

PLAN NOTES:

1. INSTALL RETURN AIR GRILLE AS SPECIFIED AT 6' ABOVE FLOOR. CONNECT TO 12x6-12 UNLINED DUCT AND RISE UP IN WALL CAVITY TO ABOVE CEILING. REFER TO DETAIL BM3.1 FOR TYPICAL INSTALLATION.
2. RISE DUCTWORK UP IN UPPER LEVEL STORAGE ROOM ABOVE. KEEP ALL DUCTS AS TIGHT TO WALLS (OR OTHER DUCTS) AS POSSIBLE. COORDINATE DUCT RISES WITH UPPER LEVEL FLOOR STRUCTURE. ARRANGE DUCTWORK SO THAT HORIZONTAL DUCT RUNS CAN BE MAINTAINED IN MAIN LEVEL CEILING SPACE. REFER TO SHEET M1.2 FOR DUCTWORK ON UPPER LEVEL.
3. MOUNT THERMOSTAT ON WALL AND CONNECT TO CORRESPONDING ROOFTOP UNIT AS INDICATED.
4. PROVIDE AND INSTALL SURFACE MOUNTED ELECTRICAL HEATER AS SPECIFIED. COORDINATE ACTUAL LOCATION WITH DOMESTIC WATER PRV STATION AND PIPING AND WITH FIRE RISER AND ALARM VALVE. (SEE PLUMBING DRAWINGS.) HEATER MUST NOT BLOCK ACCESS TO ANY VALVES, ALARM PANELS, OR PIPING.
5. PROVIDE AND INSTALL CEILING MOUNTED EXHAUST FAN AS SPECIFIED IN ELEVATOR EQUIPMENT ROOM. CONTOL FAN WITH COOLING THERMOSTAT. RISE 10x4 EXHAUST DUCT UP IN WALL ON MAIN LEVEL. RISE DUCT TO 12'-0" ABOVE MAINLEVEL FLOOR AND EXTEND TO WALL CAP AS SHOWN.

09/20/2021 1 PLEB AND MECH CHANGES

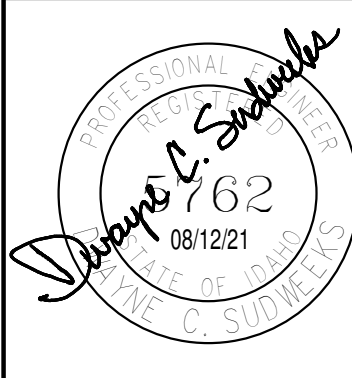
A NEW FACILITY FOR:  
**T.F. AMALGAMATED SUGAR-OFFICE**  
2320 ORCHARD DR. E., TWIN FALLS, ID 83301  
**MAIN LEVEL MECHANICAL FLOOR PLAN**

