOR VIBRATION.
- 12 RUN 10" DIAMETER BRANCH DUCT THRU MEZZANINE FLOOR JOISTS SPACE TO DIFFUSERS AS SHOWN. COORDINATE DUCT AND DIFFUSER LOCATIONS WITH OTHER PIPING, LIGHT FIXTURES AND ELECTRICAL CONDUITS. DUCTWORK TO NOT SHARE SAME SPACE AS OTHER TRADES.
- 13 RUN SUPPLY AIR DUCT ALONG MEZZANINE FLOOR AND PROVIDE TAKE-OFFS AS SHOWN ON SHEET M1.1 FOR EACH CEILING DIFFUSER ON MAIN LEVEL. PROVIDE BALANCING DAMPER IN EACH BRANCH DUCT WITH ACCESSIBLE LEVER HANDLE. SEE DETAIL ON SHEET M1.2.
- 14 PROVIDE AND INSTALL REMOTE CONDENSING UNIT AS SPECIFIED. MOUNT ON 4" THICK CONCRETE PAD WITH 1" THICK NEOPRENE PADS UNDER EACH CORNER FOR VIBRATION.
- 15 EXTEND REFRIGERANT PIPING THRU EXTERIOR WALL AND RISE UP IN WALL CAVITY TO FURNACE LOCATED ON MEZZANINE LEVEL. REFER TO DETAIL MM3.1 FOR PIPING UP IN WALL.
- 16 PROVIDE AND INSTALL GAS FIRED (DOWN-FLOW) FURNACE AS SPECIFIED. MOUNT FURNACE ON 14" HIGH SUPPLY PLENUM BASE. COORDINATE FURNACE AND DUCT LOCATIONS WITH BUILDING STRUCTURE, PLUMBING PIPING, FIRE SPRINKLER PIPING, AND ELECTRICAL CONDUITS.
- 17 PROVIDE 14" HIGH SUPPLY AIR PLENUM BASE BELOW FURNACE. LEAVE FULL SIZED OPENING IN BOTTOM OF FURNACE. REFER TO DETAIL FIM3.1 FOR TYPICAL PLENUM CONSTRUCTION.
- 18 CONNECT 18x12 SUPPLY DUCT TO FRONT OF PLENUM BASE. RUN SUPPLY DUCT AT FLOOR OF MEZZANINE AS SHOWN ON SHEET M1.2.
- 19 CONNECT 10x6 OUTSIDE AIR DUCT TO RETURN WITH MANUAL BALANCING DAMPER, DUCT ACCESS DOOR AND MOTORIZED DAMPER. INTERLOCK MOTORIZED DAMPER WITH FURNACE OPERATION. REFER TO DETAIL EIM3.1 FOR TYPICAL DAMPER INSTALLATION.
- 20 RISE (2) 3" DIAMETER FURNACE VENTS UP AND EXTEND THRU EXTERIOR WALL WITH FLAT PLATE TYPE TERMINATION. TERMINATION TO BE 10'-0" MINIMUM AWAY FROM ANY OUTSIDE AIR INTAKE. REFER TO DETAIL HM3.1 FOR TYPICAL INSTALLATION.
- 21 3/4" (2 PSI) GAS LINE. (REFER TO SHEET P1.2) DROP 3/4" LINE DOWN AND CONNECT TO FURNACE WITH PRESSURE REGULATOR, SHUT-OFF VALVE AND FLEXIBLE HOSE. REGULATOR TO BE VENTED TO THE EXTERIOR AS RECOMMENDED BY MANUFACTURER. REFER TO DETAIL KIP3.1 FOR TYPICAL GAS LINE CONNECTION.
- 22 PROVIDE AND INSTALL GAS FIRED SEPARATED COMBUSTION UNIT HEATER AS SPECIFIED. MOUNT AT 20'-0" ABOVE FLOOR AND SUPPORT FROM ROOF STRUCTURE. CONNECT 3/4" GAS LINE TO UNIT HEATER WITH PRESSURE REGULATOR, SHUT-OFF VALVE AND FLEXIBLE HOSE. REFER TO DETAIL KIP3.1 FOR TYPICAL GAS LINE CONNECTION.
- 23 RISE (2) 4" DIAMETER VENTS UP FROM UNIT HEATER AND EXTEND THRU ROOF WITH CONCENTRIC TYPE FITTING. REFER TO DETAIL FIM3.1 FOR TYPICAL INSTALLATION.
- 24 RUN 3/4" CONDENSATE DRAIN LINE FROM EACH FURNACE SYSTEM TO NEAREST FLOOR DRAIN. REFER TO DETAILS AIM3.2 OR BIM3.2 FOR TYPICAL PIPING CONNECTIONS TO UP-FLOW AND/OR DOWN-FLOW FURNACES.

08/13/2021

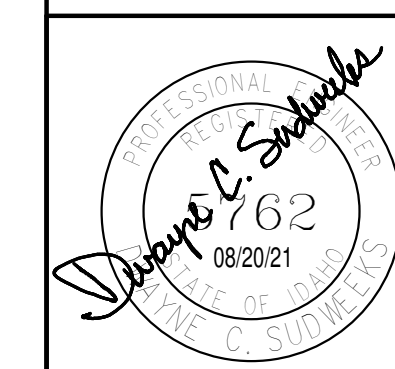
OWNER REQUESTED CHANGES

NEW OFFICE BUILDING FOR:

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TWIN FALLS, ID

MECHANICAL SECTIONS

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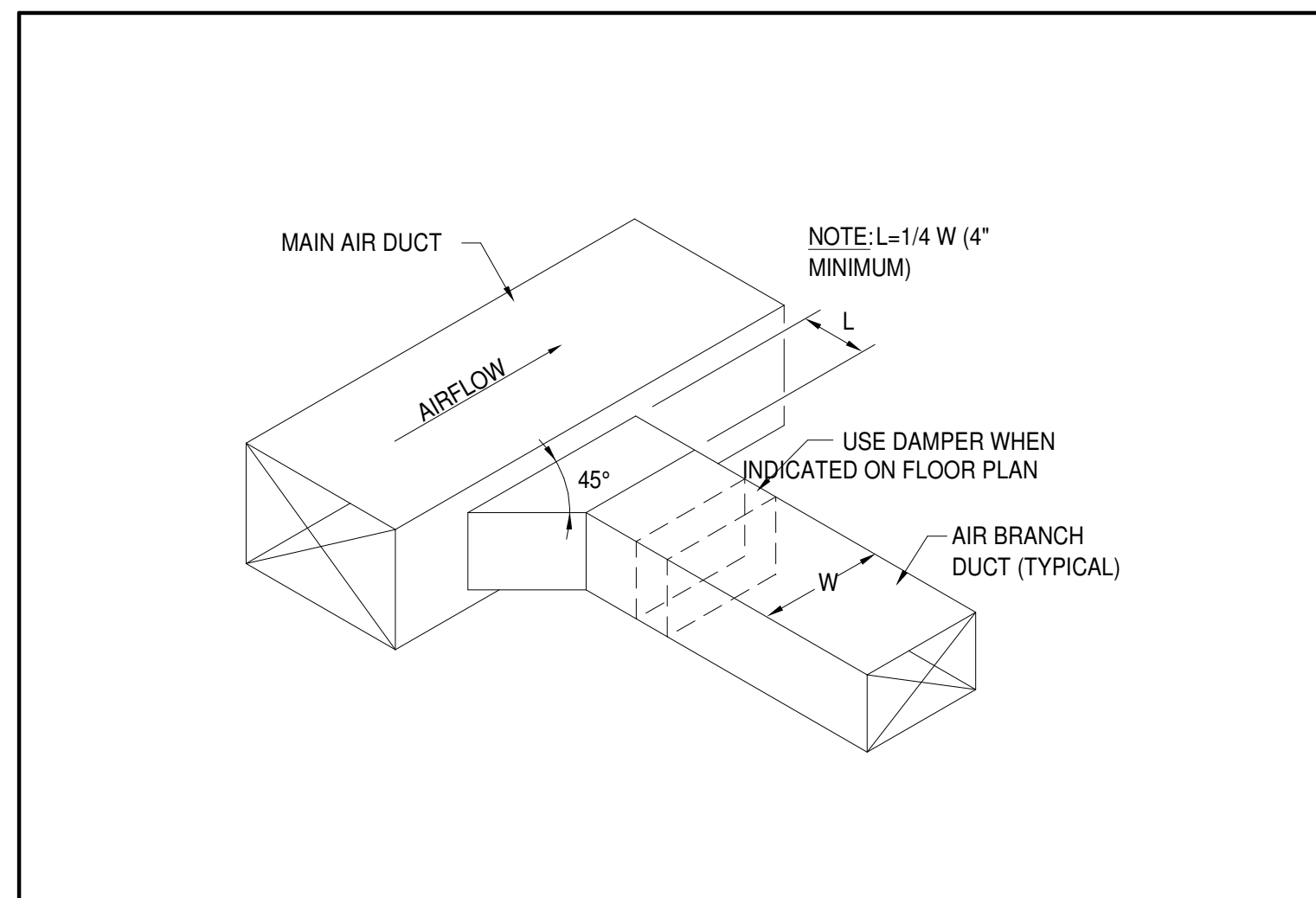


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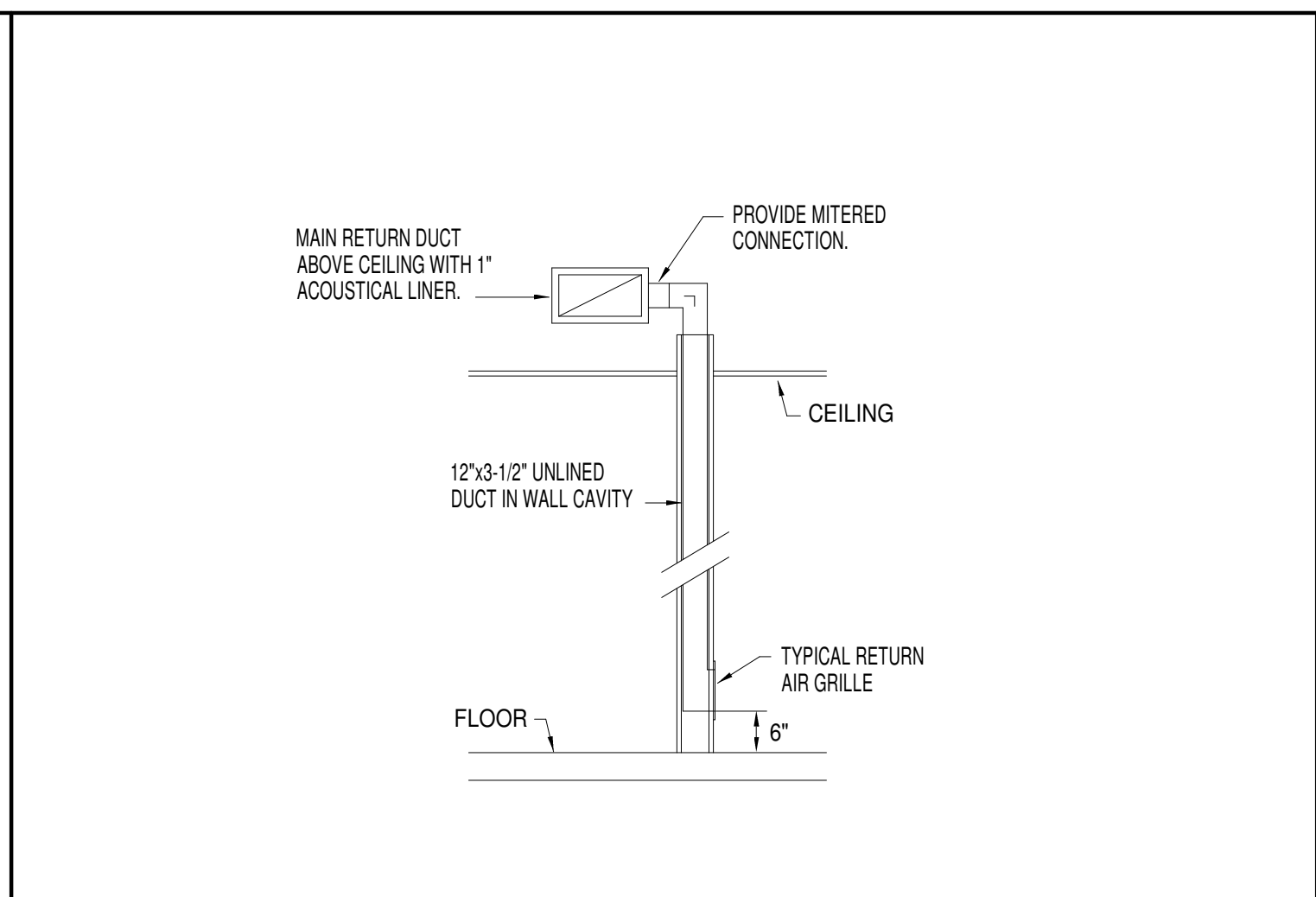
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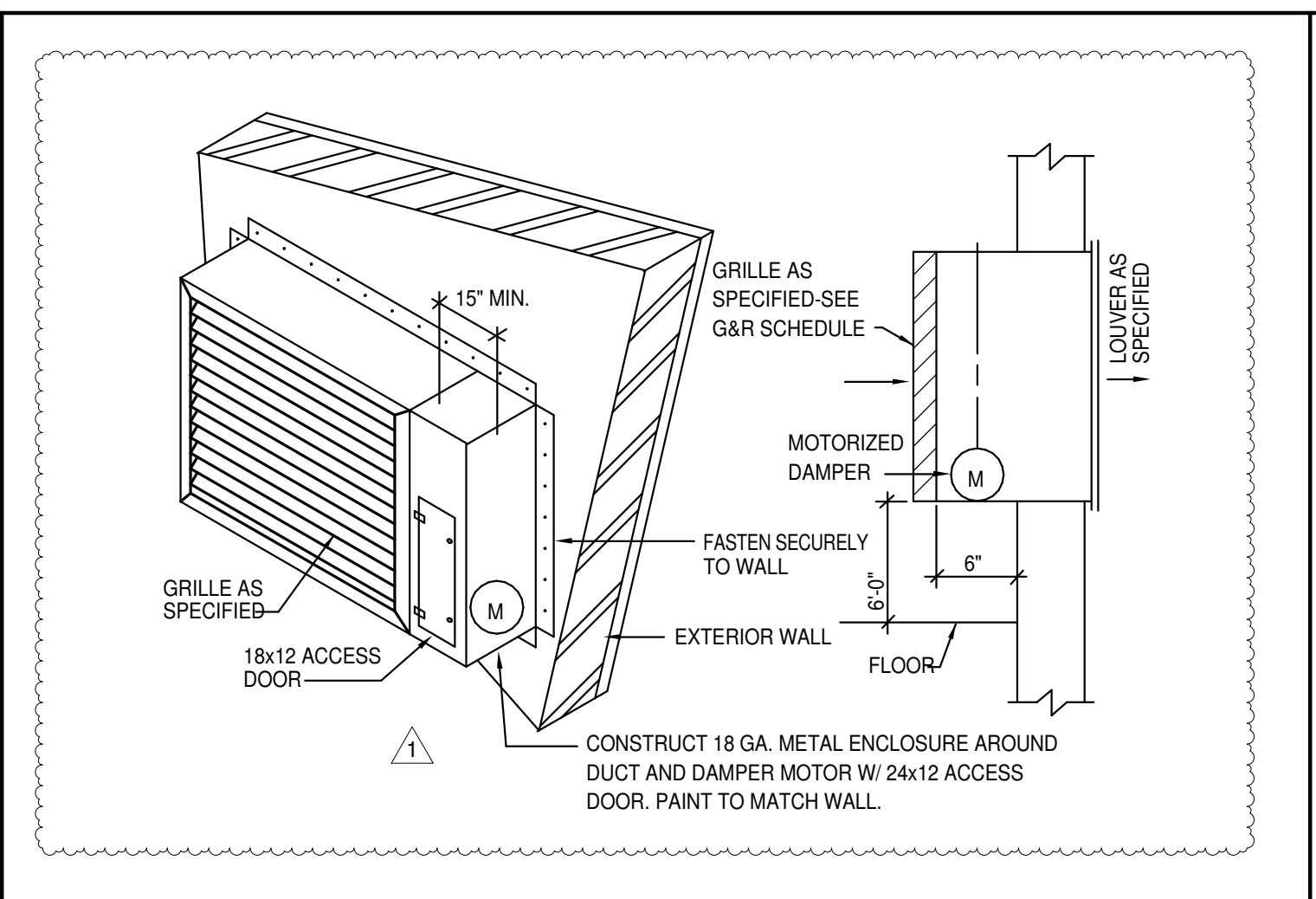
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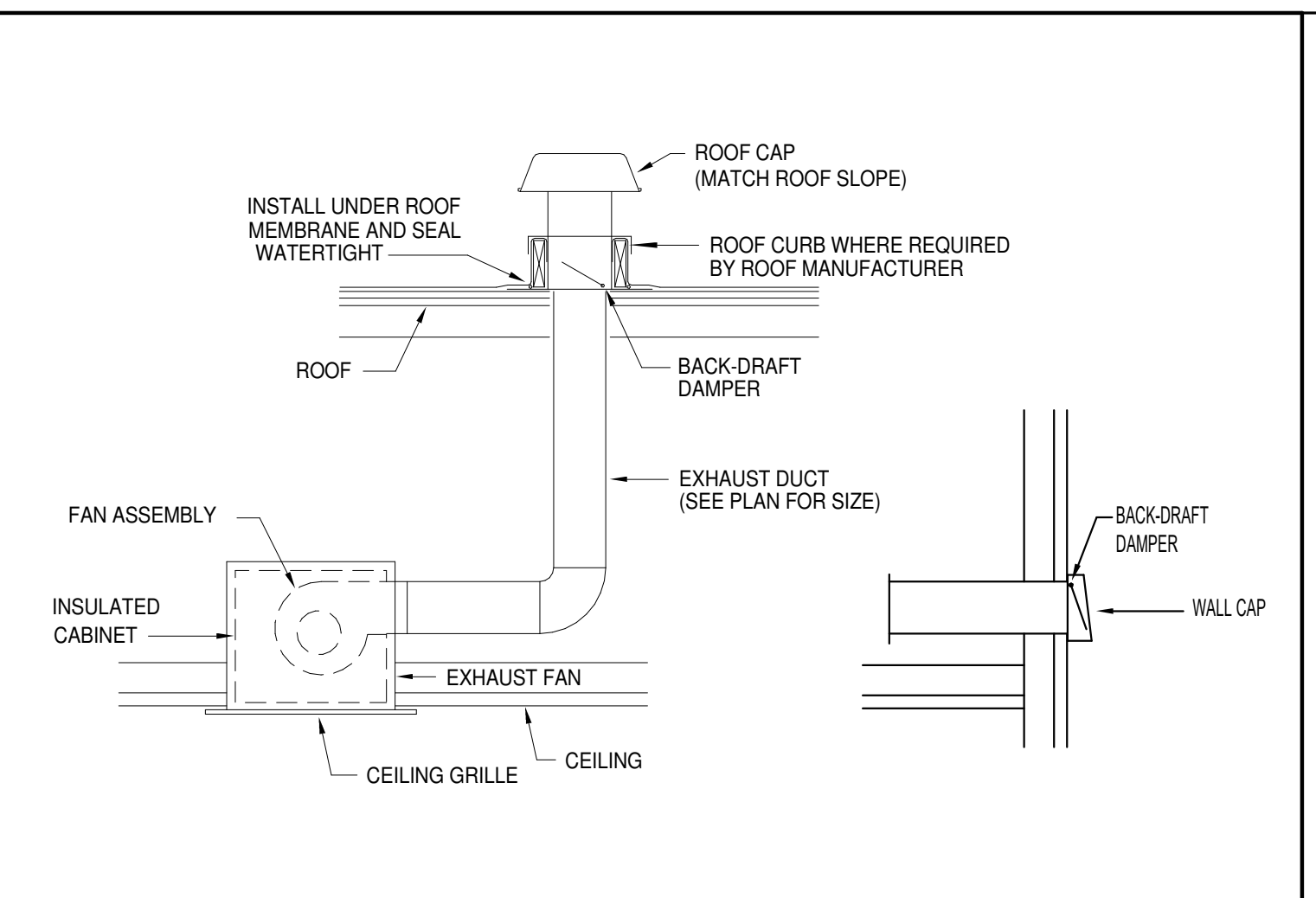
A | RECT. DUCT CONNECTION NO SCALE