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

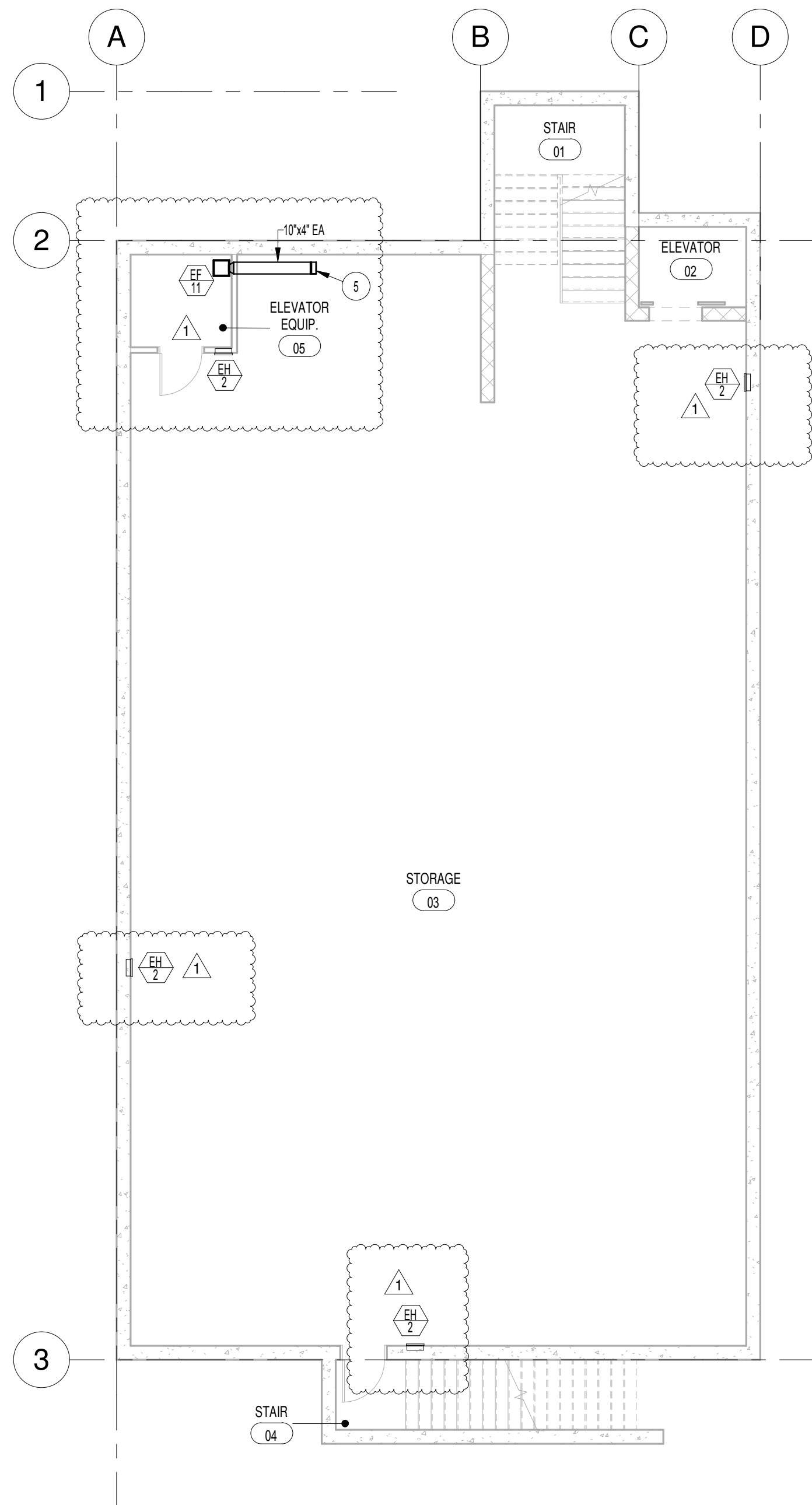
DATE: 6/30/2021

BE DCS  
Drawn Checked

**M1.1**

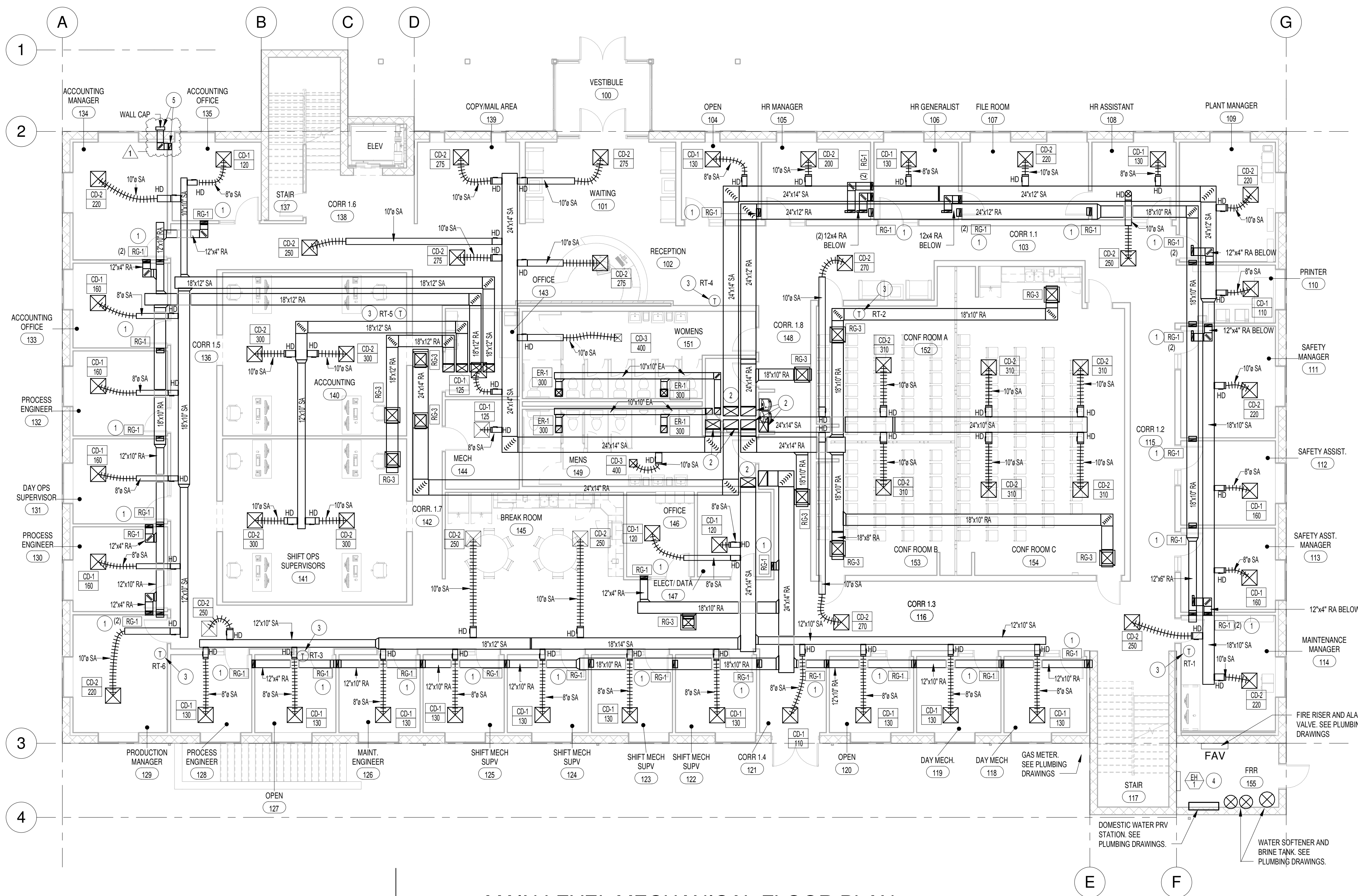


**Engineered Systems Associates**  
1355 EAST CENTER  
POCATELLO, IDAHO 83201  
PHONE: (208) 233-0501  
FAX: (208) 233-0520  
EMAIL: esa@engsystems.com  
ESA JOB NUMBER: 21034



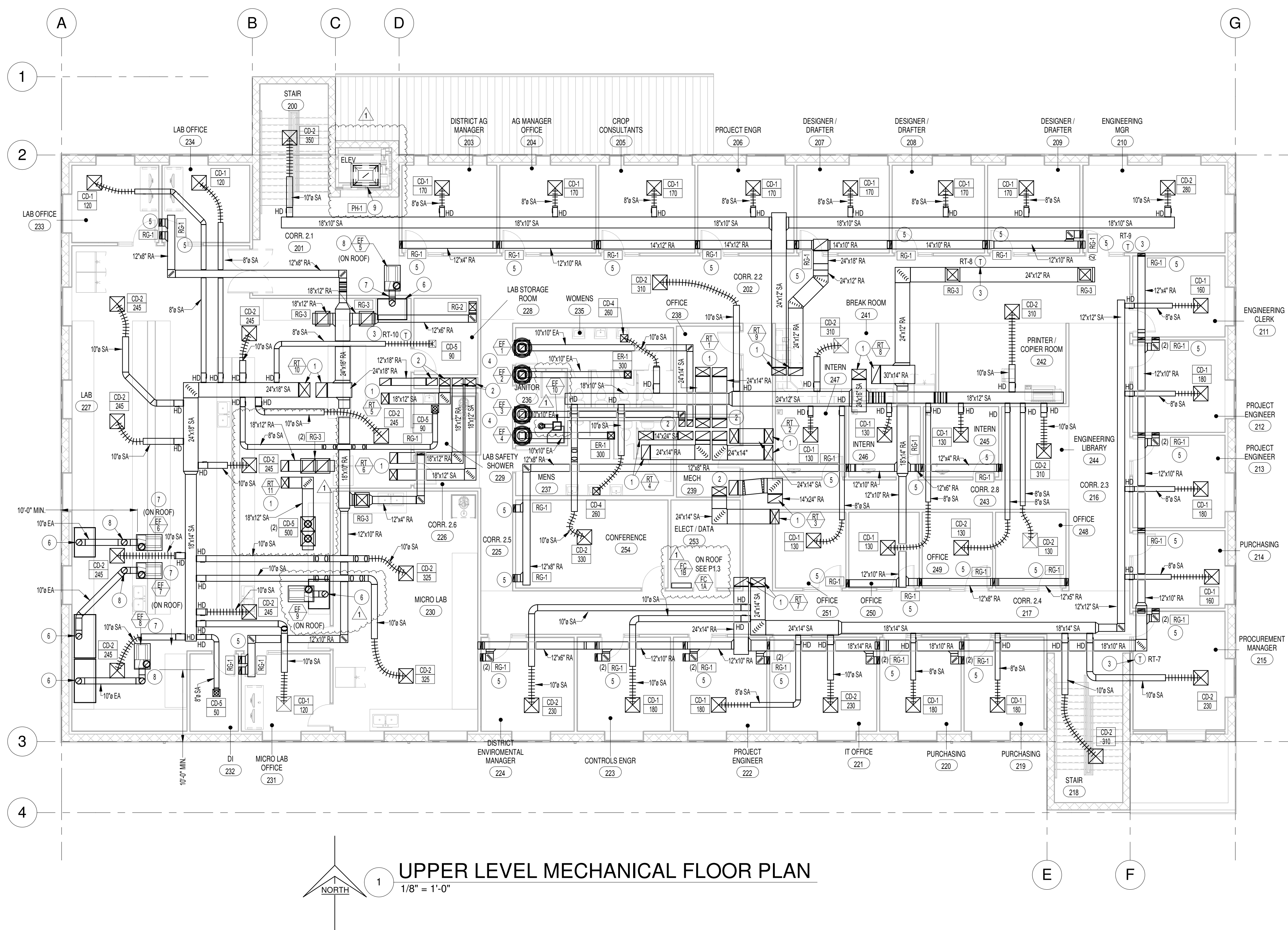
MECHANICAL BASEMENT PLAN

1/8" = 1'-0"



MAIN LEVEL MECHANICAL FLOOR PLAN

1/8" = 1'-0"



- PLAN NOTES:**

- 1 RISE SUPPLY AND RETURN DUCTS UP THRU ROOF AND CONNECT TO ROOF MOUNTED UNIT. COORDINATE ROOF TOP UNIT AND DUCT WITH ROOF STRUCTURE. PROVIDE SMOKE DETECTOR IN SUPPLY AIR DUCT AND TIE INTO BUILDING FIRE ALARM SYSTEM. (SEE ELECTRICAL DRAWINGS). REFER TO ROOF PLAN ON SHEET P1.3 FOR LOCATIONS OF ROOF EQUIPMENT.
- 2 ROOF DUCTWORK DOWN IN STORAGE ROOM AS SHOWN. KEEP ALL DUCTS AS TIGHT TO WALLS (OR OTHER DUCTS) AS POSSIBLE COORDINATE DUCT DROPS WITH UPPER LEVEL FLOOR STRUCTURE. ARRANGE DUCTWORK SO THAT HORIZONTAL DUCT RUNS CAN BE MAINTAINED IN MAIN LEVEL CEILING SPACE. REFER TO SHEET M1.1 FOR DUCTWORK ON MAIN LEVEL.
- 3 MOUNT THERMOSTAT ON WALL AND CONNECT TO CORRESPONDING ROOF TOP UNIT AS INDICATED.
- 4 PROVIDE AND INSTALL ROOF MOUNTED EXHAUST FAN AS SPECIFIED. MOUNT ON ROOF CURB AND DUCTWORK DOWN THRU ROOF. RUN DUCTWORK IN CEILING SPACE AS SHOWN. REFER TO DETAIL CM.1 FOR TYPICAL INSTALLATION.
- 5 INSTALL RETURN AIR GRILLE AS SPECIFIED AT 8" ABOVE FLOOR. CONNECT TO 12X12 (2) UNLINED DUCT AND RISE UP IN WALL CAVITY TO ABOVE CEILING. REFER TO DETAIL CM.2 FOR TYPICAL INSTALLATION.
- 6 HOOD PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. ROUGH IN AND CONNECT TO 6" ROUND DUCT TO HOOD. PROVIDE DUCT TRANSITION AND FLEXIBLE CONNECTION AS REQUIRED FOR CONNECTION TO HOOD.
- 7 RISE 1" ROUND EXHAUST DUCT UP THRU ROOF AND CONNECT TO EXHAUST FAN. SEAL ROOF PENETRATION WATER TIGHT.
- 8 PROVIDE AND INSTALL ROOF MOUNTED UTILITY TYPE EXHAUST FAN AS SPECIFIED. MOUNT ON ROOF CURB PROVIDE 1" ROUND DUCT FROM FAN DISCHARGE UP TO 48" MINIMUM ABOVE SUPPORTS ON DUCTWORK. REFER TO DETAIL AM1.2 FOR TYPICAL INSTALLATION.
- 9 FURNISH AND INSTALL PENTHOUSE VENT ON TOP OF ELEVATOR SHAFT AS SPECIFIED. MOUNT ON ROOF CURB AND PROVIDE NOTICED DRAIN IN VENT AND INTERLOCK TO OPEN WHEN ELEVATOR IS IN USE. REFER TO DETAIL CM1.2 FOR TYPICAL INSTALLATION.