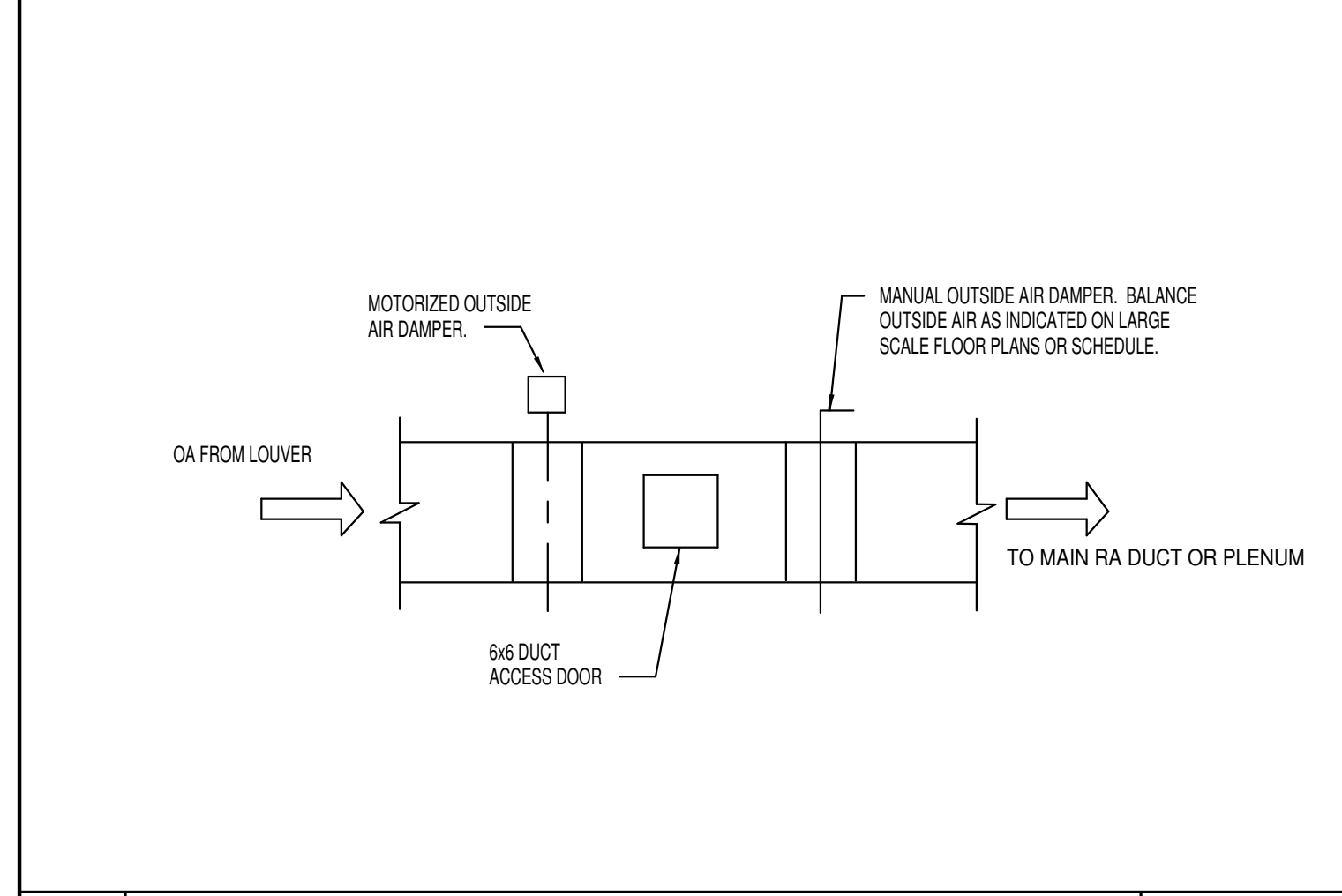
B | RETURN GRILLE DETAIL NO SCALE



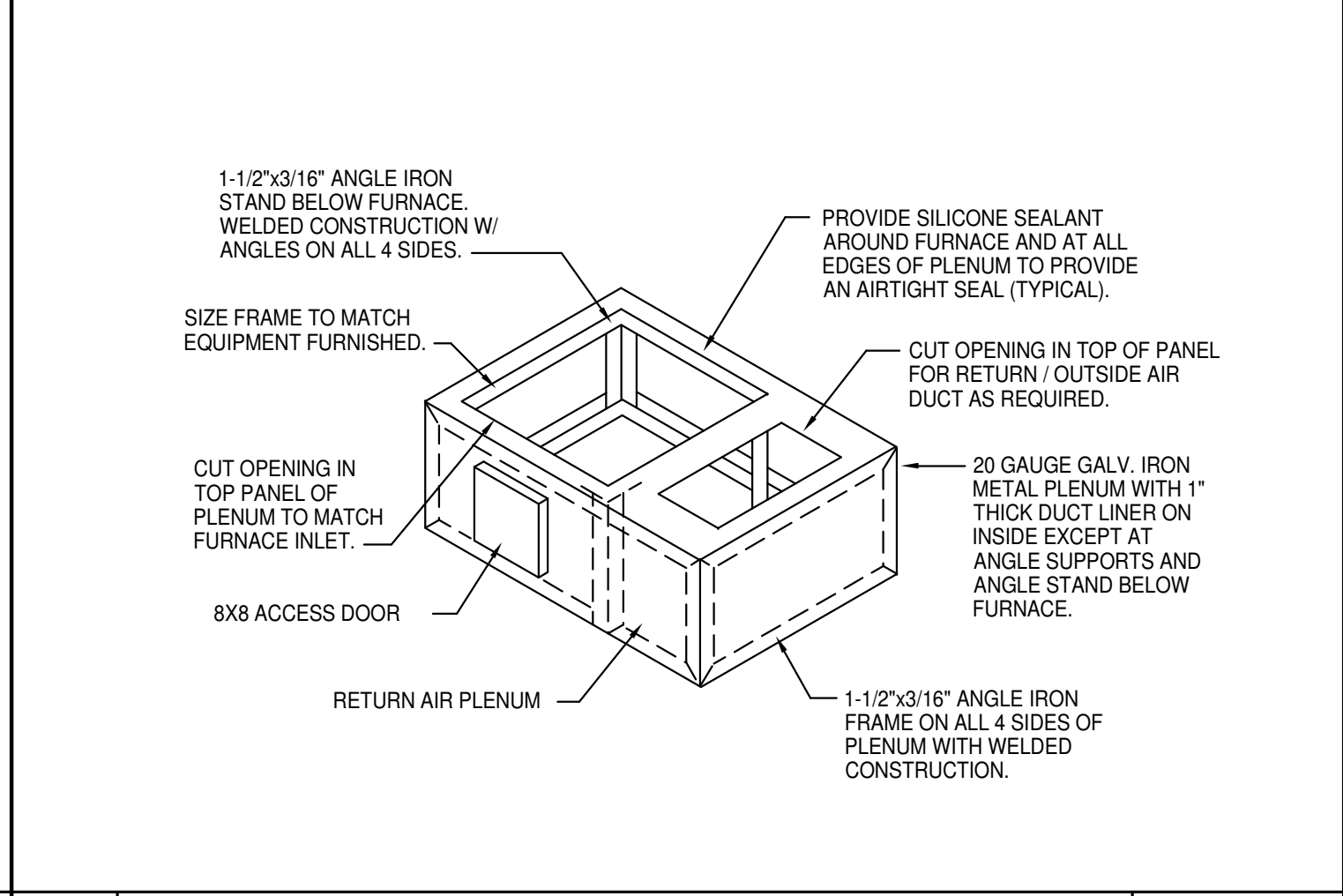
C | OUTSIDE AIR LOUVER DETAIL NO SCALE



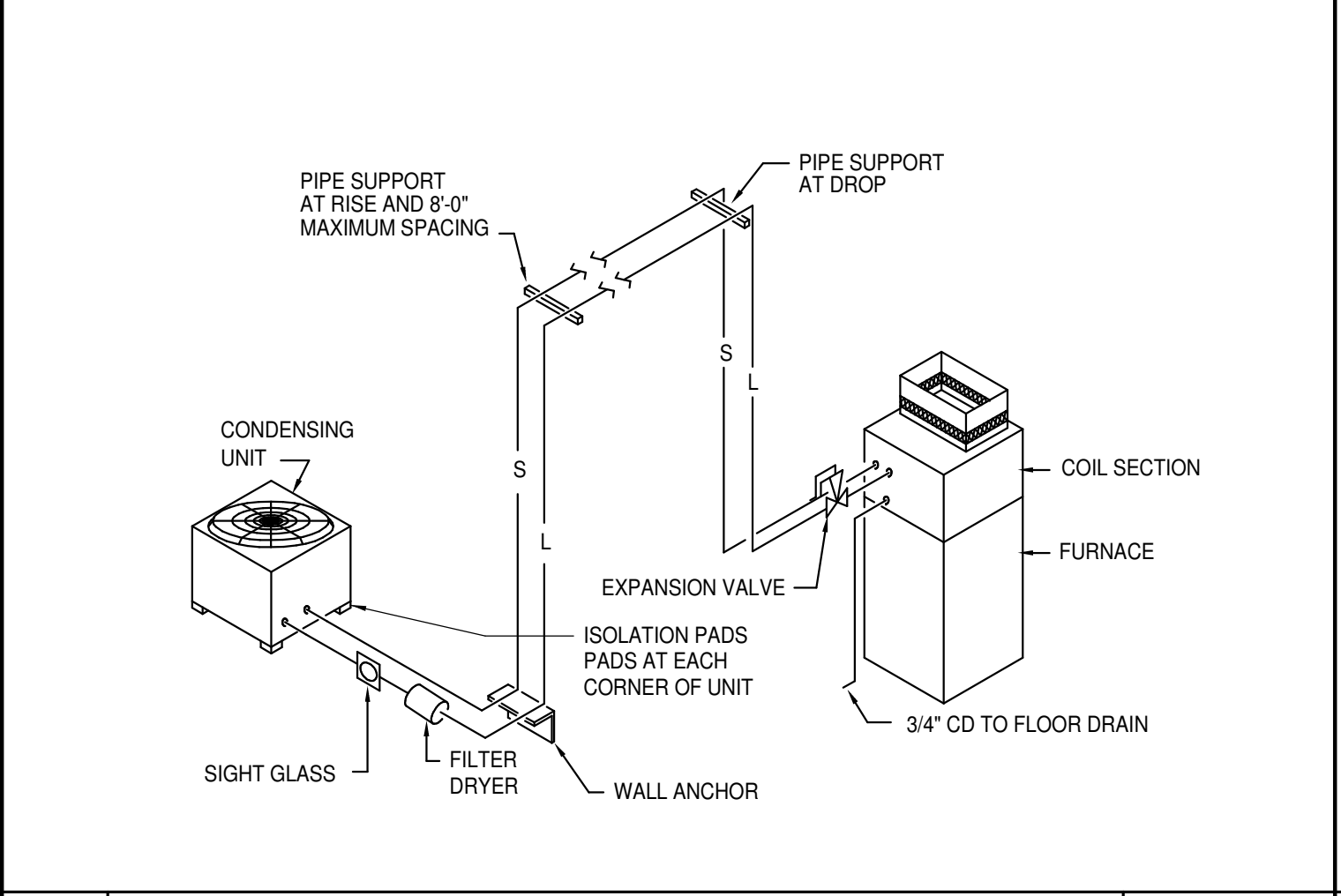
D | CEILING MOUNTED EXHAUST FAN DETAIL NO SCALE



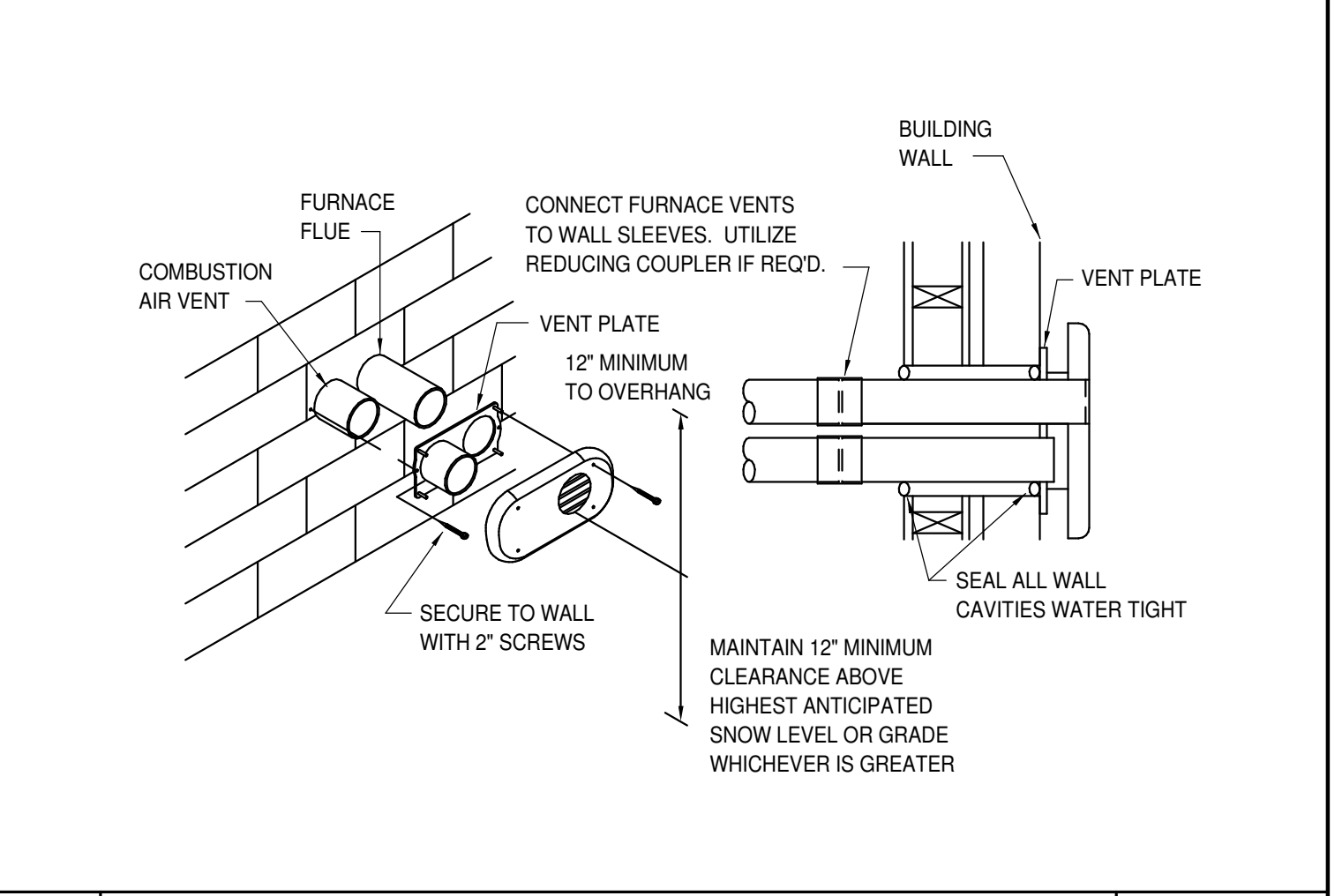
E | TYP. OUTSIDE AIR DAMPER INSTALLATION NO SCALE



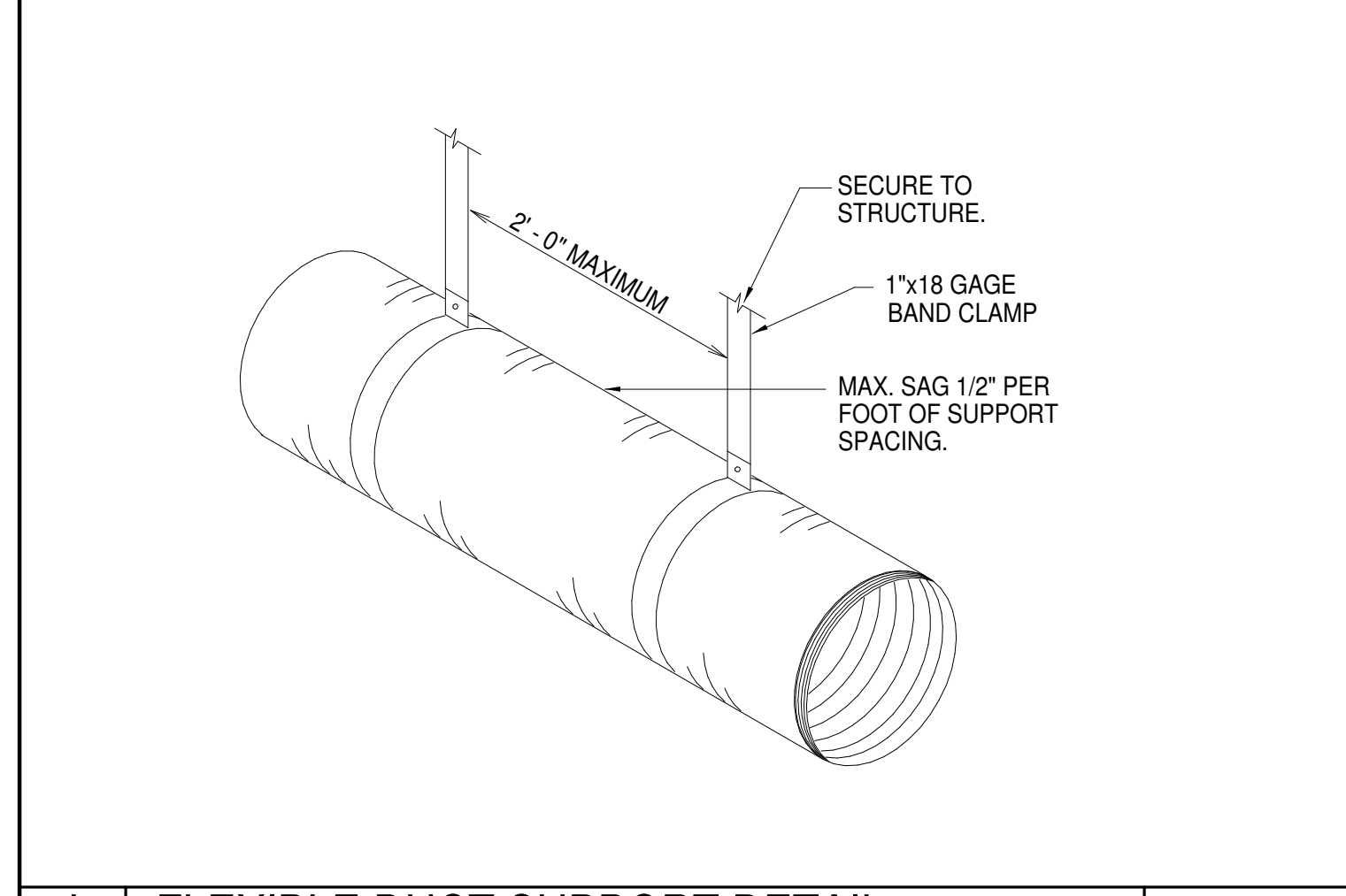
F | RETURN AIR PLENUM DETAIL NO SCALE



G | REFRIGERANT PIPING DIAGRAM NO SCALE



H | FURNACE VENT TERMINATION DETAIL NO SCALE

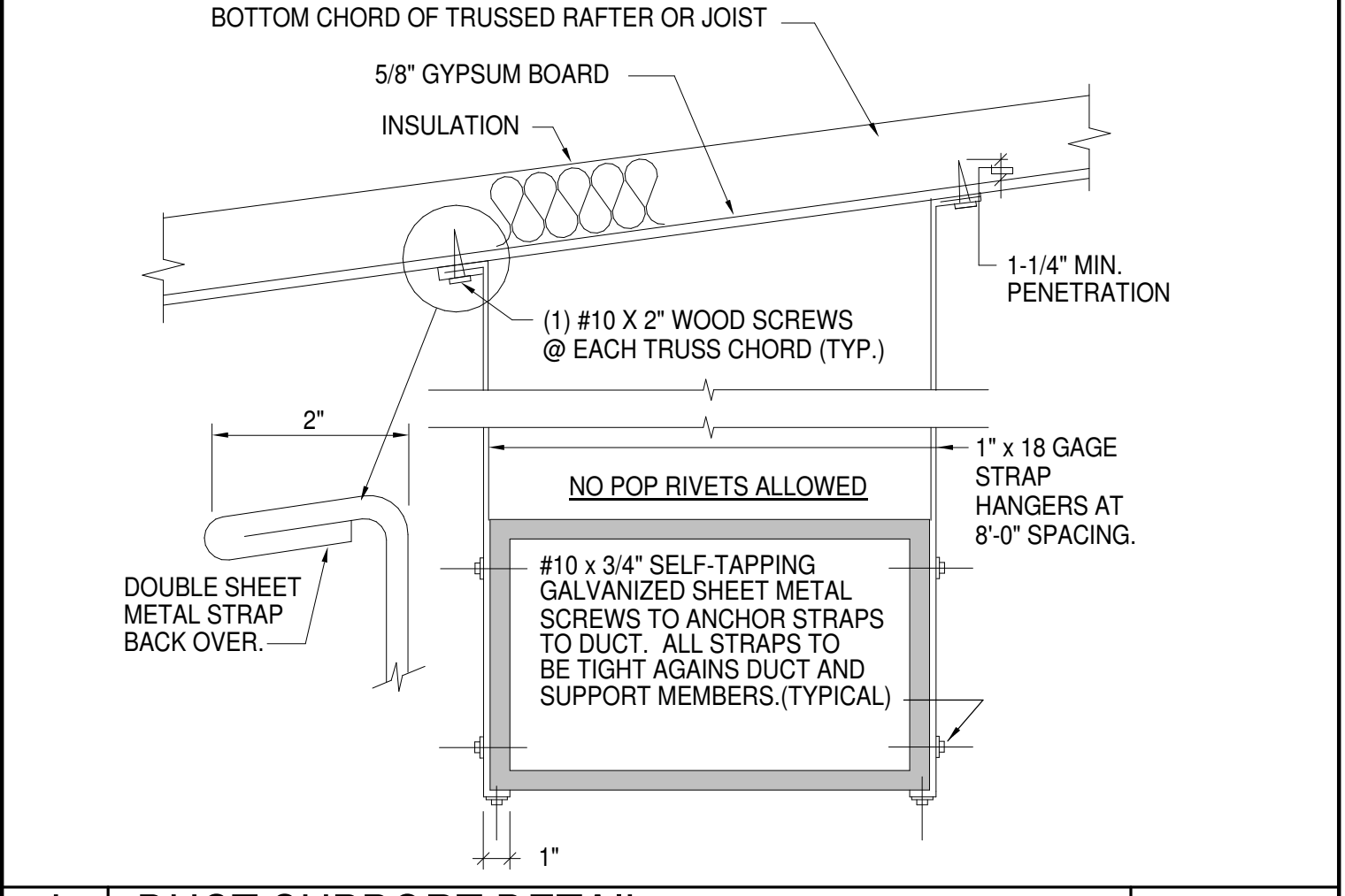


J | FLEXIBLE DUCT SUPPORT DETAIL NO SCALE

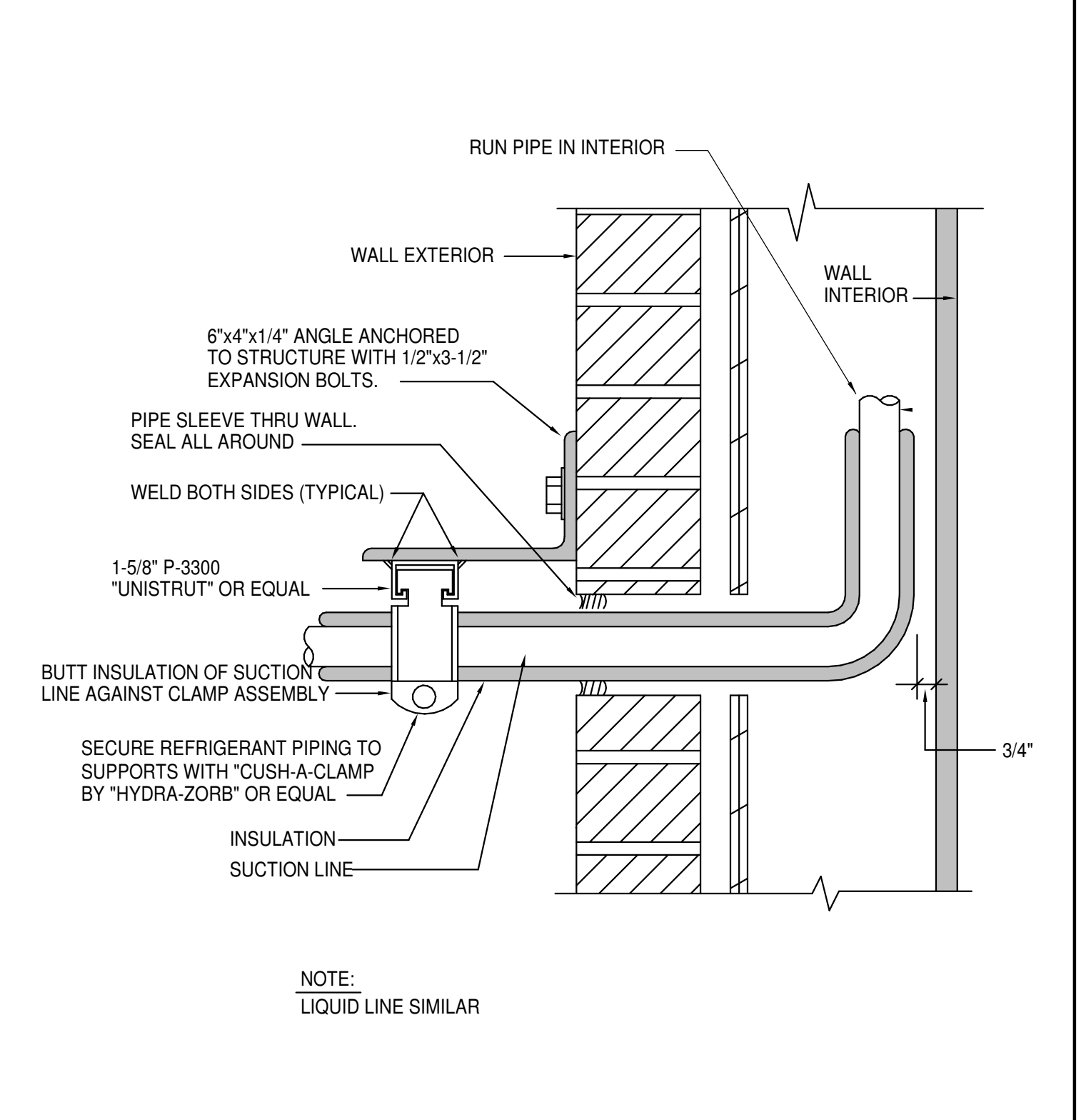
DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAUGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS & OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1) AT JOINTS				
			DRIVE SLIP	HEMMED S SLIP	ALTERNATE BAR SLIP	REINFORCED BAR SLIP	
			MIN. H. IN.	RECOMMENDED GAUGE	RECOMMENDED GAUGE	RECOMMENDED GAUGE	
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13-18	24	NONE REQUIRED	1	24	24	24	24
19-30	24	1"x1"x1/8" @ 60 IN	1	-	24	24	24
31-42	22	1"x1"x1/8" @ 60 IN	1	-	-	22	22

(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

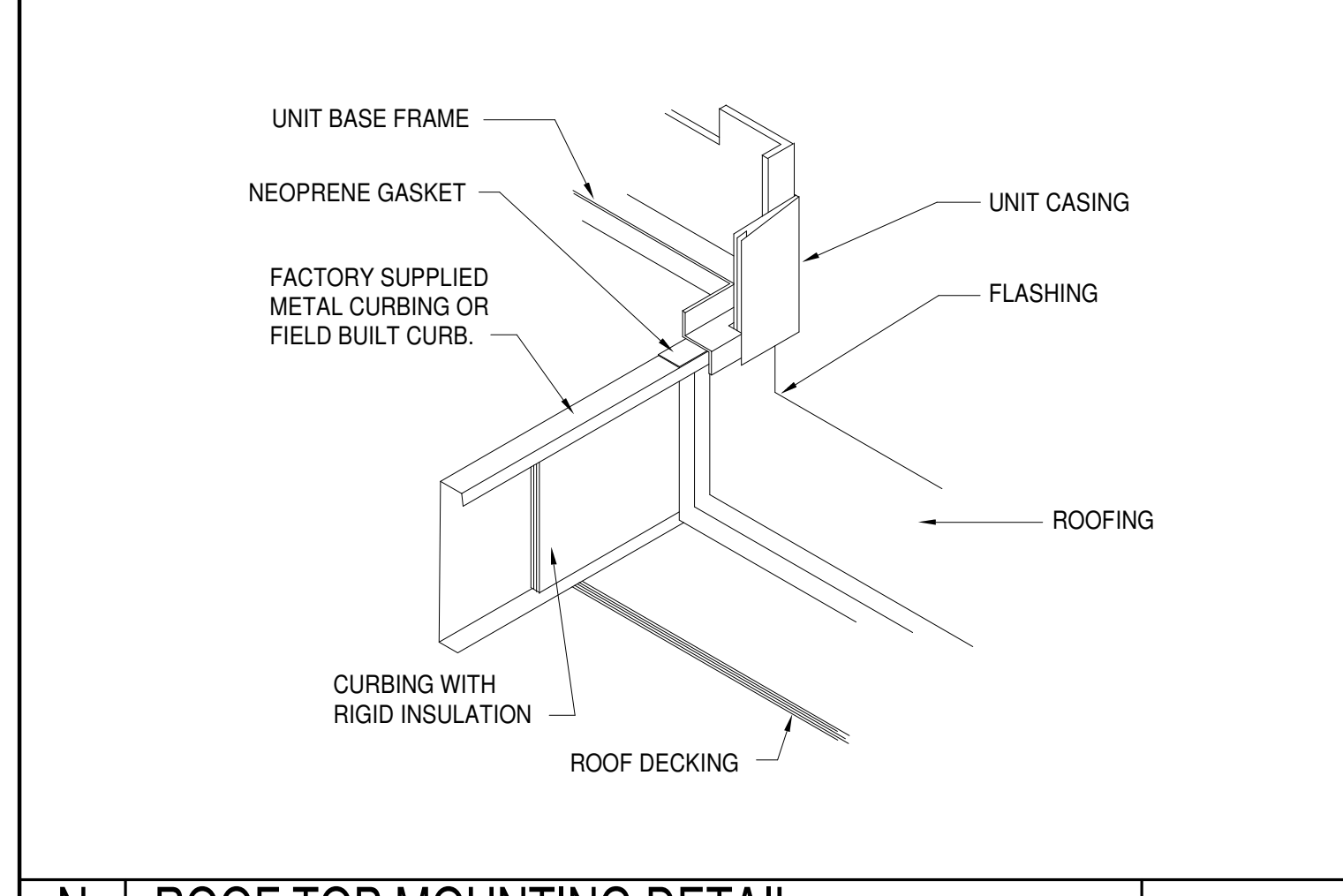
K | DUCT CONSTRUCTION DETAIL NO SCALE



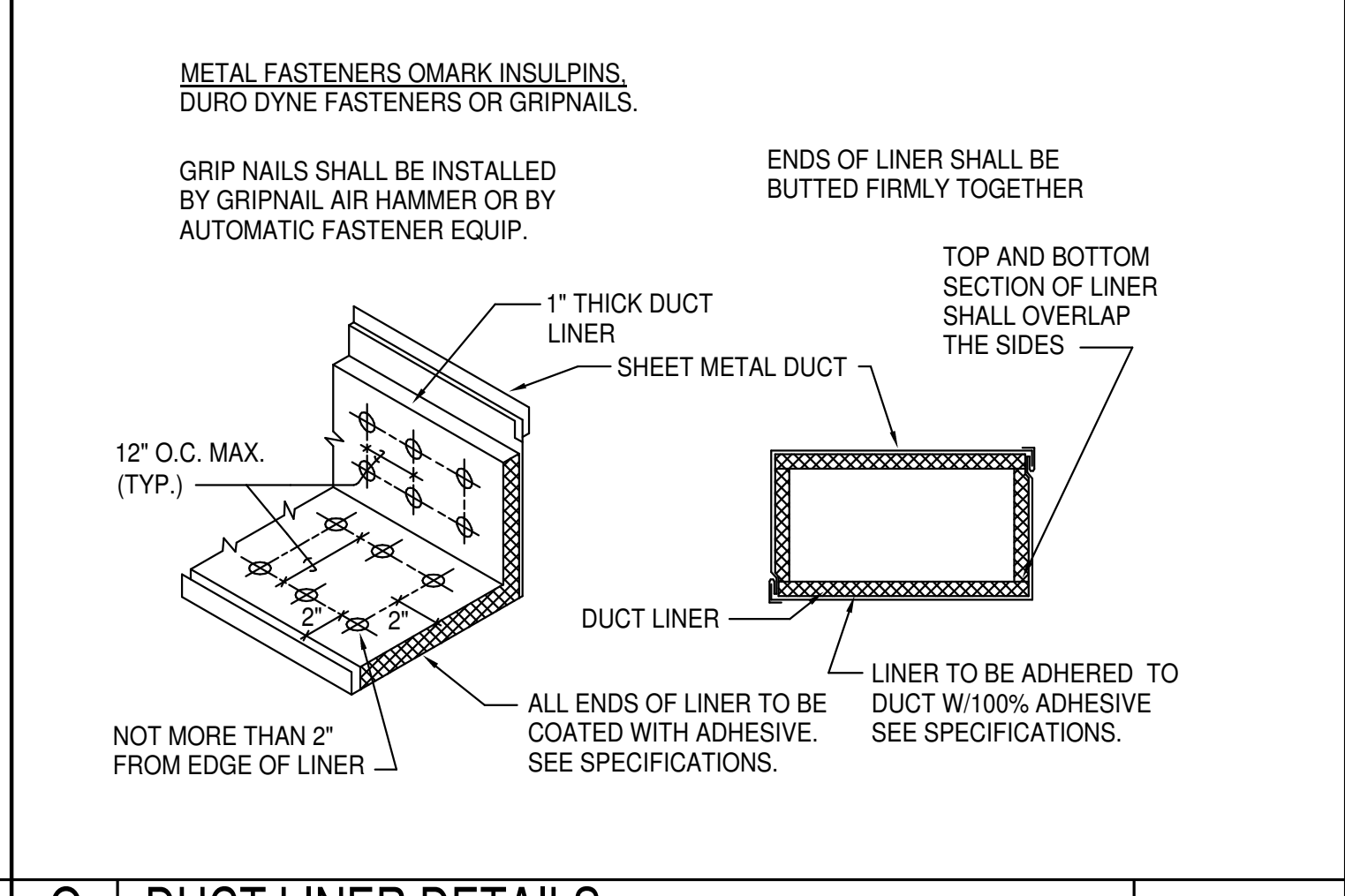
L | DUCT SUPPORT DETAIL NO SCALE



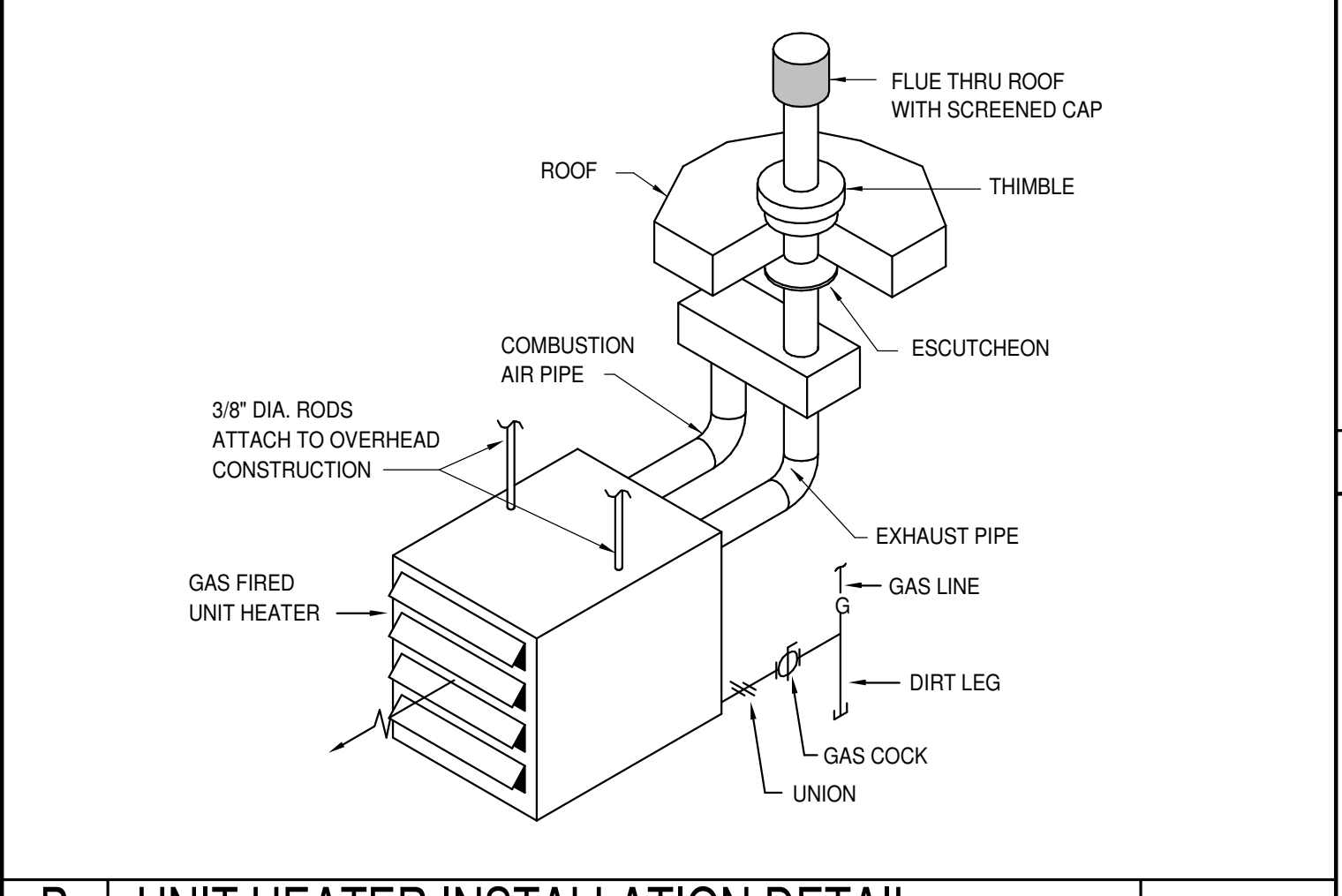
M | REFRIGERANT PIPING SUPPORT AT WALL NO SCALE



N | ROOF TOP MOUNTING DETAIL NO SCALE



O | DUCT LINER DETAILS NO SCALE



P | UNIT HEATER INSTALLATION DETAIL NO SCALE

08/13/2021

OWNER REQUESTED CHANGES

10/16/2021

NEW OFFICE BUILDING FOR:

ARI
TWIN FALLS, ID

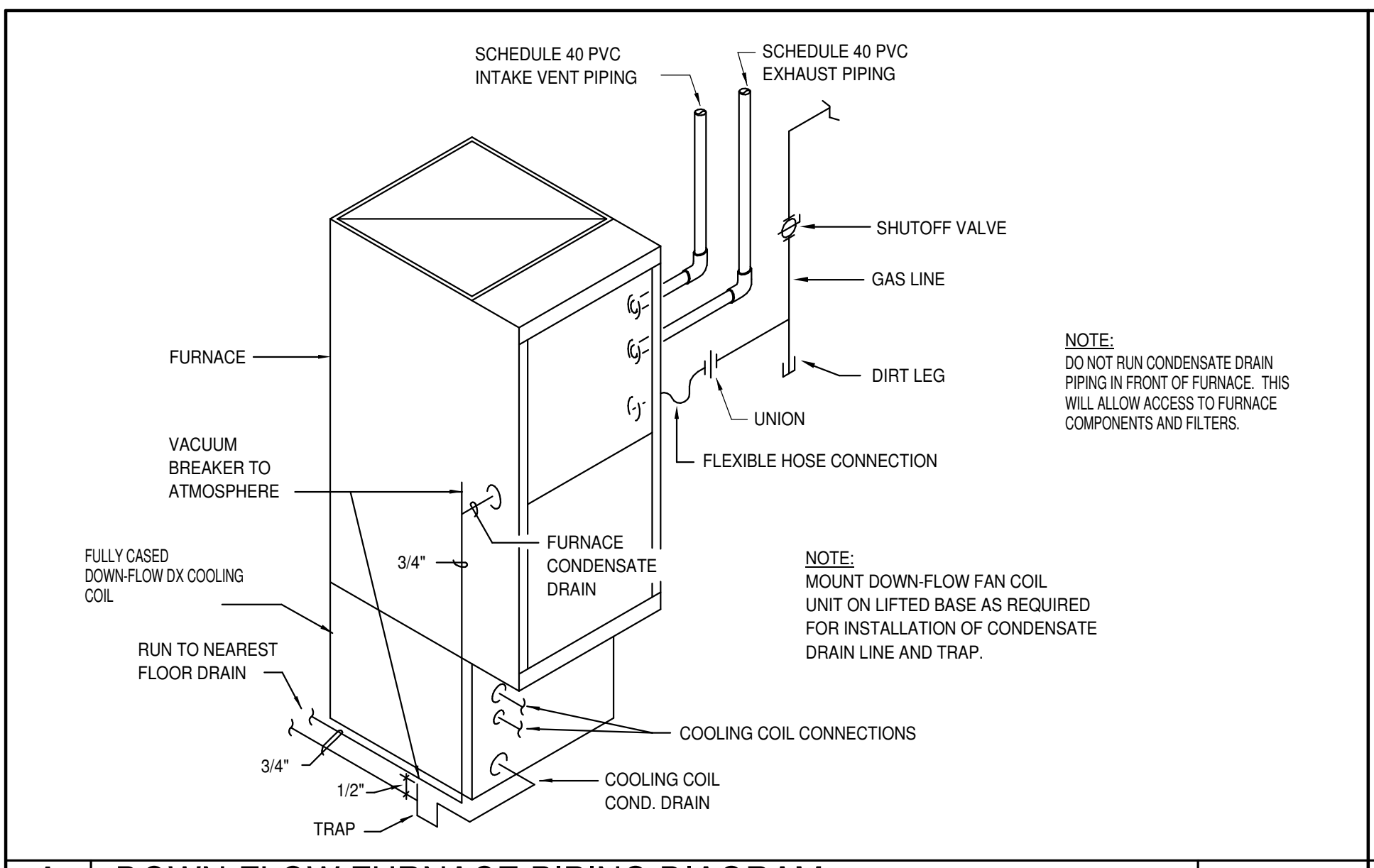
MECHANICAL DETAILS AND DIAGRAMS

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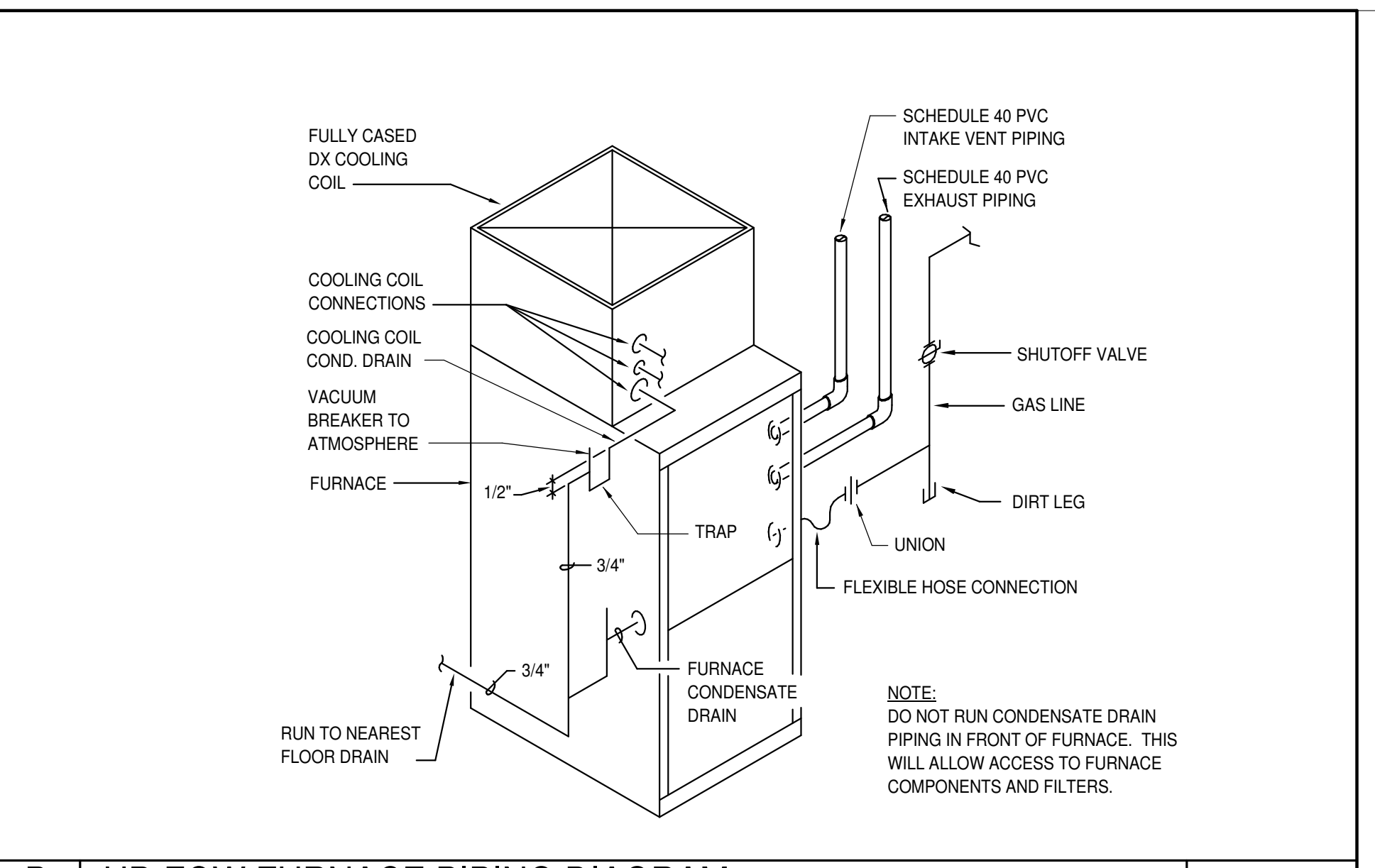
DATE: 08/13/2021
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Drawn Checked

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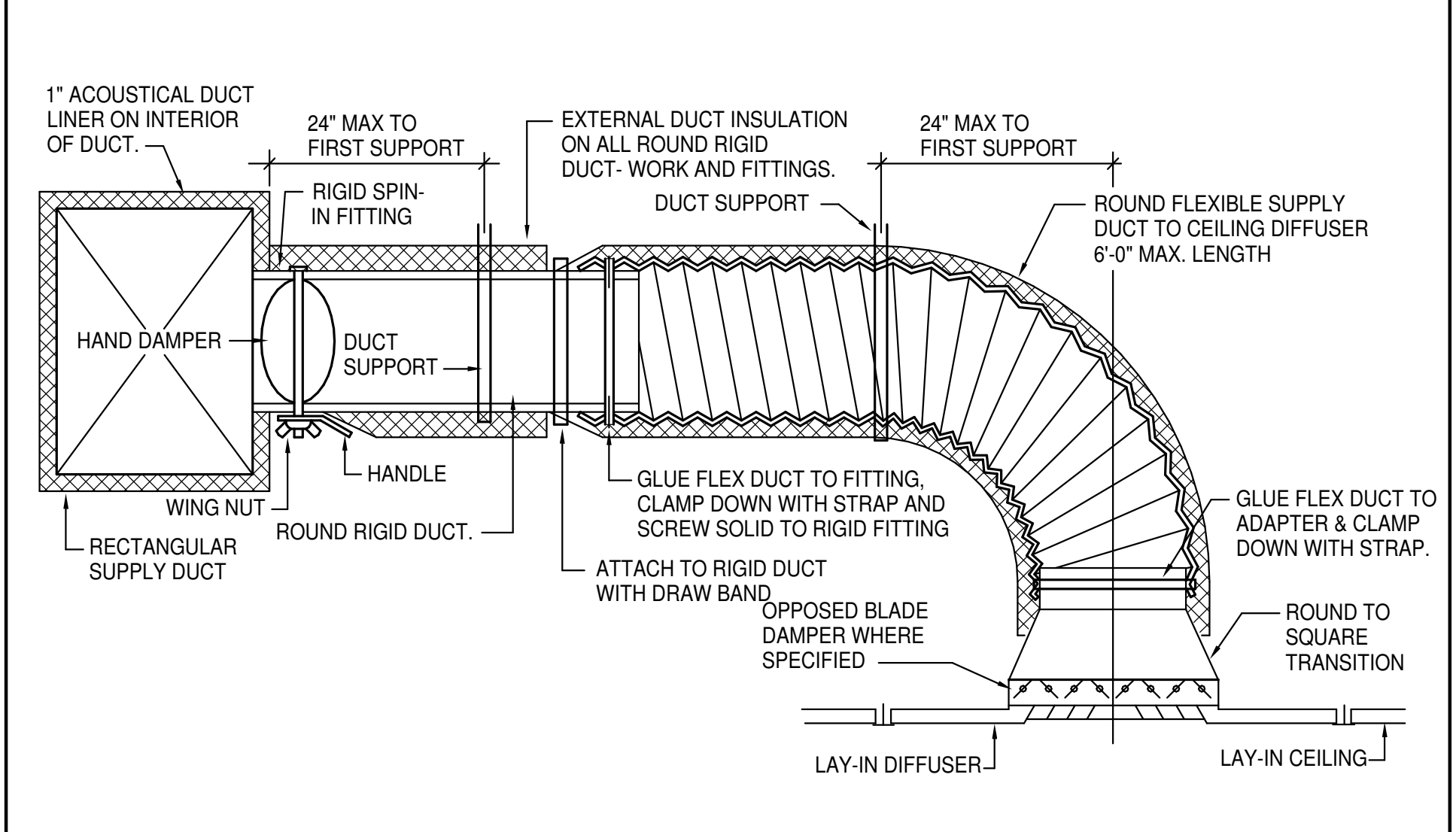
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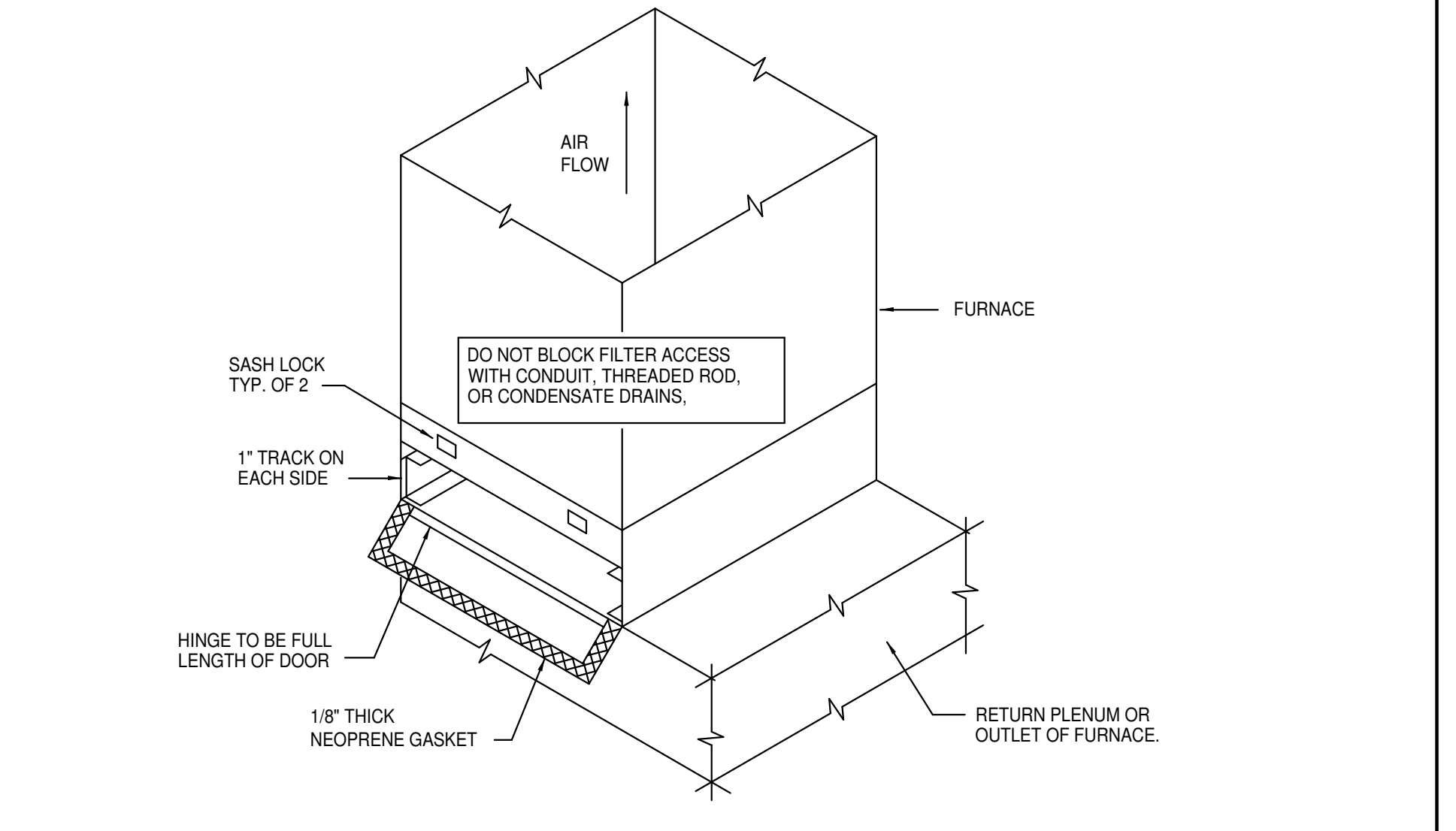
A DOWN-FLOW FURNACE PIPING DIAGRAM NO SCALE



B UP-FLOW FURNACE PIPING DIAGRAM NO SCALE



C CEILING DIFFUSER IN NON-ACCESSIBLE CEILING NO SCALE



D EXTERNAL FILTER SECTION DETAIL NO SCALE

MECHANICAL LEGEND							
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	COTG	CLEANOUT TO GRADE	HWRC	HOT WATER RECIRC. PIPING	SA	SUPPLY AIR
CD	CONDENSATE DRAIN PIPING	CR	CONDENSATE RETURN	LPG	LIQUID PROPANE GAS	VTR	VENT THRU ROOF
CO	CLEANOUT	CW	COLD WATER PIPING	OA	OUTSIDE AIR	V	VENT PIPING
①	PLAN NOTE	HW	HOT WATER PIPING	RA	RETURN AIR	W	WASTE PIPING
FC 1	EQUIPMENT SYMBOL	—	PIPE DROP	Ⓢ	THERMOSTAT	WCO	WALL CLEANOUT
—	DUCT TRANSITION	—	PIPE RISE	—	MOTORIZED DAMPER	—	SIDEWALL REGISTER (SUPPLY AIR)
—	TURNING VANES	—	BALL VALVE	—	CEILING MOUNTED EXHAUST FAN	—	SIDEWALL GRILLE (RETURN AIR)
—	ROUND SPIRAL DUCTWORK	—	CHECK VALVE	—	ROOF TOP EXHAUST FAN	—	CEILING DIFFUSER
—	INSULATED FLEXIBLE DUCT	—	GATE VALVE	—	VERTICAL FAN COIL UNIT	—	RETURN AIR GRILLE
		—	RECTANGULAR SUPPLY AND RETURN AIR DUCT TAKE-OFF	—	HORIZONTAL UNIT HEATER	—	EXHAUST AIR GRILLE
		—	HAND DAMPER				
		—	ROUND BRANCH DUCT WITH HAND DAMPER				

ELECTRIC HEATER SCHEDULE						
SYM.	TYPE	BTU	KW	CHAR.	CONTROL	REMARKS
EH 1	SURFACE WALL MOUNTED	6824	2	208/60/1	INTEGRAL	QMARK MODEL AWH4408 WITH AWH-SM MOUNTING FRAME

ROOF TOP HEATING & AIR CONDITIONING UNIT SCHEDULE																		
SYM.	CFM	MIN. O.A.	SP _e	BLOWER H.P.	EER	CHAR.	MCA	MOP	WEIGHT	GAS CONN.	HEATING @ ELEV.			COOLING			REMARKS	
											MBH IN	MBH OUT	EAT	LAT	SUP	VENT		
RT 1	1850	300	.75"	1	12.8	480/60/3	14	20	1100#	1/2"	130	104	65°F	110°F	61	95°F	67°F	TRANE MODEL YHC-060-E4 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.
RT 2	1200	300	.75"	1	12.4	480/60/3	12	15	1100#	1/2"	80	64	65°F	106°F	37.6	95°F	67°F	TRANE MODEL YHC-036-E4 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.

① UNIT TO BE SUPPLIED WITH FACTORY FURNISHED CONVENIENCE OUTLET AND DISCONNECT. UNIT TO BE SUPPLIED WITH MERV 14 HEPA FILTERS.

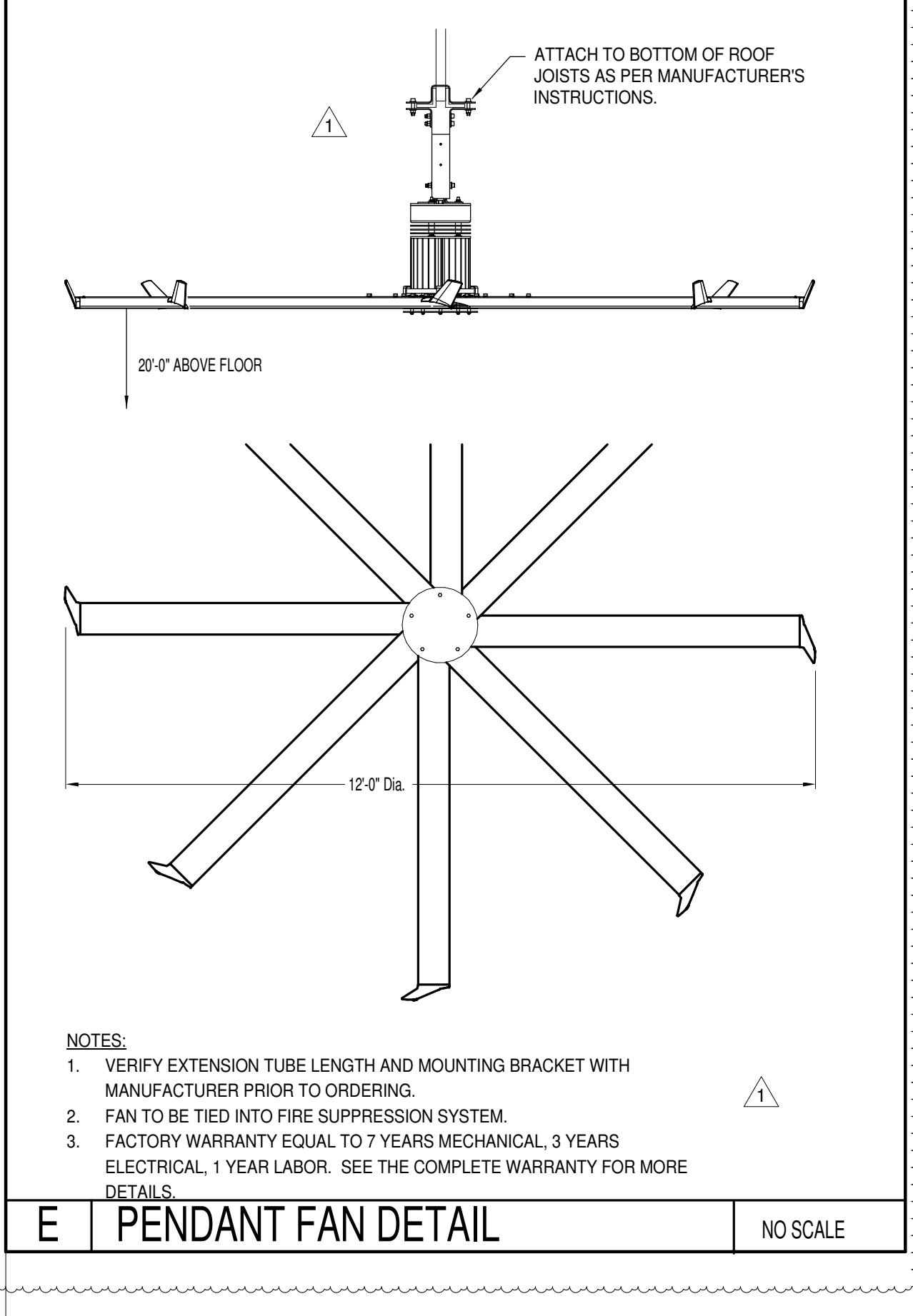
FURNACE SCHEDULE																	
SYM.	TYPE	DESIGN CFM	O.A. CFM	SP _e	H.P.	CHAR.	A.G.A. @ ELEV.		EAT	LAT	SUP	VENT	GAS TYPE	REMARKS			
							INPUT	OUTPUT									
F 1	UP-FLOW	1600	200	.5"	1	120/60/1	100,000	97,000	65°F	112°F	1/2"	(2) 3"	NAT.	TRANE MODEL SX18100U5 WITH MATCHING DX COOLING COIL			
F 2	UP-FLOW	1500	200	.5"	1	120/60/1	100,000	97,000	65°F	112°F	1/2"	(2) 3"	NAT.	TRANE MODEL SX18100U5 WITH MATCHING DX COOLING COIL			
F 3	DOWN-FLOW	1200	200	.5"	3/4	120/60/1	80,000	77,600	65°F	115°F	1/2"	(2) 3"	NAT.	TRANE MODEL SX18080D4 WITH MATCHING DX COOLING COIL			

CONDENSING UNIT SCHEDULE																	
SYM.	BTU	EAT	CHAR.	MCA	MOP	WEIGHT	REFRIGERANT PIPING		MIN. EER	REMARKS							
							LIQUID	SUCTION									
CU 1	48,000	95°F	208/60/1	24.0	40	225#	3/8"	7/8"	13.0	TRANE XR14 A/C SERIES, MODEL 4TTR4048 WITH LOW AMBIENT HARD-START KIT.							
CU 2	48,000	95°F	208/60/1	24.0	40	225#	3/8"	7/8"	13.0	TRANE XR14 A/C SERIES, MODEL 4TTR4048 WITH LOW AMBIENT HARD-START KIT.							
CU 3	36,000	95°F	208/60/1	18.0	30	200#	3/8"	3/4"	13.0	TRANE XR14 A/C SERIES, MODEL 4TTR4037 WITH LOW AMBIENT HARD-START KIT.							

UNIT HEATER SCHEDULE																	
SYM.	TYPE	CFM	H.P.	CHAR.	A.G.A.		EAT	LAT	SUP.	FUEL TYPE	FLUE	WEIGHT	REMARKS				
					INPUT	OUTPUT											
UH 1	PROPELLER	1350	1/20	120/60/1	105,000	87,150	65°F	100°F	1/2"	NAT.	(2) 4" Dia	200#	REZTOR UDAS-100 SEALED COMBUSTION UNIT WITH WALL MOUNTED THERMOSTAT				
UH 2	PROPELLER	1350	1/20	120/60/1	105,000	87,150	65°F	100°F	1/2"	NAT.	(2) 4" Dia	200#	REZTOR UDAS-100 SEALED COMBUSTION UNIT WITH WALL MOUNTED THERMOSTAT				

EXHAUST FAN SCHEDULE																	
SYM.	TYPE	C.F.M.	S.P.E.	WATTS	CHAR.	R.P.M.	CONTROL	REMARKS									
EF 1	CEILING MOUNTED	250	.25"	166	120/60/1	830	WITH LIGHTS	TWIN CITY MODEL T250 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT TO WALL CAP.									
EF 2	CEILING MOUNTED	250	.25"	166	120/60/1	830	WITH LIGHTS	TWIN CITY MODEL T250 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT TO WALL CAP.									
EF 3	CEILING MOUNTED	150	.25"	100	120/60/1	710	24 HR TIMER	TWIN CITY MODEL T150 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT TO WALL CAP.									
EF 4	CEILING MOUNTED	100	.25"	87	120/60/1	640	WITH LIGHTS	TWIN CITY MODEL T100 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT TO WALL CAP.									
EF 5	CEILING MOUNTED	200	.25"	127	120/60/1	740	24 HR TIMER	TWIN CITY MODEL T200 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT TO ROOF CAP.									
EF 6	CEILING MOUNTED	200	.25"	127	120/60/1	740	COOLING STAT	TWIN CITY MODEL T200 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT TO ROOF CAP.									
EF 7	CEILING MOUNTED	100	.25"	87	120/60/1	640	WITH LIGHTS	TWIN CITY MODEL T100 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT UP TO ROOF CAP.									
EF 8	CEILING MOUNTED	100	.25"	87	120/60/1	640	WITH LIGHTS	TWIN CITY MODEL T100 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT UP TO ROOF CAP.									
EF 9	CEILING MOUNTED	100	.25"	87	120/60/1	640	24 HR TIMER	TWIN CITY MODEL T100 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT UP TO ROOF CAP.									
EF 10	IN-LINE BELT DRIVE	3000	0.5"	3/4 HP	120/60/1	1050	WALL SWITCH	TWIN CITY MODEL BSH-165A (IN-LINE FAN) WITH BACK-DRAFT DAMPER, INTERLOCK WITH (2) CL-2 DAMPER MOTORS.									
EF 11	12" PENDANT	---	---	1/2	208/60/3	120	WALL SWITCH	PATTERSON V-SERIES HVLS CEILING FAN, (12" Dia.) MOUNT AT 20'-0" ABOVE FLOOR. TO BE SUPPLIED WITH REMOTE SPEED AND DIRECTIONAL CONTROLLER.									
EF 12	12" PENDANT	---	---	1/2	208/60/3	120	WALL SWITCH	PATTERSON V-SERIES HVLS CEILING FAN, (12" Dia.) MOUNT AT 20'-0" ABOVE FLOOR. TO BE SUPPLIED WITH REMOTE SPEED AND DIRECTIONAL CONTROLLER.									
EF 13	CEILING MOUNTED	250	.25"	166	120/60/1	830	WITH LIGHTS	TWIN CITY MODEL T250 WITH CEILING GRILLE. BACK-DRAFT DAMPER AND 8" Dia. DUCT TO WALL CAP.									

GRILLE AND REGISTER SCHEDULE																	
SYM.	SIZE	THROW	CFM	CONSTR.	FINISH	BRANCH DUCT	F.D.	O.B.	REMARKS								
CD-1	9 x 9	—	50-199	STEEL	WHITE	8" Dia.	NO	NO	PRICE SMD IN 24x24 LAY-IN MODULE								
CD-2	12 x 12	—	200-450	STEEL	WHITE	10" Dia.	NO	NO	PRICE SMD IN 24x24 LAY-IN MODULE								
CD-3	12 x 12	—	200-450	STEEL	WHITE	10" Dia.	NO	NO	PRICE SMD WITH BEVELED FRAME								
CD-4	9 x 9	—	50-199	STEEL	WHITE	8" Dia.	NO	NO	PRICE SMD WITH BEVELED FRAME								
RG-1	12 x 6	—	0-160	STEEL	WHITE	12 x 3-1/2" UN-LINED	NO	NO	PRICE 535L								
RG-2	18 x 18	—	450-900	STEEL	WHITE	18 x 10	NO	NO	PRICE MODEL 535 IN 24x24 LAY-IN MODULE								
RG-3	18 x 18	—	450-1000	STEEL	WHITE	18 x 12	NO	NO	PRICE 535								
RG-4	24 x 14	—	450-1000	STEEL	WHITE	18 x 12	NO	NO	PRICE 535L								
EG-1	24 x 24	—	1500	STEEL	WHITE	24 x 24	NO	NO	PRICE MODEL 535 (HORIZONTAL)								
EG-2	48 x 48	—	3000	STEEL	WHITE	24 x 18	NO	NO	PRICE MODEL 535L								
OL-1	12 x 12	—	500	ALUM	COLOR BY ARCHITECT	12 x 10	NO	NO	AMERICAN WARMING LE-31 WITH DRAINABLE BLADES AND BIRD SCREEN								
OL-2	24 x 24	—	1500	ALUM	COLOR BY ARCHITECT	24 x 24	NO	NO	AMERICAN WARMING LE-31 WITH DRAINABLE BLADES AND BIRD SCREEN								
OL-3	48 x 24	—	3000	ALUM	COLOR BY ARCHITECT	48 x 24	NO	NO	AMERICAN WARMING LE-31 WITH DRAINABLE BLADES AND BIRD SCREEN								



E PENDANT FAN DETAIL NO SCALE

08/13/2021

OWNER REQUESTED CHANGES

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MECHANICAL SCHEDULES AND DETAILS

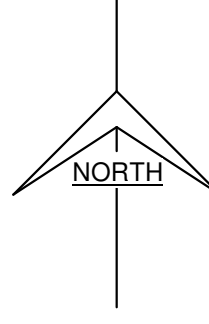
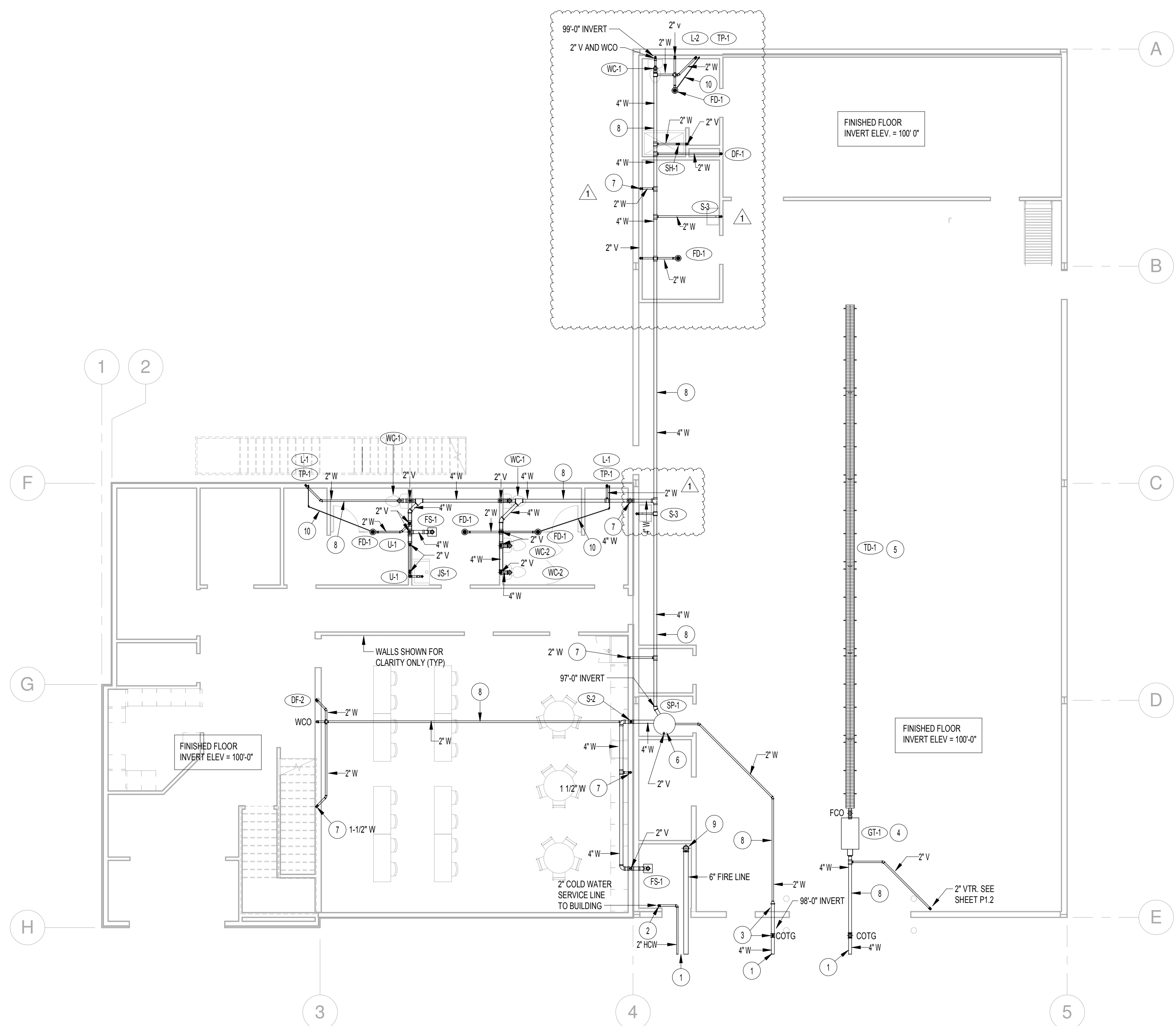
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08/20/21

M3.2

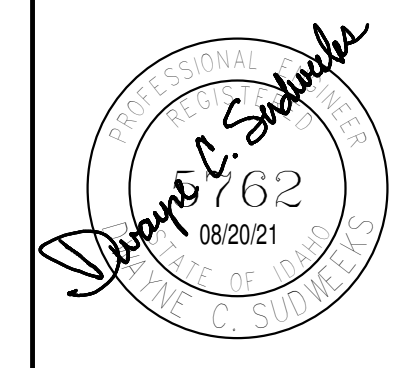


1 FOUNDATION PLUMBING PLAN
1/8" = 1'-0"

- PLAN NOTES:**
- 1 REFER TO SITE PLAN FOR CONTINUATION OF PIPING.
 - 2 RISE 2" COLD WATER LINE UP THRU FLOOR AND CONNECT TO PRESSURE REDUCING VALVE. REFER TO SHEET P1.1 FOR CONTINUATION. AND TO DETAIL F/P3.1 FOR TYPICAL INSTALLATION.
 - 3 EXTEND 2" PUMPED WASTE LINE OUTSIDE OF BUILDING. INCREASE LINE SIZE TO 4" BEFORE EXITING THE BUILDING. PROVIDE A CLEAN OUT TO GRADE IN CONCRETE APRON OF DOORWAY.
 - 4 PROVIDE SAND AND GREASE INTERCEPTOR IN FLOOR AND CONNECT TO TRENCH DRAIN. PROVIDE TOP EXTENSION AS REQUIRED ON INTERCEPTOR TO MATCH ELEVATION OF TRENCH DRAIN. EXTEND 4" WASTE LINE OUT FROM INTERCEPTOR WITH 2" VENT LINE UP THRU ROOF AS SHOWN.
 - 5 PROVIDE AND INSTALL NEW PRE-FAB TRENCH DRAIN AS SPECIFIED WITH END DRAIN LINE CONNECTION. REFER TO DETAIL MP3.1 FOR TYPICAL INSTALLATION.
 - 6 PROVIDE AND INSTALL (2) SEWAGE PUMPS IN 30" DIAMETER BY 36" DEEP FIBERGLASS RECEIVING TANK. SYSTEM TO BE COMPLETE WITH FLOAT SWITCH OPERATORS, GAS TIGHT LID, AND WALL MOUNTED CONTROL PANEL. (SEE SHEET P1.1) REFER TO DETAIL NP3.1 FOR TYPICAL SEWAGE PUMP INSTALLATION. FIELD CUT OPENING IN TANK FOR ALL WASTE LINES. (GRAVITY LINES AND PRESSURE LINE).
 - 7 WASTE PIPING DOWN FROM FIXTURE(S) ON UPPER LEVEL. (REFER TO SHEET P1.2) PROVIDE CLEANOUT AT 12" ABOVE FLOOR. PIPE SIZES AS INDICATED ON PLAN.
 - 8 ALL WASTE LINES BELOW FLOOR TO BE GRADED AT 1/4" SLOPE PER FOOT IN DIRECTION OF FLOW. FIELD VERIFY ACTUAL CONDITIONS AND COORDINATE ACTUAL PIPING ROUTES WITH FOOTING AND FOUNDATION WALL LOCATIONS.
 - 9 RISE 6" FIRE WATER PIPING UP THRU FLOOR AND CONNECT TO FIRE RISER AND ALARM VALVE. REFER TO SHEET P1.1 FOR RISER LOCATION AND TO DETAIL AP3.2 FOR TYPICAL PIPING CONNECTIONS.
 - 10 RUN 1/2" COLD WATER LINE FROM TRAP PRIMER TO FLOOR DRAIN. REFER TO DETAIL JP3.1 FOR TYPICAL INSTALLATION OF PIPING AND TRAP PRIMER ABOVE FLOOR.

NEW OFFICE BUILDING FOR:
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PLUMBING FOUNDATION PLAN

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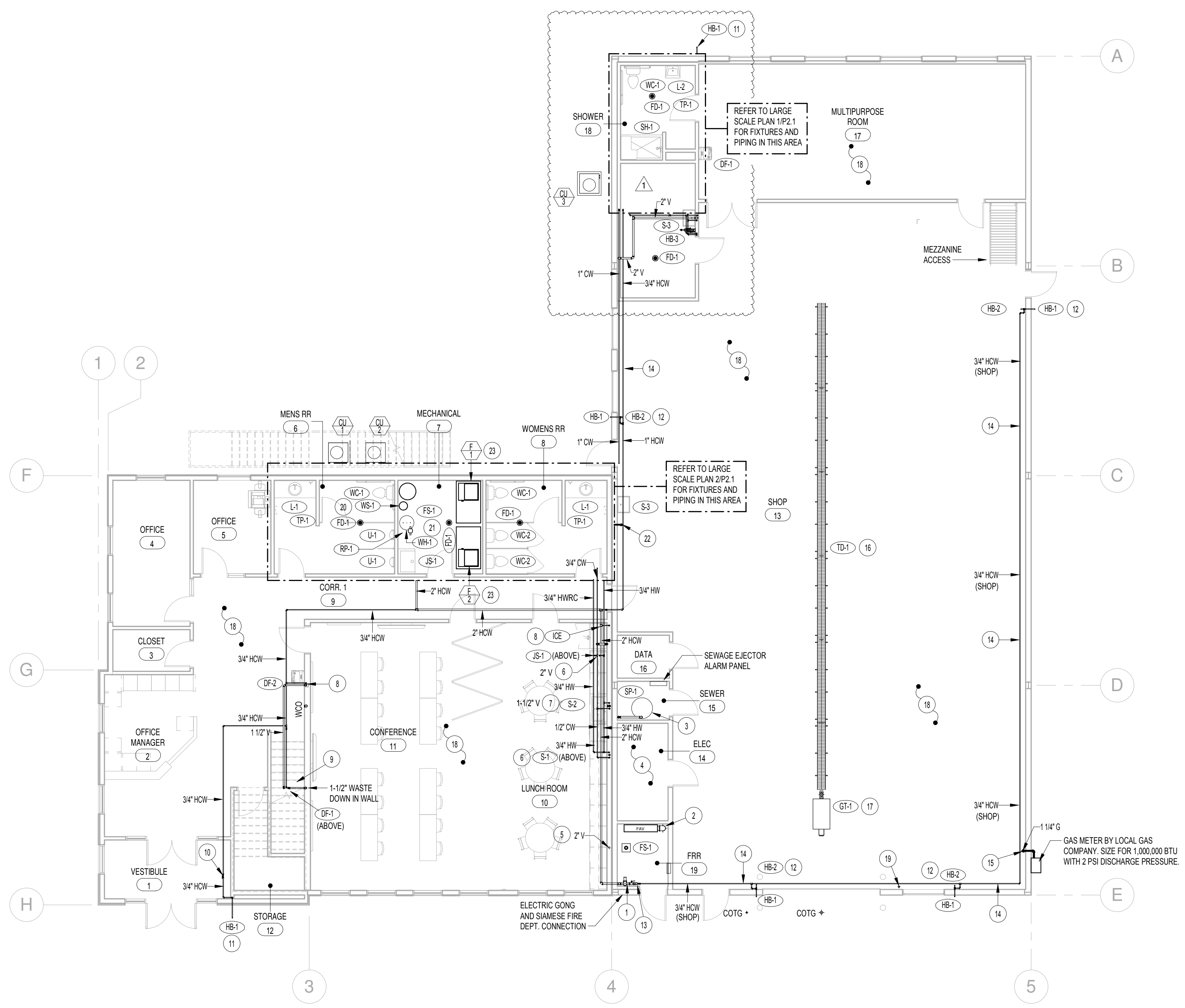
10/15/2021
OWNER REQUESTED CHANGES

GAS LOAD CALCULATIONS

F1	100,000 BTU
F2	100,000 BTU
F3	80,000 BTU
F4	130,000 BTU
F5	80,000 BTU
F6	105,000 BTU
F7	105,000 BTU
TOTAL BTU	700,000 BTU
TOTAL EQUIPMENT LOAD	700,000 BTU/CU.FT.
TOTAL DESIGN LOAD	1,000,000
DEVELOPED LENGTH OF PIPING	220 FT
DISCHARGE PRESSURE	2 PSI
GAS LINE SIZE	1-1/4"

PLAN NOTES:

- RISE 2" DOMESTIC WATER LINE UP THRU FLOOR AND CONNECT TO PRESSURE REDUCING STATION. SEE PLUMBING FOUNDATION PLAN ON SHEET P1.0 FOR CONTINUATION OF PIPING BELOW GRADE. REFER TO DETAIL FP3.1 FOR TYPICAL PIPING CONNECTIONS.
- RISE 6" FIRE WATER PIPING UP THRU FLOOR AND CONNECT TO FIRE RISER AND ALARM VALVE. REFER TO DETAIL AP3.2 FOR TYPICAL PIPING CONNECTION. ENTIRE BUILDING TO BE FIRE SPRINKLED AS REQUIRED TO MEET NFPA-13 CODE REQUIREMENTS.
- PROVIDE AND INSTALL (2) SEWAGE EJECTOR PUMPS IN 30" DIAMETER FIBERGLASS RECEIVING TANK. PROVIDE FLOAT SWITCHES AND GAS TIGHT LID WITH 2" VENT UP THRU ROOF. MOUNT ALARM PANEL ON WALL AS SHOWN. REFER TO DETAIL NP3.1 FOR TYPICAL INSTALLATION.
- DO NOT RUN ANY WATER, WASTE, OR VENT PIPING ABOVE ELECTRICAL ROOM. REFER TO ELECTRICAL DRAWINGS TO COORDINATE WITH ELECTRICAL CONDUITS OUT OF ROOM.
- RISE VENT PIPING IN WALL ABOVE. REFER TO UPPER LEVEL PLUMBING PLAN ON SHEET P1.2 FOR CONTINUATION OF VENT PIPING. COORDINATE PIPING WITH BUILDING STRUCTURE.
- RISE 1/2" HOT AND COLD WATER LINES UP IN WALL ABOVE TO CONNECT TO FIXTURE ON UPPER LEVEL. COORDINATE PIPING WITH BUILDING STRUCTURE. RISE FIXTURE VENT LINE UP IN WALL AS INDICATED. DROP WASTE LINE BELOW FLOOR. (SEE SHEET P1.0) REFER TO SHEET P1.2 FOR FIXTURE ABOVE AND VENT PIPING ON UPPER LEVEL.
- DROP 1/2" HOT AND COLD WATER LINES DOWN IN WALL AND CONNECT TO PLUMBING FIXTURE. RISE 1-1/2" VENT LINE UP IN WALL AS INDICATED. REFER TO SHEET P1.2 FOR FIXTURE ABOVE AND VENT PIPING ON UPPER LEVEL.
- DROP 1/2" "HARD" COLD WATER LINE DOWN IN WALL AND CONNECT TO PLUMBING FIXTURE OR DEVICE.
- RISE 1/2" "HARD" COLD WATER LINE UP IN WALL ABOVE AND CONNECT TO PLUMBING FIXTURE ON UPPER LEVEL. RISE 1-1/2" WASTE LINE DOWN FROM FIXTURE ON UPPER LEVEL. OFFSET WASTE PIPING IN CEILING SPACE AND DROP DOWN BELOW MAIN LEVEL FLOOR IN WALL AS SHOWN. REFER TO SHEET P1.2 FOR CONTINUATION OF VENT PIPING ON UPPER LEVEL AND TO SHEET P1.0 FOR CONTINUATION OF WASTE PIPING BELOW FLOOR.
- SHUT-OFF VALVE FOR EXTERNAL HOSE BIBB. LOCATE VALVE IN ACCESSIBLE LOCATION AND LABEL.
- DROP 3/4" COLD WATER LINE DOWN IN INTERIOR WALL. EXTEND PIPING OUT TO HOSE BIBB. LENGTH OF HOSE BIBB TO SUIT WALL THICKNESS. REFER TO DETAIL CP3.1 FOR TYPICAL INSTALLATION.
- DROP 3/4" CW (SHOP) DOWN WALL AND CONNECT TO INTERIOR AND EXTERIOR HOSE BIBBS. PROVIDE SHUT-OFF VALVE IN VERTICAL PIPING. REFER TO DETAIL BP3.1 FOR TYPICAL INSTALLATION. COORDINATE PIPING WITH BUILDING STRUCTURE AND OTHER EQUIPMENT SUPPLIED.
- PROVIDE REDUCED PRESSURE BACKFLOW PREVENTER FOR 3/4" "SHOP" WATER. LOCATE DEVICE IN FIRE RISE ROOM AND PIPE DRAIN LINE TO NEAREST FLOOR SINK. REFER TO DETAIL AP3.1 FOR TYPICAL INSTALLATION OF BACKFLOW PREVENTION DEVICE.
- RUN PIPING IN SHOP ALONG WALL AT ABOUT 10'-0" ABOVE FLOOR. COORDINATE PIPING WITH OTHER PIPING, BUILDING STRUCTURE, AND EQUIPMENT PROVIDED. RISE LINES UP AND OVER THE TOP OF ALL OVERHEAD DOORS AS REQUIRED.
- RISE 1-1/4" GAS LINE FROM METER UP INSIDE WALL TO EQUIPMENT ABOVE. REFER TO SHEET P2.1 FOR CONTINUATION OF GAS PIPING ON UPPER LEVEL AND ROOF.
- PROVIDE AND INSTALL NEW PRE-FAB TRENCH DRAIN AS SPECIFIED. DRAIN TO SLOPE TO CATCH BASIN AND INTERCEPTOR AS SHOWN. END SECTION TO HAVE END OUTLET CONNECTION. REFER TO DETAIL MP3.1 FOR TYPICAL INSTALLATION.
- PROVIDE AND INSTALL SAND AND GREASE INTERCEPTOR AS SPECIFIED. INTERCEPTOR TO BE FLUSHED WITH FLOOR AND HAVE REMOVABLE (TRAFFIC RATED) COVER. REFER TO FOUNDATION PLAN ON SHEET P1.0 FOR CONTINUATION OF WASTE LINE BELOW FLOOR AND TO DETAIL DP3.1 FOR TYPICAL INSTALLATION.
- ENTIRE BUILDING TO BE FIRE SPRINKLED AS REQUIRED TO MEET NFPA-13 CODE REQUIREMENTS. FIRE SPRINKLER CONTRACTOR TO COORDINATE LOCATIONS OF PIPING AND HEADS WITH ALL OTHER TRADES. FIRE PIPING TO GO AROUND MECHANICAL EQUIPMENT, ROOF OPENINGS, AND LARGE DUCTWORK.
- RISE 2" VENT UP WALL TO ROOF LEVEL. OFFSET AND RISE UP THRU ROOF AT 3'-0" MINIMUM FROM EDGE OF ROOF. SEE SHEET P1.2.
- PROVIDE AND INSTALL WATER SOFTENER AS SPECIFIED. CONNECT TO 2" COLD WATER LINE. REFER TO DETAIL GP3.1 FOR TYPICAL CONNECTIONS.
- PROVIDE AND INSTALL ELECTRIC WATER HEATER AS SPECIFIED COMPLETE WITH EXPANSION TANK, MIXING VALVE, RECIRCULATION PUMP, AND HEAT TRAP NIPPLES. REFER TO DETAIL HP3.1 FOR TYPICAL PIPING CONNECTIONS.
- DROP 3/4" GAS LINE DOWN FROM ABOVE RUN THRU CEILING SPACE AND CONNECT TO FURNACES. SEE LARGE SCALE PLAN 2P2.2 FOR CONTINUATION.
- FURNACE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. PLUMBING CONTRACTOR TO ROUGH-IN AND CONNECT 3/4" GAS LINE WITH PRESSURE REGULATOR, SHUT-OFF VALVE, AND FLEXIBLE HOSE. SEE DETAIL KP3.1 FOR TYPICAL PIPING CONNECTION AND TO LARGE SCALE PLAN 2P2.1 FOR PIPING LOCATIONS AND RUN FROM COOLING COIL AND FURNACE TO FLOOR DRAIN.



1 MAIN LEVEL PLUMBING PLAN
1/8" = 1'-0"

08/13/2021

OWNER REQUESTED CHANGES

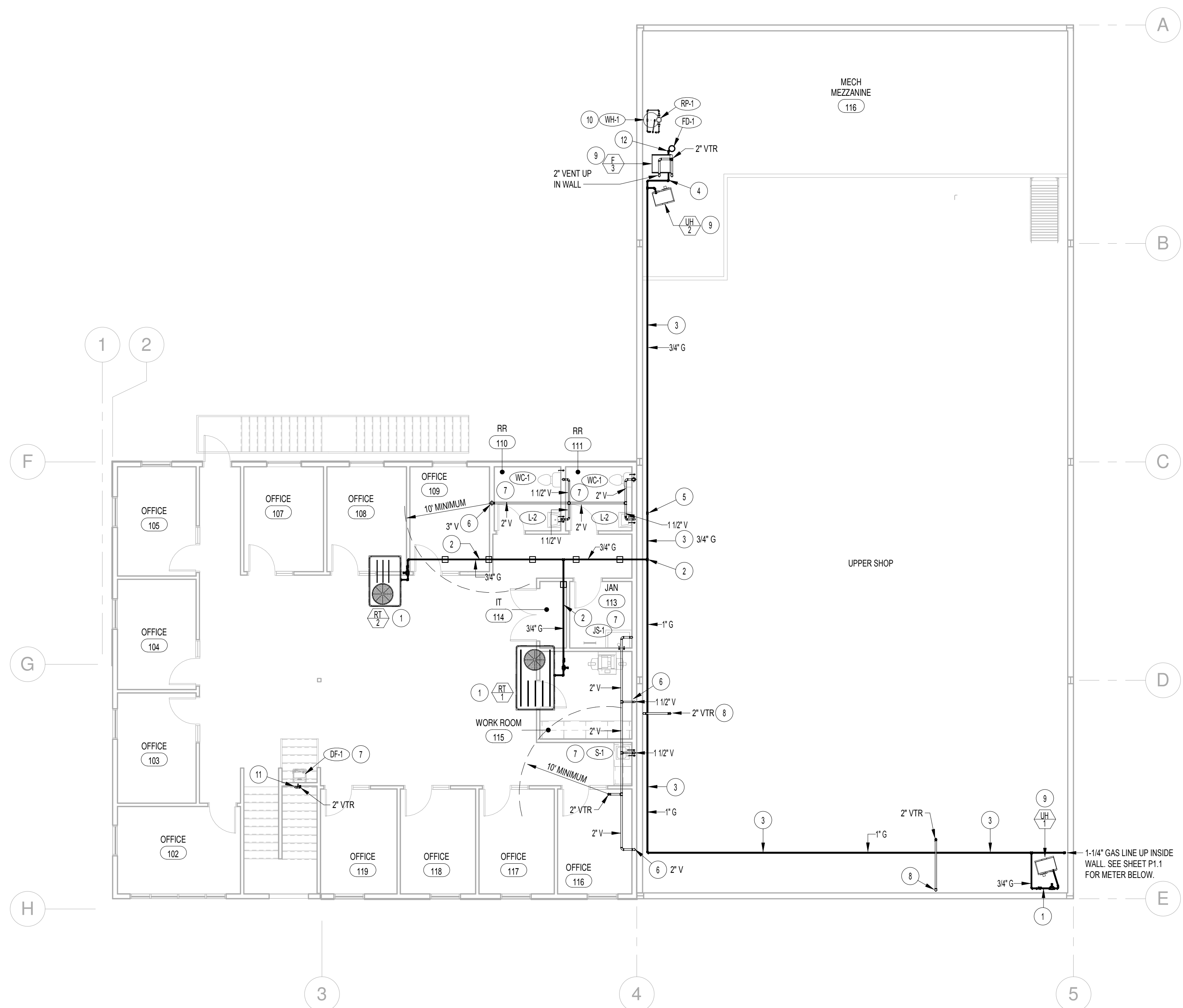
10-16-2021

NEW OFFICE BUILDING FOR:
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MAIN LEVEL PLUMBING PLAN

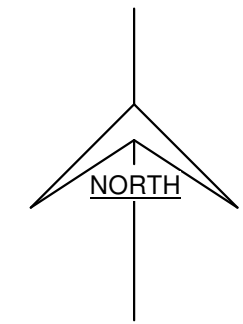
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DATE: 08/13/2021
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P1.1



1 UPPER LEVEL PLUMBING PLAN
1/8" = 1'-0"



- PLAN NOTES:**
- ROOFTOP EQUIPMENT INSTALLED BY MECHANICAL CONTRACTOR. PLUMBING CONTRACTOR TO ROUGH-IN AND CONNECT 3/4" GAS LINE WITH SHUT-OFF VALVE, PRESSURE REGULATOR, AND FLEXIBLE HOSE. REFER TO DETAIL LPS.1 FOR TYPICAL PIPING CONNECTION.
 - RISE 3/4" (2 PSI) GAS LINE UP THRU ROOF. RUN PIPING ON ROOF TO ROOFTOP EQUIPMENT AS SHOWN. FLASH AND SEAL ROOF WATER TIGHT. SUPPORT PIPING ON ROOF WITH PYRAMID TYPE SUPPORT AT 6'-0" MAXIMUM ON CENTER SPACING.
 - RUN GAS PIPING THRU SHOP AT BOTTOM OF ROOF JOISTS. SUPPORT FROM ROOF STRUCTURE AT 6'-0" MAXIMUM ON CENTER SPACING. COORDINATE PIPE ROUTING WITH BUILDING STRUCTURE AND OTHER PIPING.
 - DROP 3/4" (2PSI) GAS LINE DOWN IN MECHANICAL MEZZANINE ROOM AND CONNECT TO FURNACE. PROVIDE SHUT-OFF VALVE, PRESSURE REGULATOR, AND FLEXIBLE HOSE. REFER TO DETAIL K/P3.1 FOR TYPICAL GAS PIPING TO INDOOR EQUIPMENT.
 - DROP 3/4" (2 PSI) GAS LINE DOWN AND EXTEND THRU WALL AT MAIN LEVEL CEILING SPACE ELEVATION. RUN PIPING TO MECHANICAL ROOM ON MAIN LEVEL AND CONNECT TO (2) FURNACE. REFER TO LARGE SCALE TOILET ROOM PLAN 2/P2.1 FOR CONTINUATION OF PIPING ON MAIN LEVEL.
 - RISE VENT FROM MAIN LEVEL FIXTURES UP IN WALL TO ABOVE CEILING. REFER TO SHEET P1.1 FOR CONTINUATION OF PIPING ON MAIN LEVEL. LINE SIZES AS TO BE AS INDICATED.
 - PROVIDE AND INSTALL PLUMBING FIXTURE ON UPPER LEVEL AS SPECIFIED. WASTE AND WATER PIPING TO RISE UP THRU FLOOR TO CONNECT TO FIXTURE. REFER TO SHEET P1.1 FOR CONTINUATION OF PIPING BELOW.
 - RISE 2" VENT UP FROM BELOW. OFFSET IN SHOP AND EXTEND THRU ROOF AT 5'-0" MINIMUM FROM HIGHER ROOF EDGE.
 - UNIT HEATER AND/OR FURNACE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. PLUMBING CONTRACTOR TO ROUGH-IN AND CONNECT 3/4" GAS LINE WITH PRESSURE REGULATOR, SHUT-OFF VALVE, AND FLEXIBLE HOSE. REFER TO DETAIL K/P3.1 FOR TYPICAL GAS PIPING TO INDOOR EQUIPMENT.
 - INSTALL WATER HEATER ON MEZZANINE FLOOR. PROVIDE DRAIN PAN BELOW WATER HEATER. PIPING DRAIN PAN AND T&P RELIEF VALVE TO FLOOR DRAIN. WATER HEATER TO BE COMPLETE WITH MIXING VALVE, HEAT TRAP NIPPLES, EXPANSION TANK, AND RECIRC PUMP. REFER TO DETAIL H/P3.1 FOR TYPICAL WATER HEATER INSTALLATION.
 - RISE 1-1/2" VENT UP FROM MAIN LEVEL FIXTURE. (SEE SHEET P1.1) ENLARGE VENT ABOVE UPPER LEVEL CEILING AND EXTEND 2" VENT THRU ROOF. CONNECT UPPER LEVEL FIXTURE VENT ABOVE CEILING.
 - RUN 3/4" CONDENSATE DRAIN LINE FROM EACH FURNACE SYSTEM TO NEAREST FLOOR DRAIN. REFER TO DETAILS A/M3.2 OR B/M3.2 FOR TYPICAL PIPING CONNECTIONS TO UP-FLOW AND/OR DOWN-FLOW FURNACES.

08/13/2021

OWNER REQUESTED CHANGES

10-16-2021

NEW OFFICE BUILDING FOR:

ARI
TWIN FALLS, ID
UPPER LEVEL PLUMBING PLAN

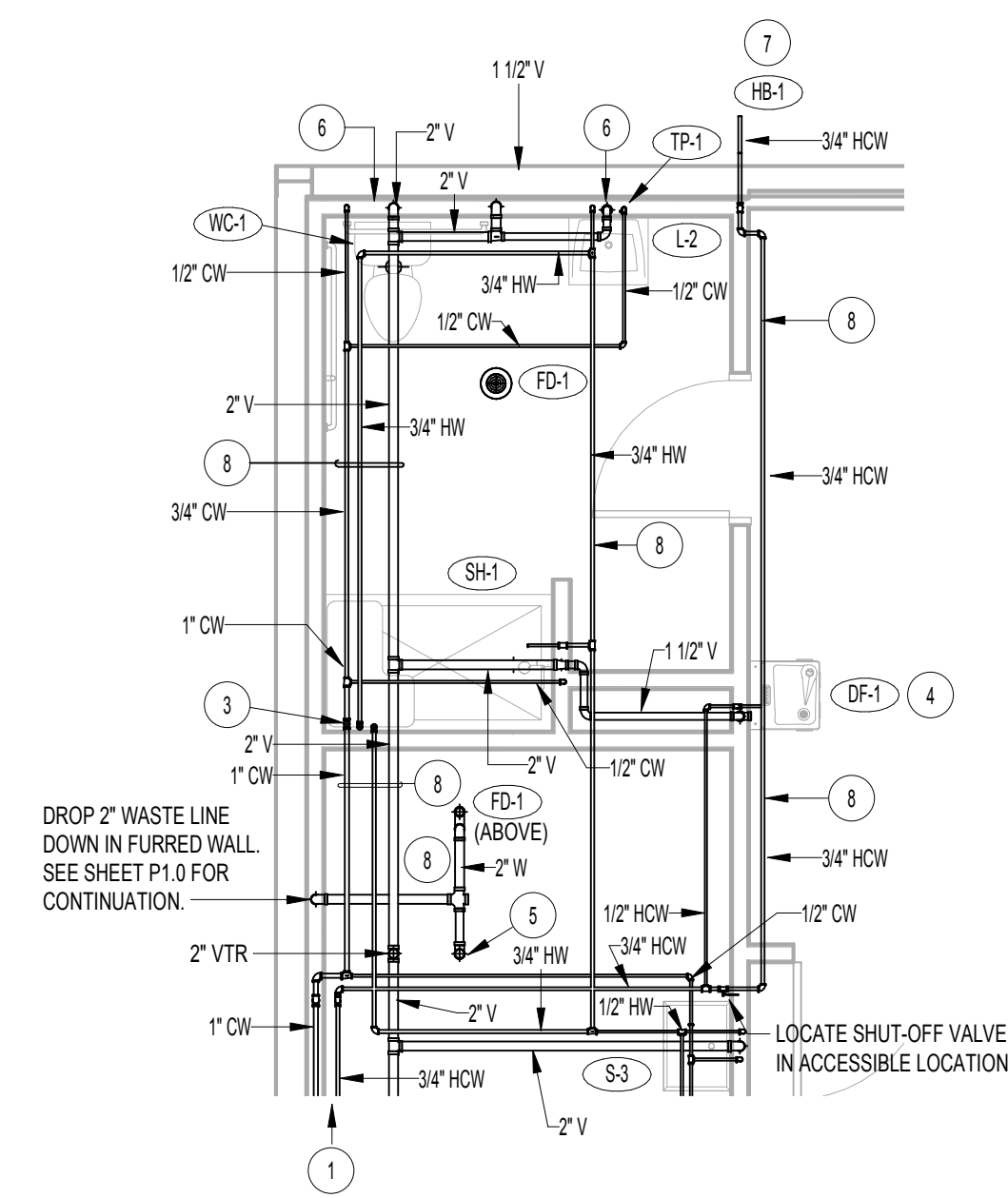
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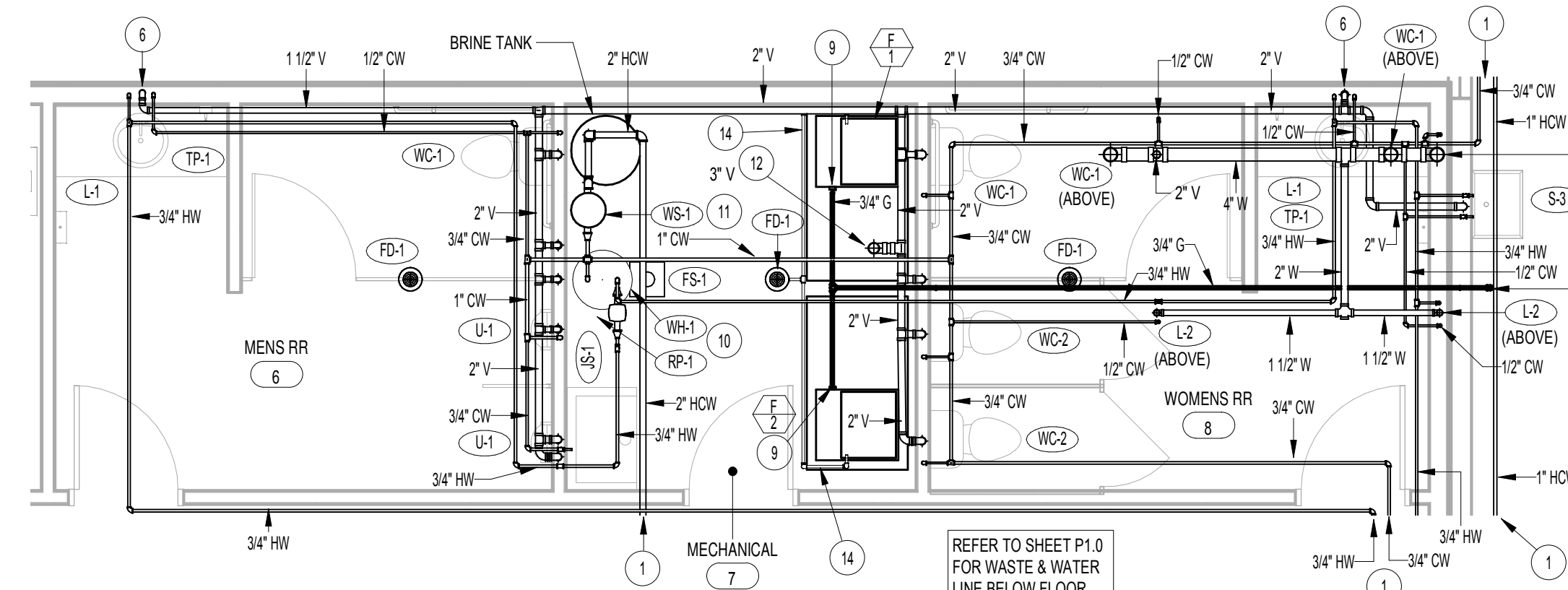
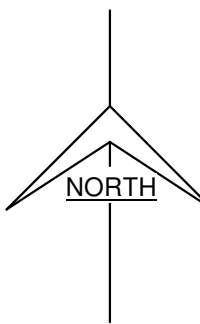
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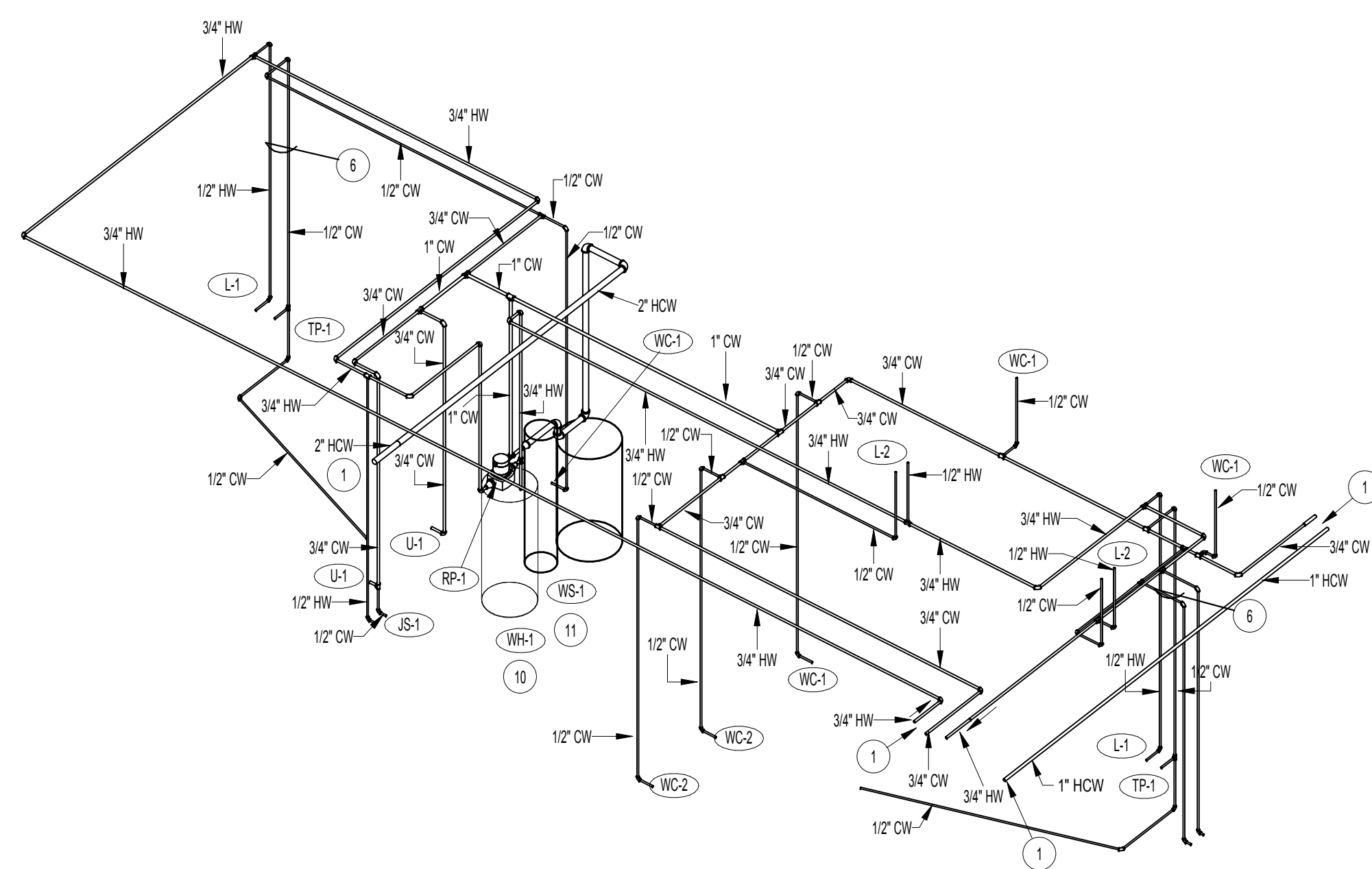
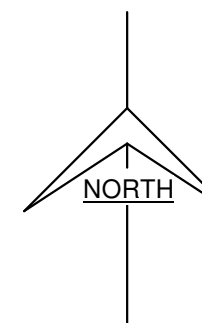
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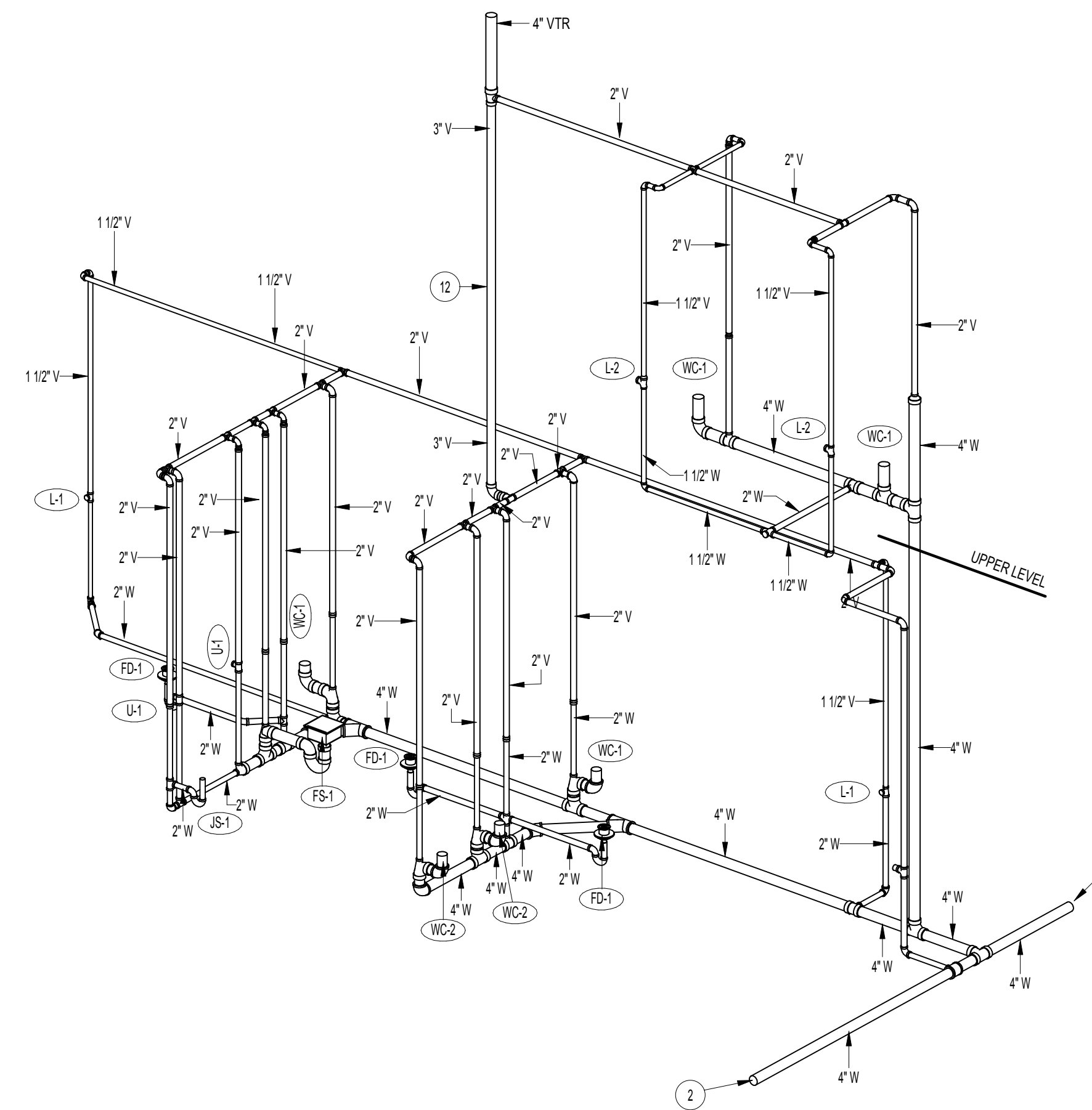
1 LARGE SCALE SHOWER ROOM - MAIN LEVEL
1/4" = 1'-0"



2 LARGE SCALE TOILET ROOMS - MAIN LEVEL
1/4" = 1'-0"



3 WATER PIPING ISOMETRIC (MAIN LEVEL)



4 WASTE AND VENT RISER DIAGRAM

PLAN NOTES:

- 1 REFER TO MAIN LEVEL PLUMBING ON SHEET P1.1 FOR CONTINUATION OF PIPING.
- 2 REFER TO FOUNDATION PLAN ON SHEET P1.0 FOR CONTINUATION OF PIPING.
- 3 RISE 3/4" COLD WATER (SOFT), 3/4" HOT WATER, AND 3/4" HOT WATER RECIRC. LINES UP THRU MEZZANINE FLOOR AND CONNECT TO WATER HEATER ABOVE. PIPING TO BE LOCATED IN CLOSE PROXIMITY OF WATER HEATER. REFER TO SHEET P1.2 FOR WATER HEATER LOCATION ON MEZZANINE.
- 4 DROP 1/2" HARD COLD WATER DOWN IN WALL AND CONNECT TO DRINKING FOUNTAIN. RISE 1-1/2" VENT UP IN WALL, OFFSET IN JOIST SPACE AS SHOWN TO CONNECT TO OTHER VENT PIPING.
- 5 RISE 2" VENT PIPING FROM FLOOR DRAIN UP IN RAILING WALL ABOVE. OFFSET VENT PIPING ABOVE FLOOR WHILE STILL IN RAILING WALL ABOVE TO CONNECT TO VENT THRU ROOF.
- 6 DROP WATER LINES DOWN IN FURRED WALL CAVITY FOR FIXTURES. WATER LINES TO BE LOCATED IN SHOP OR IN AN ACCESSIBLE LOCATION ABOVE CEILING. REFER TO DETAIL OP3.1 FOR TYPICAL INSTALLATION.
- 7 DROP 3/4" "HARD" COLD WATER LINE DOWN IN WALL FOR HOSE BIBB. HOSE BIBB LENGTH TO SUIT WALL THICKNESS FOR FREEZE PROTECTION. LOCATE SHUT-OFF VALVE IN SHOP FOR EASY ACCESS. REFER TO C/P3.1 FOR TYPICAL INSTALLATION.
- 8 ALL VENT AND WATER PIPING TO BE RUN IN JOIST SPACE OF MEZZANINE FLOOR. COORDINATE PIPING RUNS WITH FLOOR JOISTS, DUCTWORK, ELECTRICAL CONDUITS, AND LIGHT FIXTURES. REFER TO SHEET M1.1 FOR DUCTWORK LOCATIONS.
- 9 GAS FIRED FURNACE TO BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. PLUMBING CONTRACTOR TO ROUGH-IN AND CONNECT 3/4" GAS LINE WITH PRESSURE REGULATOR, SHUT-OFF VALVE, AND FLEXIBLE HOSE. REFER TO DETAIL KP3.1 OR TYPICAL GAS LINE CONNECTION.
- 10 PROVIDE AND INSTALL ELECTRIC WATER HEATER AS SPECIFIED COMPLETE WITH RECIRC. PUMP, HEAT TRAP NIPPLES, EXPANSION TANK, AND MIXING VALVE. REFER TO DETAIL HP3.1 FOR TYPICAL CONNECTIONS.
- 11 PROVIDE AND INSTALL SINGLE WATER SOFTENER AND BRINE TANK AS SPECIFIED. CONNECT 2" COLD WATER SERVICE LINE TO BUILDING. REFER TO DETAIL GP3.1 FOR TYPICAL CONNECTIONS.
- 12 RISE 3" VENT UP IN WALL ABOVE AND EXTEND THRU ROOF. REFER TO UPPER LEVEL PLUMBING PLAN ON SHEET P1.2 FOR LOCATION OF VENT PIPING IN WALL AND VENT THRU ROOF.
- 13 RISE 3/4" GAS LINE (2 PSI) UP WALL AND CONNECT TO OVERHEAD GAS PIPING IN SHOP. REFER TO UPPER LEVEL PLUMBING PLAN ON SHEET P1.2 FOR GAS PIPING IN SHOP AREA.
- 14 RUN 3/4" CONDENSATE DRAIN LINE FROM EACH FURNACE SYSTEM TO NEAREST FLOOR DRAIN. REFER TO DETAILS AM3.2 OR BM3.2 FOR TYPICAL PIPING CONNECTIONS TO UP-FLOW AND/OR DOWN-FLOW FURNACES.

08/13/2021

OWNER REQUESTED CHANGES

NEW OFFICE BUILDING FOR:
ARI
TWIN FALLS, ID
LARGE SCALE PLUMBING PLANS

Laughlin Ricks Architecture
architecture/planning
935 Shoshone Street North • Twin Falls, Idaho 83301
(208) 736-8050 Fax: (208) 733-0950

Engineered Systems Associates

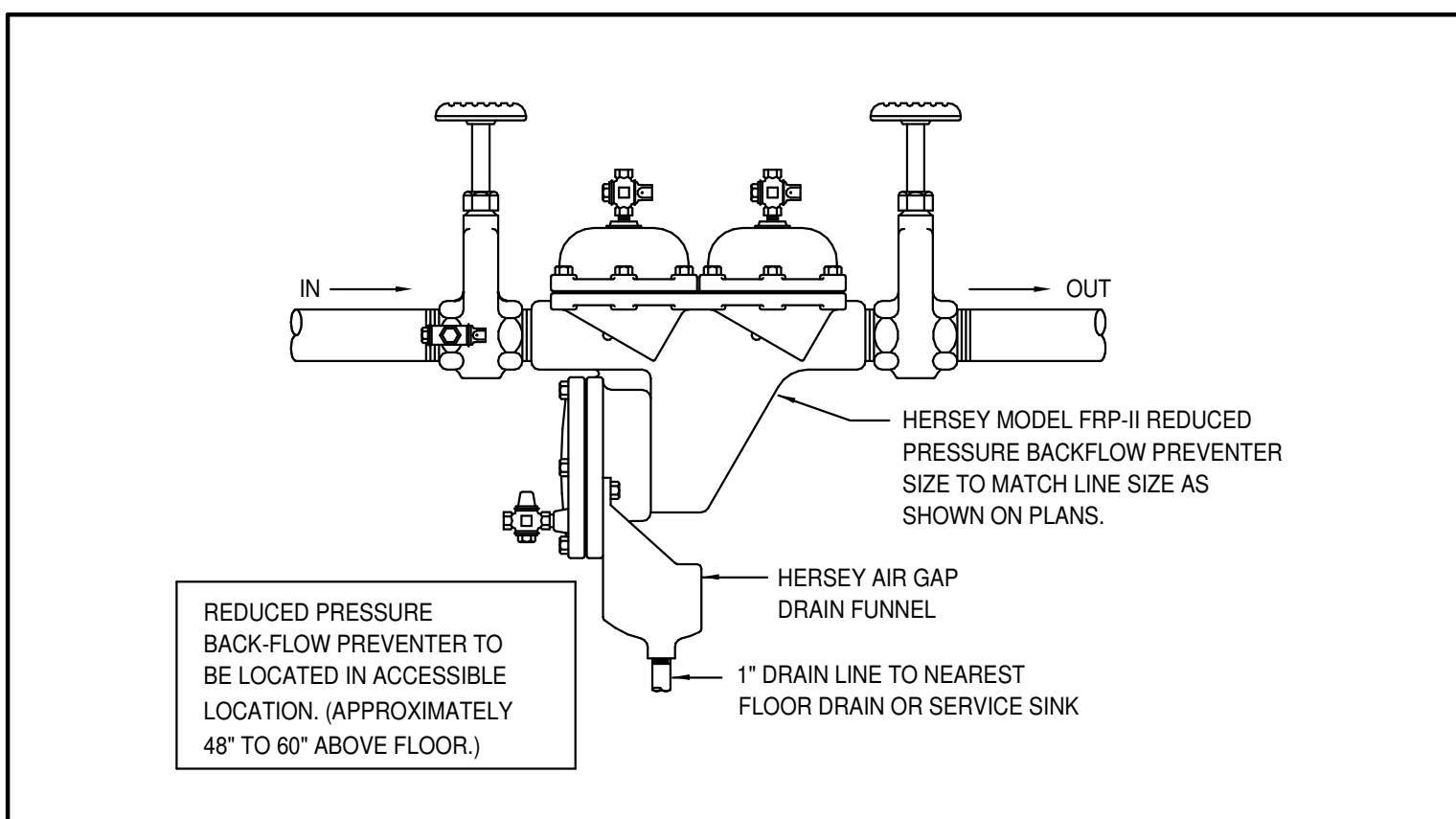
1355 EAST CENTER
POCATELLO, IDAHO 83201
PHONE: (208) 233-0501
FAX: (208) 233-0520
EMAIL: esa@engsystems.com

DATE: 08/13/2021

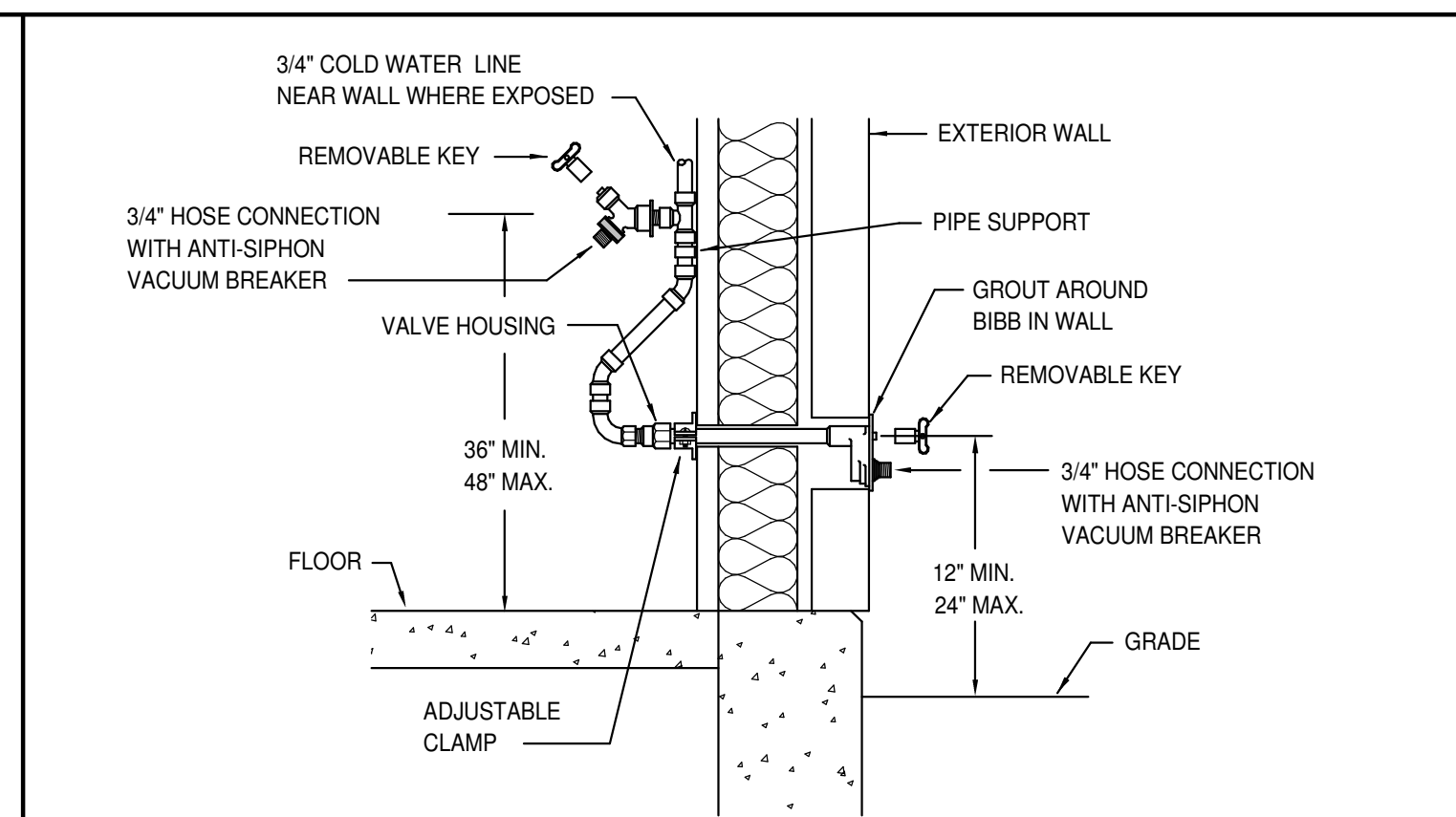
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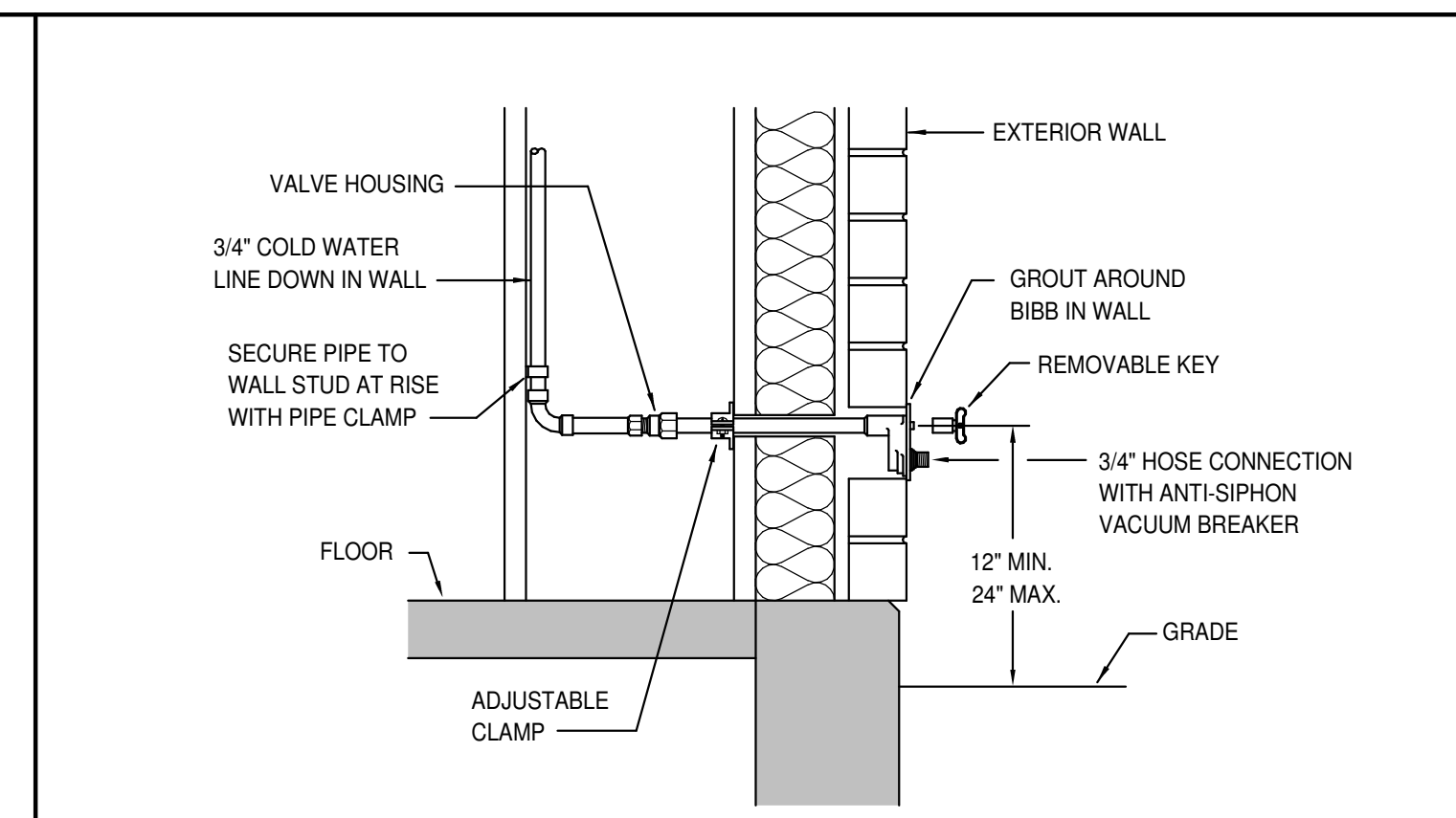
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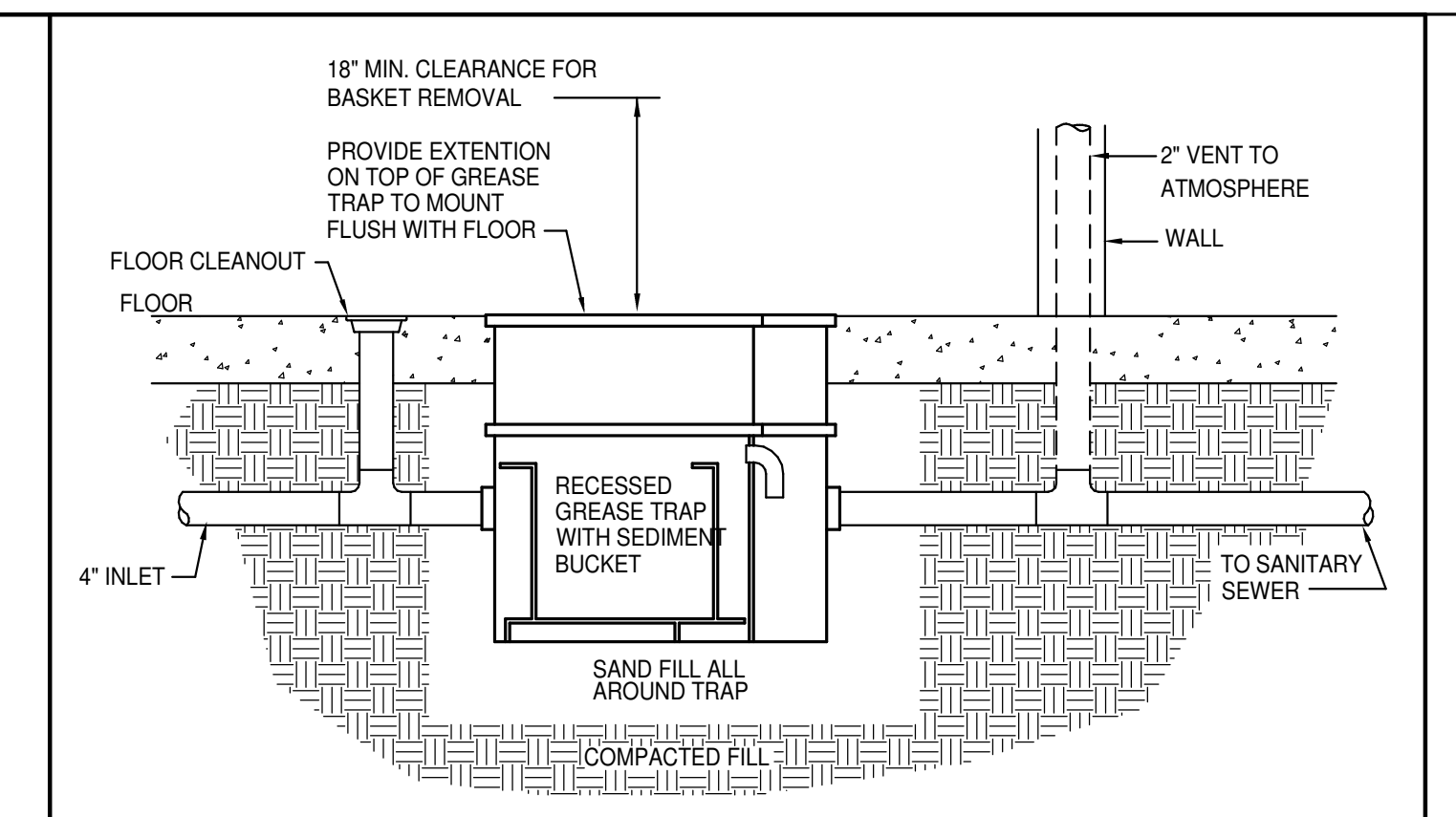
A | REDUCED PRESS. BACK-FLOW DEVICE NO SCALE



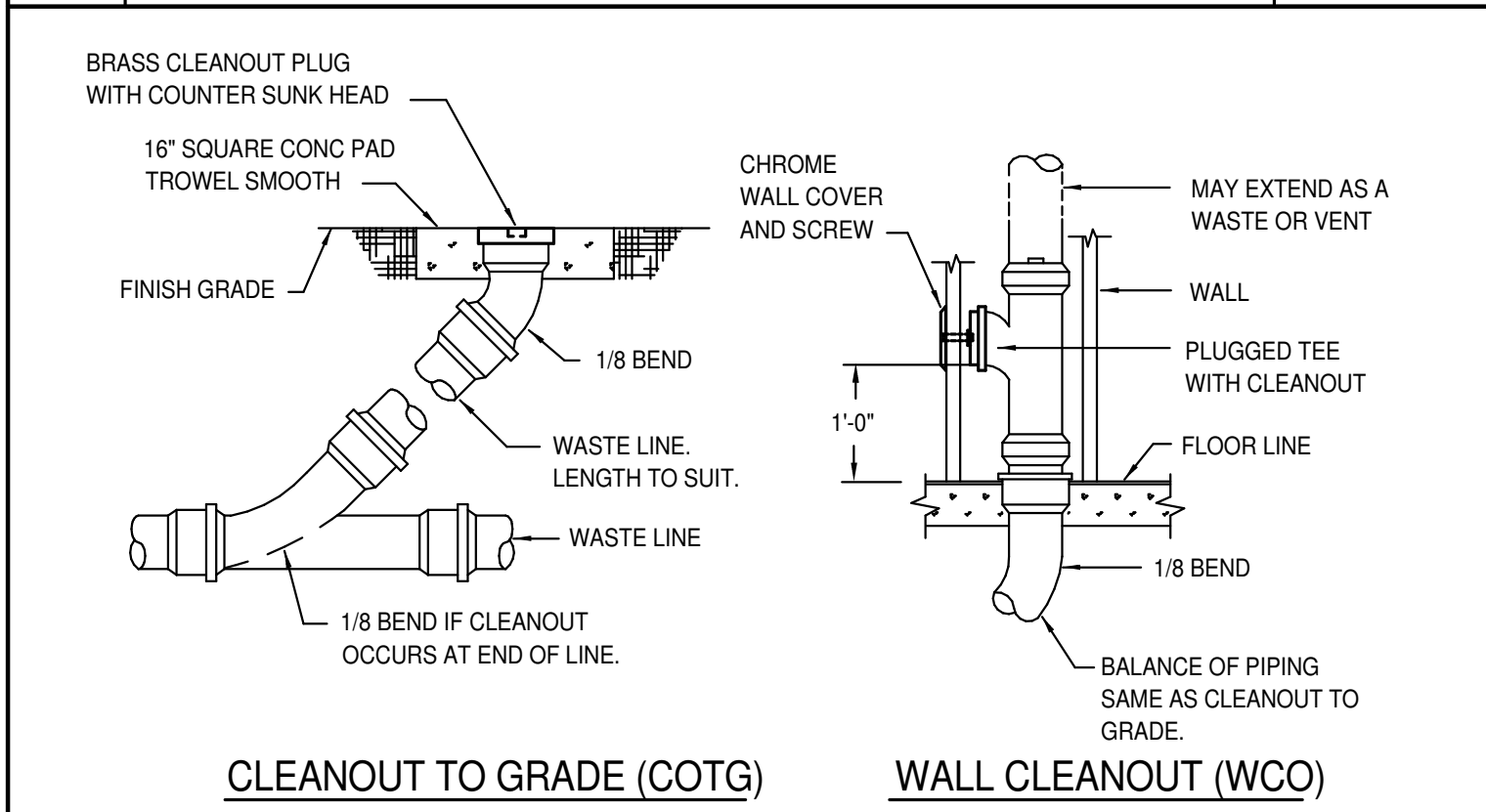
B | DUPLEX HOSE BIBB DETAIL NO SCALE



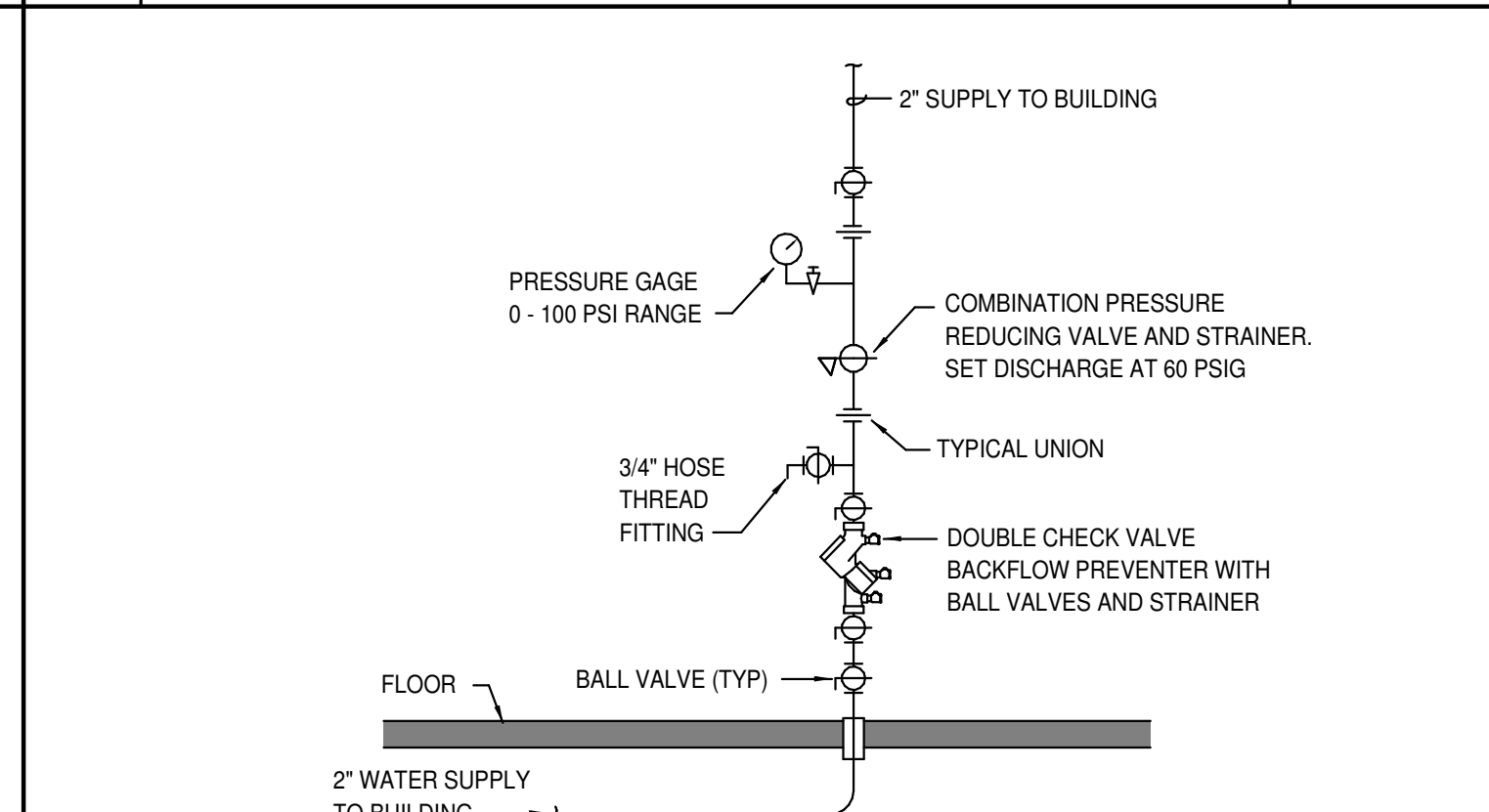
C | EXTERIOR HOSE BIBB DETAIL NO SCALE



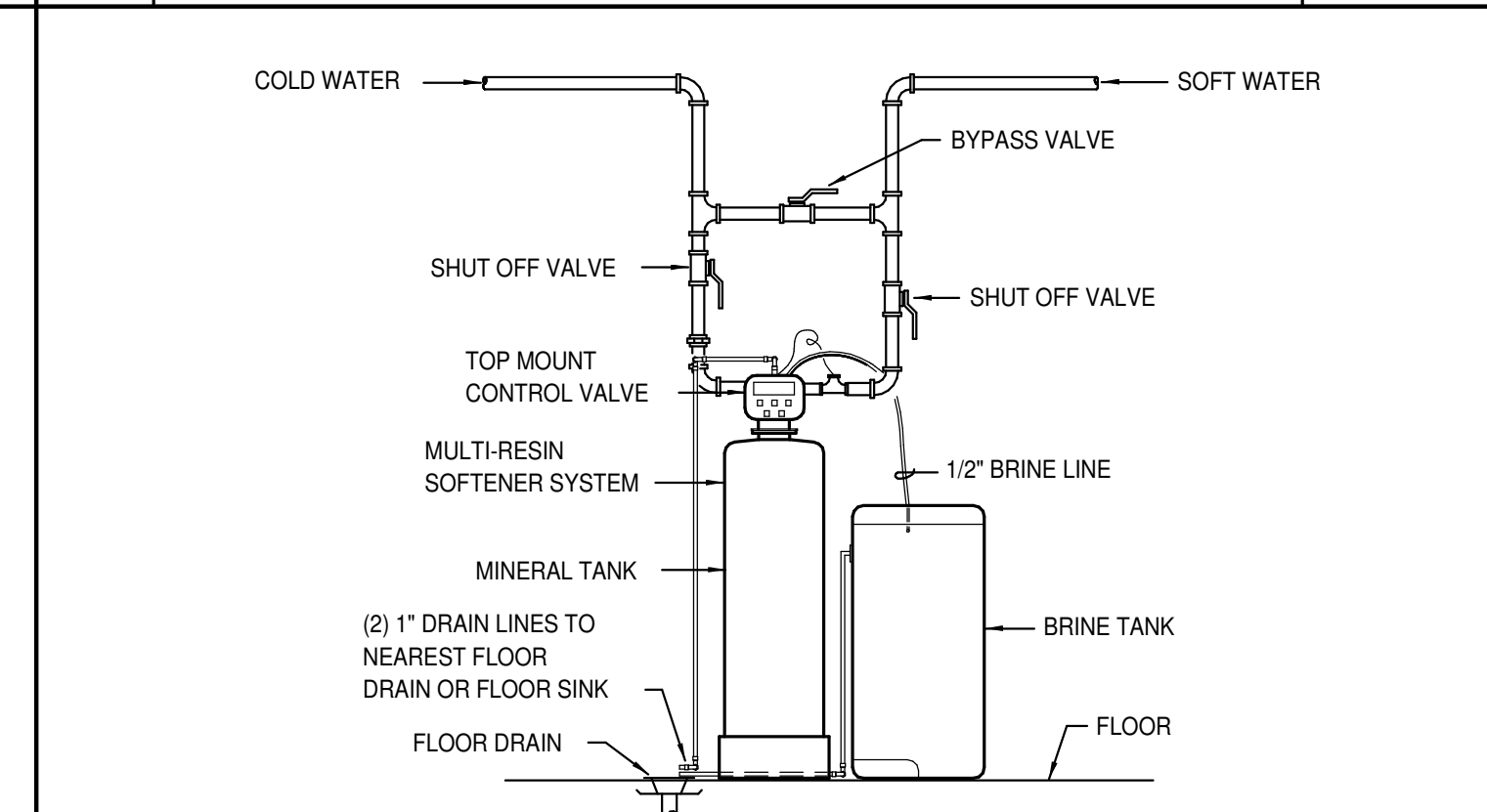
D | GREASE TRAP DETAIL NO SCALE



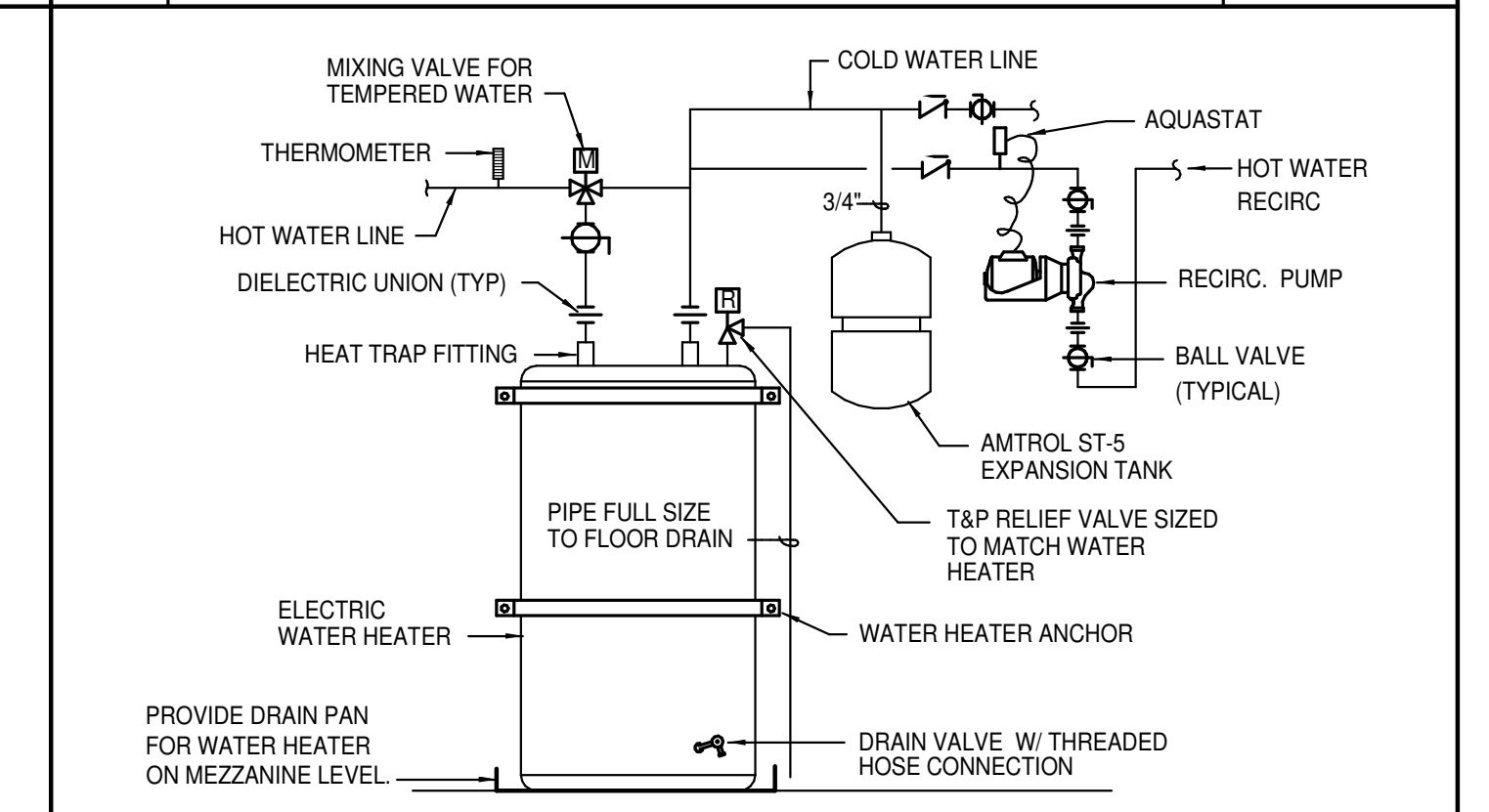
E | CLEAN OUT DETAILS NO SCALE



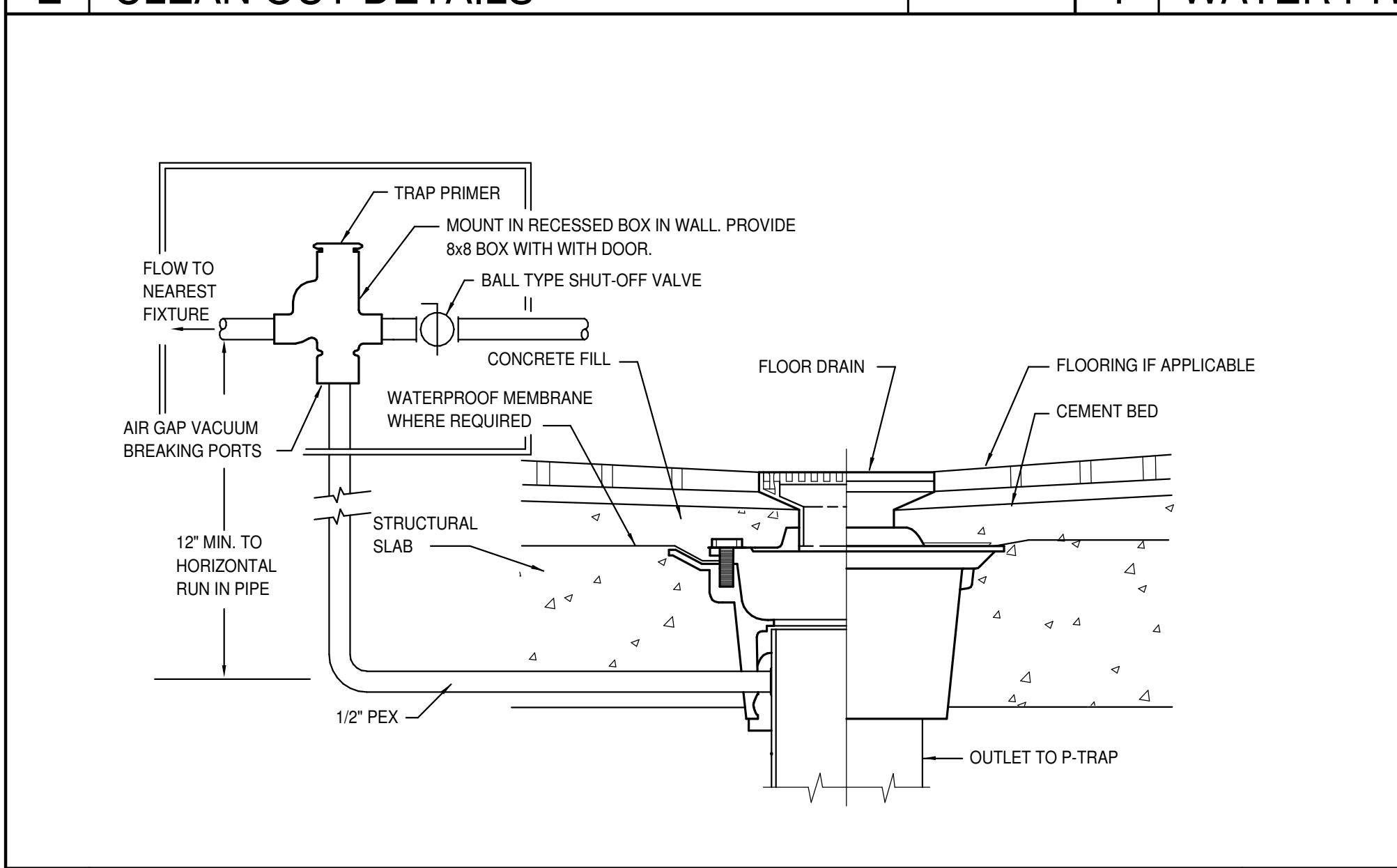
F | WATER PRV STATION DETAIL NO SCALE



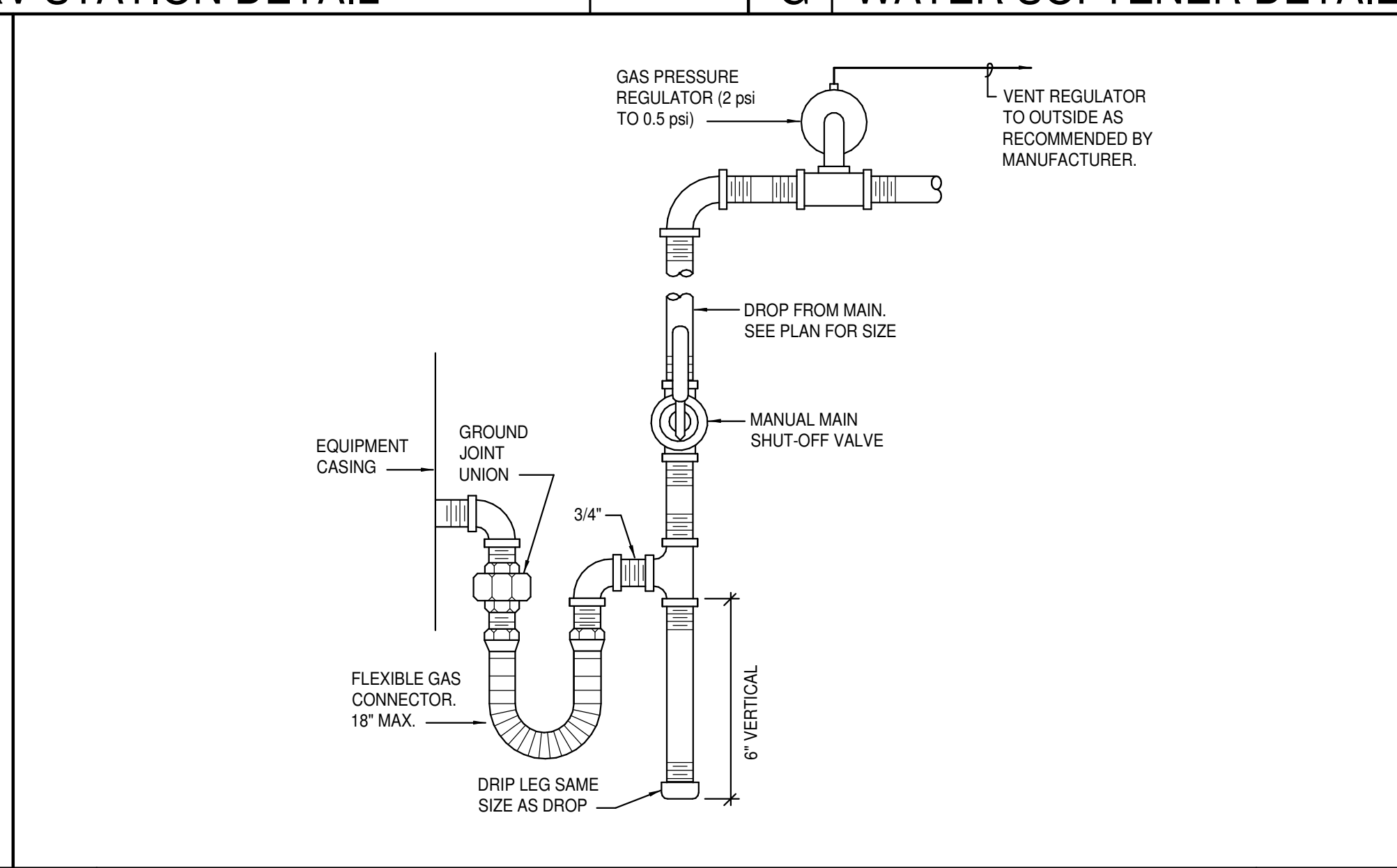
G | WATER SOFTENER DETAIL NO SCALE



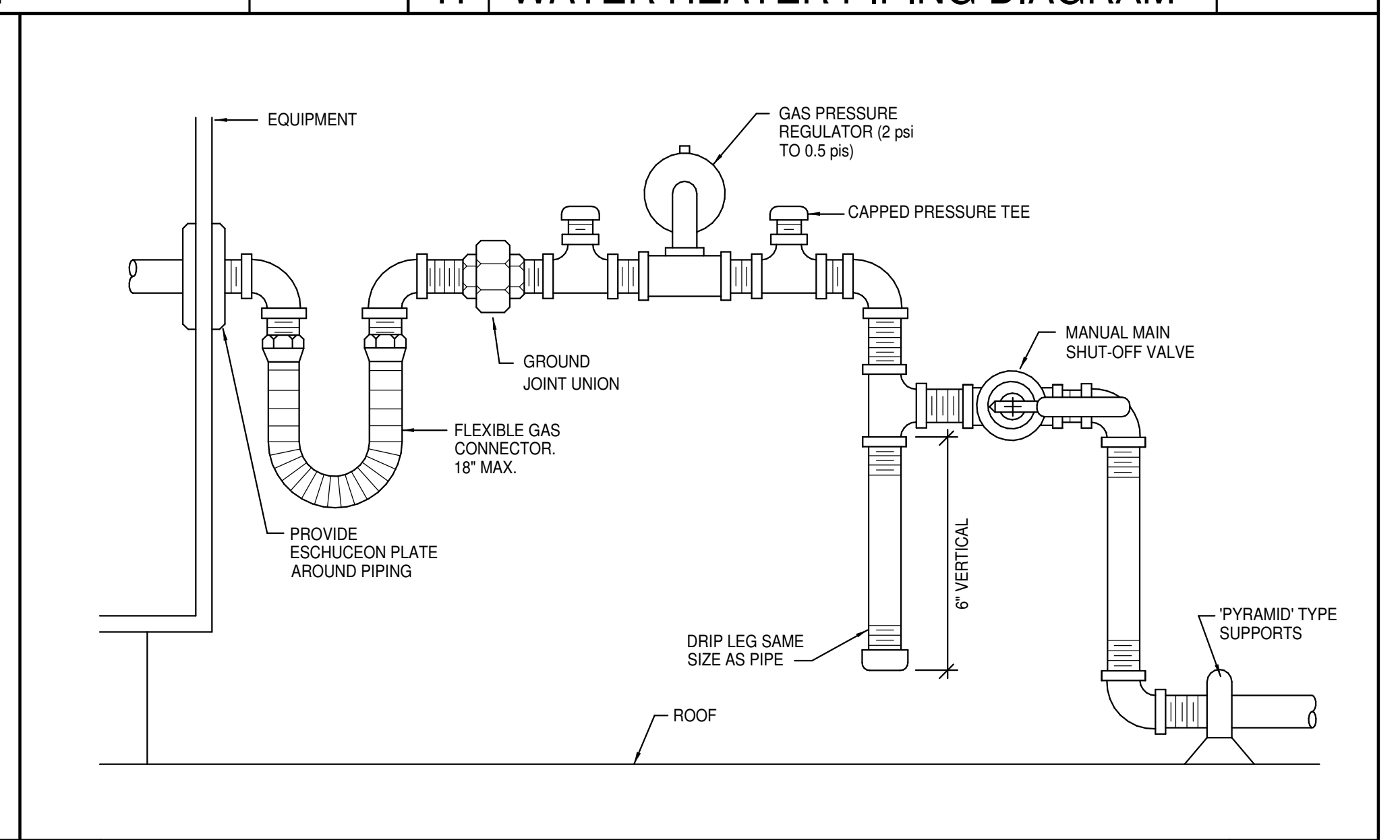
H | WATER HEATER PIPING DIAGRAM NO SCALE



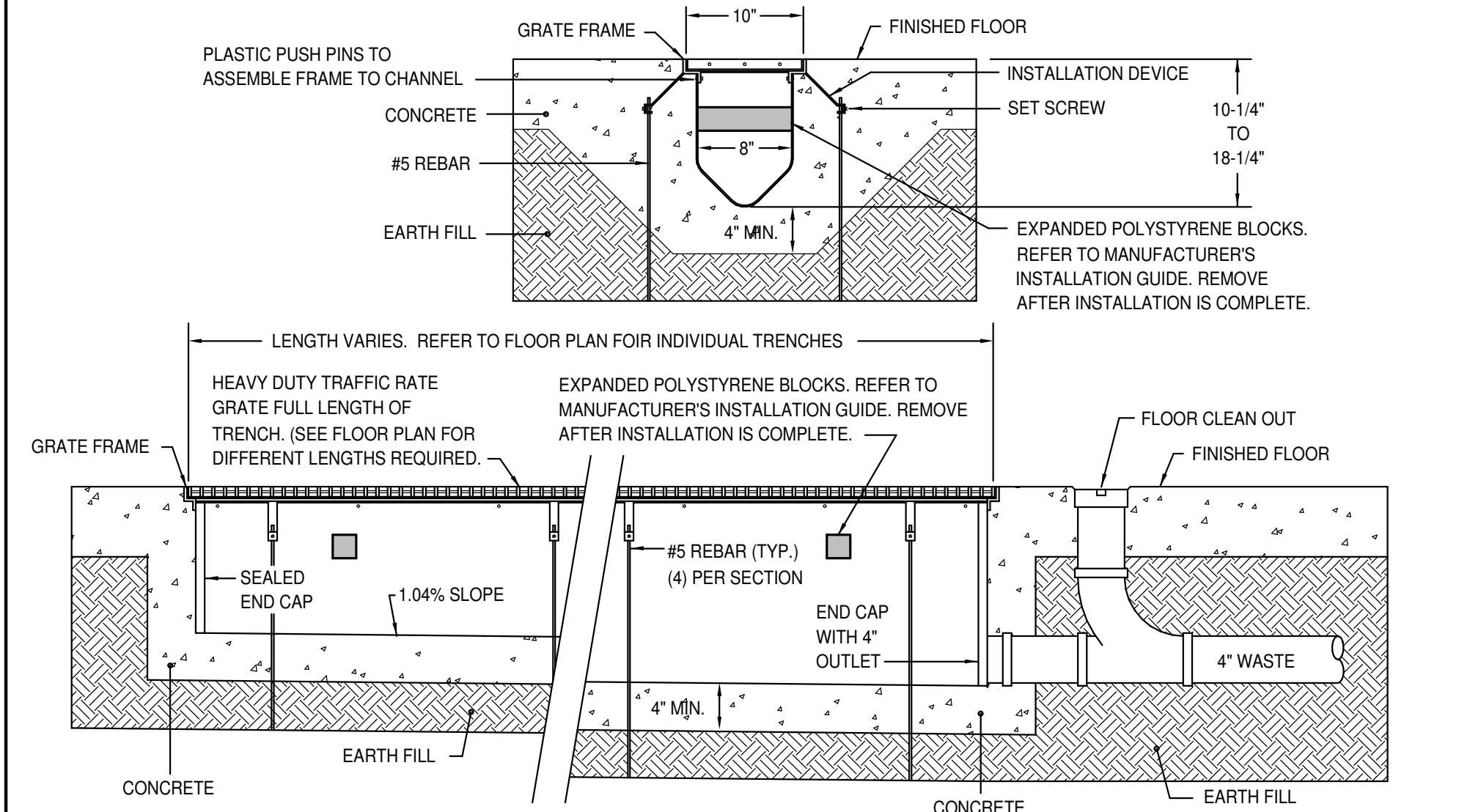
J | TRAP PRIMER INSTALLATION DETAIL NO SCALE



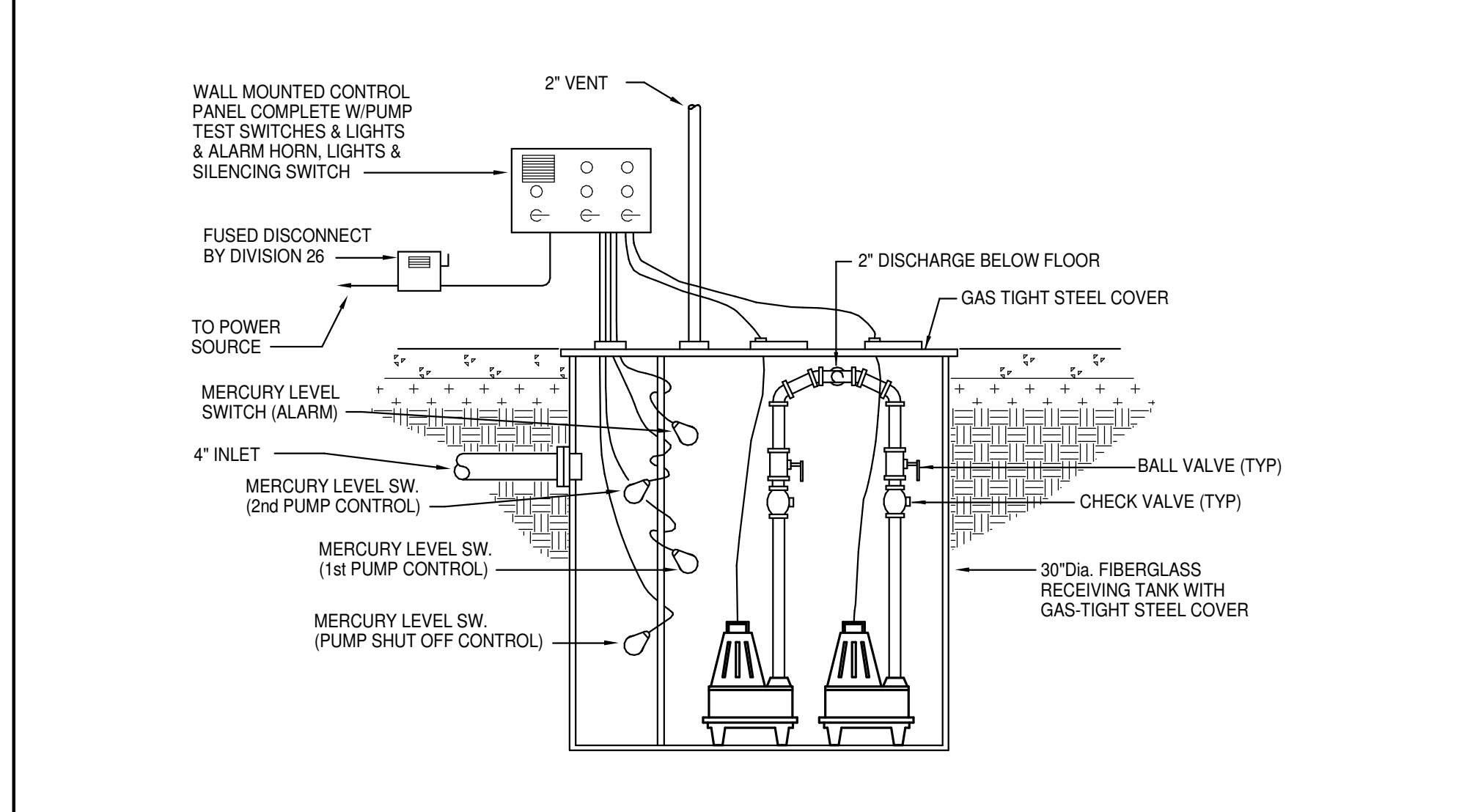
K | INTERIOR GAS LINE CONNECTION DETAIL NO SCALE



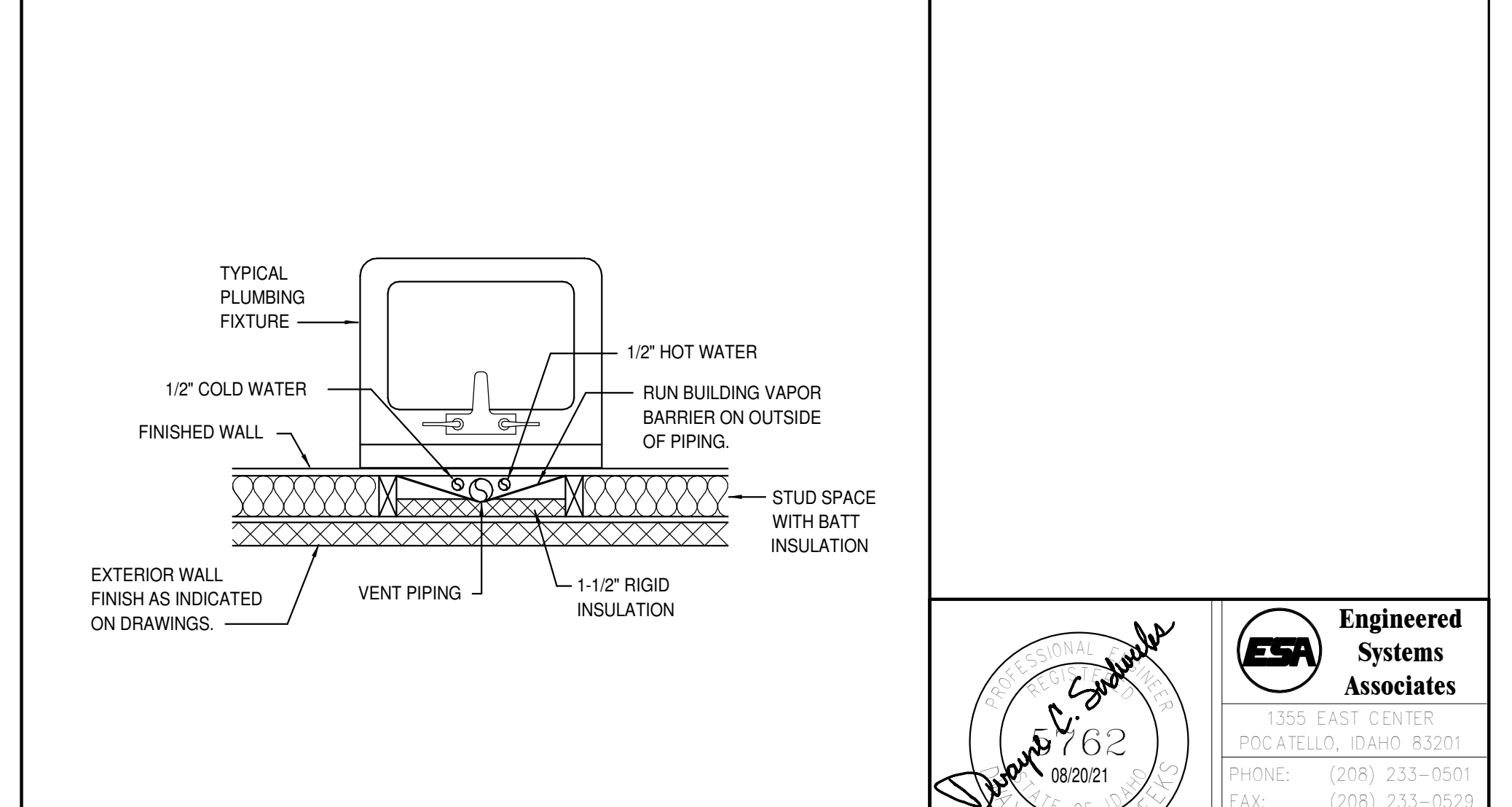
L | ROOF EQUIPMENT GAS LINE CONNECTION DETAIL NO SCALE



M | TRENCH DRAIN INSTALLATION DETAILS NO SCALE



N | SEWAGE EJECTOR PUMP DETAIL NO SCALE



O | PIPING IN EXTERIOR WALL NO SCALE

08/13/2021

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10/16/2021

NEW OFFICE BUILDING FOR:

ARI
TWIN FALLS, ID
PLUMBING DETAILS

Laughlin Ricks Architecture
architecture/planning
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(208) 736-8050 Fax: (208) 733-0950

DATE: 08/13/2021
BE DCS
Drawn Checked

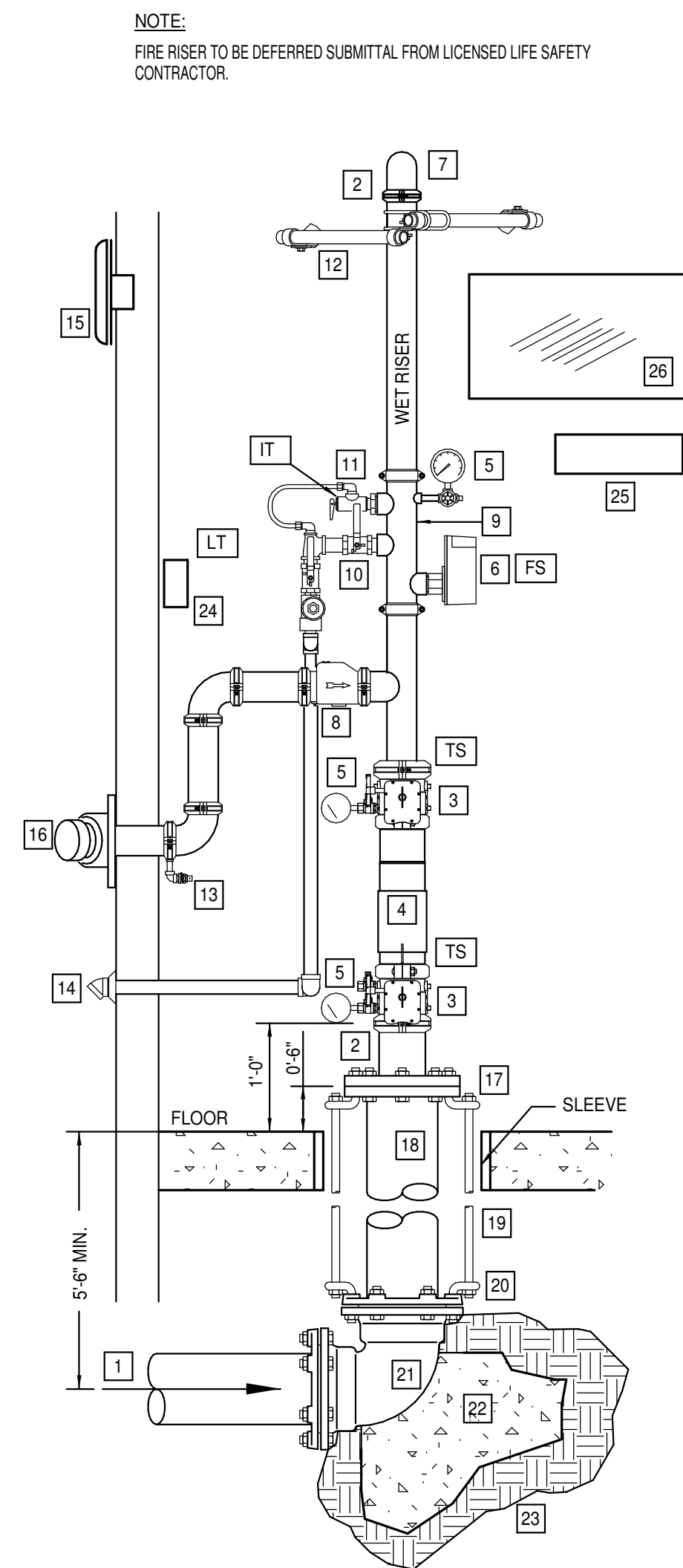
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ES&J JOB NUMBER: 21047

FIXTURE SCHEDULE					
SYM.	DESCRIPTION	HOT	COLD	WASTE	VENT
(WC-1)	ADA WATER CLOSET - KOHLER K-3493-0 "HIGHLINE" WITH ELONGATED BOWL, K-4670C OPEN FRONT SEAT, TRIP LEVER HANDLE AND BOLT CAPS.	---	1/2"	4"	2"
(WC-2)	WATER CLOSET - KOHLER K-4198-0 "WELLWORTH" WITH ELONGATED BOWL, K-4670C OPEN FRONT SEAT, TRIP LEVER HANDLE AND BOLT CAPS.	---	1/2"	4"	2"
(WH-1)	50 GALLON ELECTRIC WATER HEATER - A.O.SMITH MODEL PNT-50 WITH 50 GALLON CAPACITY, (2) 4.5 KW - NON-SIMULTANEOUS - ELEMENTS, (208/60/1), 3/4" SUPPLIES AND T&P RELIEF VALVE, THERMAL EXPANSION TANK, HEAT TRAP NIPPLES AND SYMMONS 7-200 MIXING VALVE. PROVIDE 10 YEAR WARRANTY. REFER TO DETAIL HP3.1 FOR TYPICAL PIPING CONNECTIONS.	3/4"	3/4"	---	---
(WS-1)	SINGLE WATER SOFTENER - DOMINATOR 980 SERIES, MODEL FP180 WITH 180,000 GRAIN CAPACITY, 2" METERED VALVE, BY-PASS VALVES, SYSTEM CONTROLLER WITH POWER CORD, SINGLE BRINE TANK, 54 GPM CONTINUOUS FLOW AND 68 GPM PEAK FLOW, (120/60/1) RUN 1" DRAIN LINE TO FLOOR SINK. REFER TO DETAIL GP3.1 FOR TYPICAL PIPING CONNECTIONS.	---	2"	1"	---

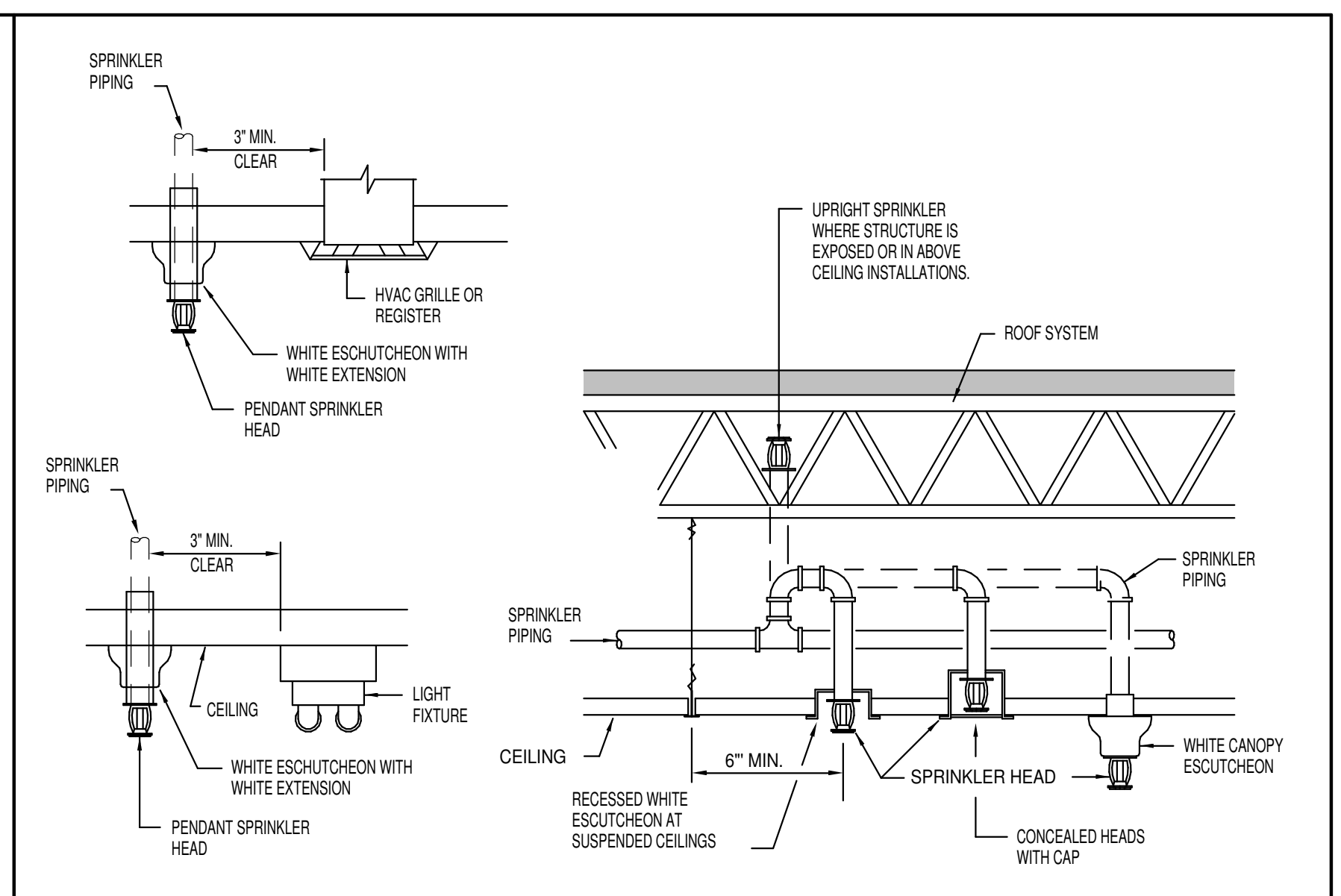
FIXTURE SCHEDULE					
SYM.	DESCRIPTION	HOT	COLD	WASTE	VENT
(SH-1)	PRE-FAB ADA SHOWER - LASCO MODEL 6030CFS COMPLETE WITH FOLDING BENCH, GRAB BARS, PRESSURE BALANCING MIXING VALVE, HAND HELD SHOWER HEAD WITH FLEXIBLE HOSE, SOAP DISH, CURTAIN ROD AND SHOWER CURTAIN, PERFORATED STRAINER, AND 2" DEEP SEAL P-TRAP.	1/2"	1/2"	2"	2"
(SP-1)	DUPLEX SEWAGE PUMP - 30" DIAMETER BY 36" DEEP FIBERGLASS BASIN COMPLETE WITH GAS TIGHT STEEL COVER, WALL MOUNTED ALARM PANEL, FLOAT SWITCH CONTROLS, AND (2) MYERS MODEL MSP5M2-10 SUBMERSIBLE GRINDER PUMPS WITH 1/2 HP MOTORS (208/60/1) WITH 10' POWER CORDS, 2" DISCHARGE LINES, 100 GPM FLOW AT 15' HEAD. REFER TO DETAIL N/P3.1 FOR TYPICAL INSTALLATION.	---	3/4"	---	---
(TD-1)	58"-0" TRENCH DRAIN - MIFAB T1400 "PROFORMER" TRENCH DRAIN COMPLETE WITH PRE-SLOPED SECTIONS AS REQUIRED FOR ENTIRE LENGTH. TO BE COMPLETE WITH END CAPS AND 4" END OUTLET CONNECTION AND CLASS 'C' HEAVY DUTY DUCTILE IRON GRATE. REFER TO DETAIL MP3.1 FOR TYPICAL INSTALLATION.	1/2"	1/2"	1-1/2"	1-1/2"
(TP-1)	SINGLE TRAP PRIMER - ZURN Z-1020XLI IN-LINE TRAP PRIMER. MOUNT RECESSED IN WALL BELOW SINK WHERE SHOWN ON PLANS AND PROVIDE LOCKING COVER. RUN 1/2" COLD WATER LINE TO EACH TRAP AS SHOWN ON FLOOR PLANS. REFER TO DETAIL K/P3.1 FOR TYPICAL INSTALLATION.	---	1/2"	---	---
(U-1)	URINAL - KOHLER MODEL 4984-T "FRESHMAN" WITH SLOAN ROYAL 111-1.6 FLUSH VALVE WITH SLOAN EBV-89-M SIDE MOUNT OPERATOR, AND WALL CARRIER. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.	---	3/4"	---	---

FIXTURE SCHEDULE					
SYM.	DESCRIPTION	HOT	COLD	WASTE	VENT
(DF-1)	DRINKING FOUNTAIN - ELKAY MODEL EZ08WSLK WITH EZH2O BOTTLE FILLER STATION COMPLETE WITH HANDS FREE FILL VALVE, 1/2" STOP, 1-1/2" P-TRAP, AND FLEX-GUARD SAFETY BUBBLER. (120/60/1)	---	1/2" (HARD)	1-1/2"	1-1/2"
(DF-2)	BILEVEL DRINKING FOUNTAIN - ELKAY MODEL LZ2STL8WSLP AND EZH2O BOTTLE FILLER STATION COMPLETE WITH HANDS FREE FILL VALVE, 1/2" STOP, 1-1/2" P-TRAP, AND FLEX-GUARD SAFETY BUBBLER. (120/60/1)	---	1/2" (HARD)	1-1/2"	1-1/2"
(FD-1)	2" FLOOR DRAIN - ZURN Z-415-N WITH 5" Dia. NICKEL-BRONZE STRAINER AND 2" DEEP SEAL P-TRAP. RUN 1/2" COLD WATER LINE TO TRAP PRIMER. REFER TO DETAIL MP301 FOR TYPICAL INSTALLATION.	---	1/2"	2"	2"
(FS-1)	4" FLOOR SINK - ZURN Z-1900-2 WITH HALF GRATE, WHITE ENAMEL FINISH, DOME STRAINER AND 4" P-TRAP.	---	---	4"	2"
(GT-1)	RECESSED OIL AND GREASE INTERCEPTOR - MIFAB MODEL LI-50 WITH 50 GPM FLOW AND 100 POUND GREASE CAPACITY. PROVIDE EXTENSION 'C' AS REQUIRED TO MOUNT FLUSH WITH FLOOR. CONNECT TO 4" WASTE LINE FROM TRENCH DRAIN. SEE DETAIL DP3.1 FOR TYPICAL INSTALLATION.	---	---	4"	2"
(HB-1)	EXTERIOR HOSE BIBB - ZURN Z-1310 "ECOLOTRON" WITH VACUUM BREAKER AND REMOVABLE CHROME TEE HANDLE. LENGTH TO SUIT WALL THICKNESS.	---	3/4" (HARD)	---	---
(HB-2)	INTERIOR HOSE BIBB - PRIER MODEL C25NP.50 WITH ANTI-SIPHON ANGLED SILL FAUCET WITH HOSE THREADED VACUUM BREAKER AND METAL HANDLE. REFER TO DETAIL B/P3.1 FOR TYPICAL INSTALLATION.	---	1/2"	---	---
(HB-3)	WALL MOUNTED HOSE REEL - T&S 5HR-242-12 HOSE REEL WITH 50'-0" x1/2" Dia. HOSE AND FRONT TRIGGER WATER GUN WITH 1/2" SUPPLY LINE AND SHUT-OFF VALVE. PROVIDE HOT AND COLD WATER LINES WITH SHUT-OFF VALVES.	1/2"	1/2"	---	---
(ICE)	ICE MAKER SHUT-OFF VALVE - GUY GREY MODEL BM875 WITH 1/2" COLD WATER CONNECTION AND SHUT-OFF VALVE. MOUNT RECESSED IN WALL NEAR FLOOR. RUN 3/8" LINE THRU WALL TO ADJACENT SINK WHERE INDICATED ON PLANS.	---	1/2" (HARD)	---	---
(JS-1)	FLOOR MOUNTED SERVICE SINK - KOHLER K-6710 "WHITBY" WITH K-8840 WIRE RIM GUARD, K-9142 PERFORATED STRAINER AND 2" DEEP SEAL P-TRAP. MOUNT T&S B-0574-BSTP FAUCET ON WALL COMPLETE WITH VACUUM BREAKER, AND PAIL HOOK. PROVIDE 5'-0" RUBBER HOSE AND WALL CLIP.	1/2"	1/2"	2"	2"
(L-1)	COUNTER MOUNTED LAVATORY - KOHLER MODEL K-2905-4 "FARMINGTON" WITH K-7715 OPEN GRID STRAINER, K-15992-R LEVER HANDLE FAUCET, 1/2" STOPS, 1-1/2" P-TRAP. PROVIDE INSULATING JACKET ON WASTE AND HOT WATER LINES.	1/2"	1/2"	1-1/2"	1-1/2"
(L-2)	WALL MOUNTED LAVATORY - KOHLER K-2032 "GREENWICH" WITH K-7715 GRID STRAINER, K-15992-R LEVER HANDLE FAUCET, WALL CARRIER, 1-1/2" P-TRAP AND 1/2" STOPS. PROVIDE INSULATING JACKET ON WASTE AND HOT WATER LINE.	1/2"	1/2"	1-1/2"	1-1/2"
(RP-1)	DOMESTIC REGR. PUMP - B&G SERIES LR-208P "LITTLE RED" WITH 4 GPM FLOW AT 8' HEAD AND 3/4" LINE CONNECTIONS. MOUNT NEAR WATER HEATER. REFER TO DETAIL HP3.1 FOR TYPICAL PIPE CONNECTIONS.	3/4"	---	---	---
(S-1)	SINGLE COMPARTMENT SINK - ELKAY MODEL LR-1918 STAINLESS STEEL SINK WITH MOEN 7200 SINGLE LEVER HANDLE, LK-99 HEAVY DUTY STRAINER, AND 1/2" STOPS.	1/2"	1/2"	1-1/2"	1-1/2"
(S-2)	DOUBLE COMPARTMENT SINK - ELKAY MODEL LR-2519 STAINLESS STEEL SINK WITH MOEN 7200 SINGLE LEVER HANDLE, LK-99 HEAVY DUTY STRAINER, IN-SINK ERATOR "BADGER 5" GARBAGE DISPOSAL WITH 1/2" HP MOTOR, POWER CORD AND RUBBER STOPPER, AND 1/2" HOT AND COLD WATER LINES WITH STOPS.	1/2"	1/2"	1-1/2"	1-1/2"
(S-3)	UTILITY SINK - FIAT F1 WALL MOUNTED UTILITY SIN WITH T&S B-0665-BSTRM WALL MOUNTED FAUCET COMPLETE WITH BUCKET PAIL, WALL BRACKET AND VACUUM BREAKER. AND ELKAY LK99 HEAVY-DUTY STRAINER. SECURE TO WALL WITH WALL CARRIER. ROUGH-IN AND CONNECT 1/2" HOT AND COLD WATER LINE WITH SHUT-OFF VALVES AND 2" WASTE LINE WITH P-TRAP.	1/2"	1/2"	2"	2"

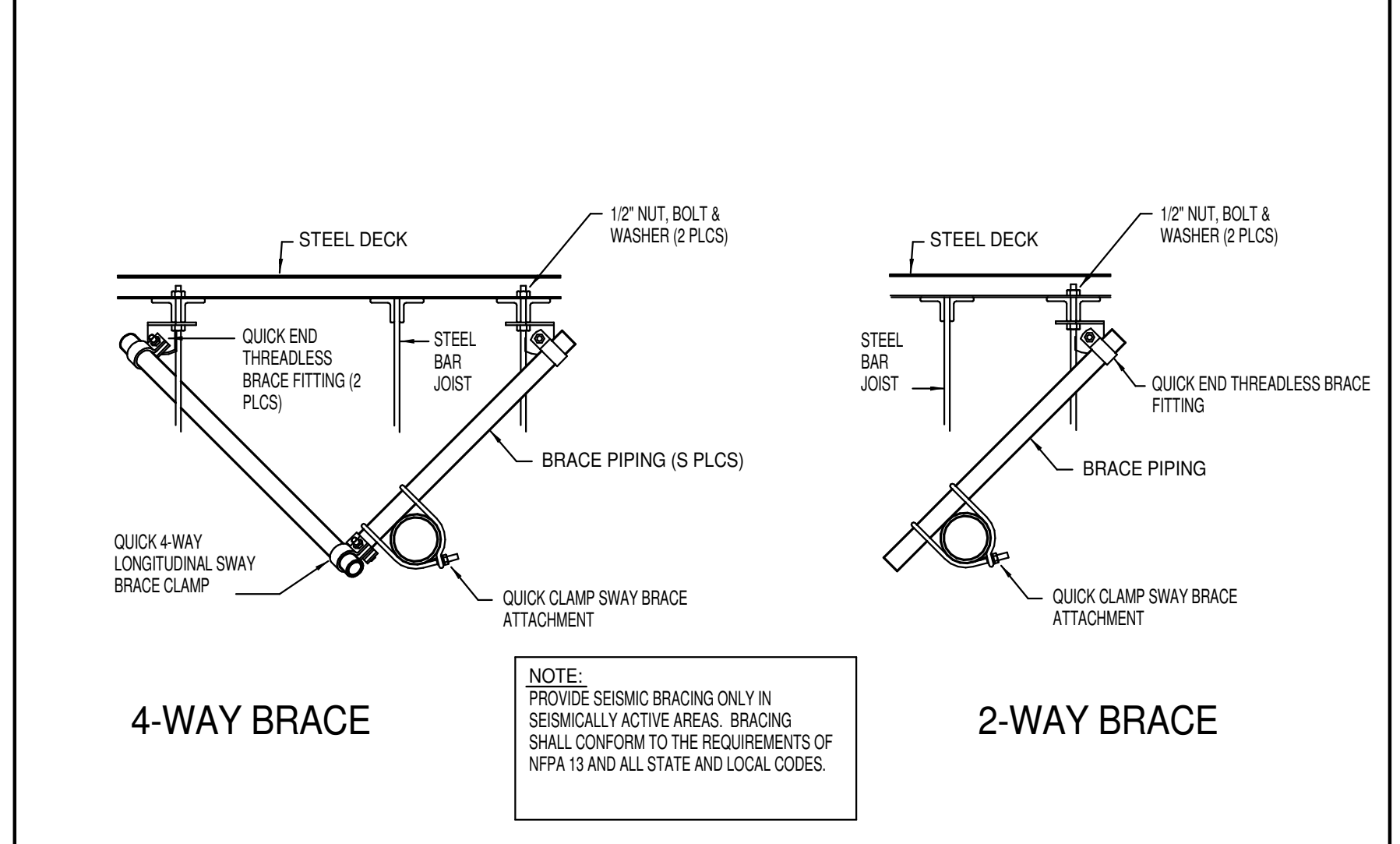


NOTE:
FIRE RISER TO BE DEFERRED SUBMITTAL FROM LICENSED LIFE SAFETY CONTRACTOR.

- WET RISER DETAIL NOTES
- WATER SUPPLY FROM CITY WATER MAIN. USE CLASS S3 DUCTILE IRON WHEN CROSSING UNDER BLDG FOUNDATION.
 - USE FLEXIBLE GROOVED PIPE COUPLING ONLY IF SEISMIC BRACING IS REQUIRED. SEE NOTE #12.
 - GROOVED BUTTERFLY VALVE WITH INTEGRAL SUPERVISORY SWITCH.
 - DOUBLE CHECK BACKFLOW PREVENTER WITH RELATED TRIM AND GAUGES.
 - 3-1/2" DIAMETER WATER GAUGE WITH 1/4" TEST AND ISOLATION VALVE.
 - VANE TYPE WATER FLOW SWITCH.
 - SUPPLY TO WET PIPE FIRE SPRINKLER SYSTEM.
 - SWING CHECK VALVE.
 - RISER MANIFOLD - INCLUDES PRESURE GAUGE, FLOW SWITCH, PRESSURE RELIEF VALVE, AND TEST AND MAIN DRAIN DEVICE.
 - INSPECTOR'S TEST & MAIN DRAIN DEVICE "IT" - PIPE TO OUTSIDE.
 - PRESSURE RELIEF VALVE SHALL BE REQUIRED SET AT 175 PSI-PIPED TO DISCHARGE OUTSIDE.
 - SEISMIC BRACING REQUIRED IN SEISMIC DESIGN CATEGORY C, D, E, F.
 - 1/2" AUTOMATIC BALL DRIP VALVE.
 - PIPE TO DRAIN OUTSIDE.
 - WEATHERPROOF ELECTRIC BELL OR HORN AND STROBE (OUTSIDE).
 - OUT TO FIRE DEPARTMENT CONNECTION WITH GALVANIZED SCH 40 PIPING - PROVIDE BALL DRIP WHEN TRAPPING PIPE. SIZE CONNECTION AS REQUIRED. NOTE: PIPE FDC TO REMOTE LOCATION WHEN REQUIRED BY FIRE MARSHAL.
 - GALVANIZED FLANGE AND SPOOL PIECE
 - CLASS S3 D.I. FLANGED SPIGOT
 - 3/4" A.T.R.
 - 3/4" BENT EYE BOLT
 - MECHANICAL JOINT 90° ELL
 - CONCRETE THRUST BLOCK WITH 5 SQ. FEET BEARING AREA
 - UNDISTURBED EARTH
 - LOW TEMPERATURE SENSOR - MOUNTED ON WALL - THIS SWITCH IS PROVIDED UNDER DIVISION 28 OF THE SPECIFICATIONS.
 - SPARE HEAD CABINET WITH SPARE SPRINKLER HEADS AND WRENCHES.
 - LAMINATED SYSTEM MAP WITH SYSTEM START-UP AND SHUT-DOWN INSTRUCTIONS.



B | SPRINKLER HEAD COORDINATION DETAILS NO SCALE



C | SEISMIC BRACING DETAILS NO SCALE

A | VERTICAL FIRE RISER DETAIL NO SCALE

08/13/2021

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