- 2 DROP DUCTWORK DOWN IN STORAGE ROOM AS SHOWN. KEEP ALL DUCTS AS TIGHT TO WALLS (OR OTHER DUCTS) AS POSSIBLE COORDINATE DUCT DROPS WITH UPPER LEVEL FLOOR STRUCTURE. ARRANGE DUCTWORK SO THAT HORIZONTAL DUCT RUNS CAN BE MAINTAINED IN MAIN LEVEL CEILING SPACE. REFER TO SHEET M1.1 FOR DUCTWORK ON MAIN LEVEL.

- 3 MOUNT THERMOSTAT ON WALL AND CONNECT TO CORRESPONDING ROOF TOP UNIT AS INDICATED.

- 4 PROVIDE AND INSTALL ROOF MOUNTED EXHAUST FAN AS SPECIFIED. MOUNT ON ROOF CURB AND DROP DUCTWORK DOWN THRU ROOF. RUN DUCTWORK IN CEILING SPACE AS SHOWN. REFER TO DETAIL C/M3.1 FOR TYPICAL INSTALLATION.

5. INSTALL RETURN AIR GRILLE AS SPECIFIED AT 6" ABOVE FLOOR. CONNECT TO 12X3 1/2 UNLINED DUCT AND RISE UP IN WALL CAVITY TO ABOVE CEILING. REFER TO DETAIL B/M3.1 FOR TYPICAL INSTALLATION.

- 6 HOOD PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. ROUGH IN AND CONNECT 10" ROUND DUCT TO HOOD. PROVIDE DUCT TRANSITION AND FLEXIBLE CONNECTION AS REQUIRED FOR CONNECTION TO HOOD.

- 7 RISE 10" ROUND EXHAUST DUCT UP THRU ROOF AND CONNECT TO EXHAUST FAN. SEAL ROOF PENETRATION WATER TIGHT.

- 8 PROVIDE AND INSTALL ROOF MOUNTED UTILITY TYPE EXHAUST FAN AS SPECIFIED. MOUNT ON ROOF CURB. PROVIDE 10" ROUND DUCT FROM FAN DISCHARGE UP TO 48" MINIMUM ABOVE SUPPORTS ON DUCTWORK. REFER TO DETAIL AM1.2 FOR TYPICAL INSTALLATION.

- 9 FURNISH AND INSTALL PENTHOUSE VENT ON TOP OF ELEVATOR SHAFT AS SPECIFIED. MOUNT ON ROOF CURB AND PROVIDE MOTORIZED DAMPER IN VENT AND INTERLOCK TO OPEN WHEN ELEVATOR IS IN USE. REFER TO DETAIL C/M1.2 FOR TYPICAL INSTALLATION.

**A NEW FACILITY FOR:**

T.T.F. AMALGAMATED SUGAR-OFFICE

2320 ORCHARD DR. E., TWIN FALLS, ID 83301

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Laughlin Ricks Architecture  
—architecture/planning—

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architecture/planning

shone Street North \* Twin Falls, Idaho 83301  
 (208) 736-8050 Fax: (208) 733-0950

208) 736-8050 Fax: (208) 733-0950

DATE: 6/30/2021

BE	DCS
Demarcation	Checked

Drawn	Checked

## M1.2



**Engineers  
Systems  
Associates**

1355 EAST CENTER

PHONE: (208) 233-05

FAX: (208) 233-05

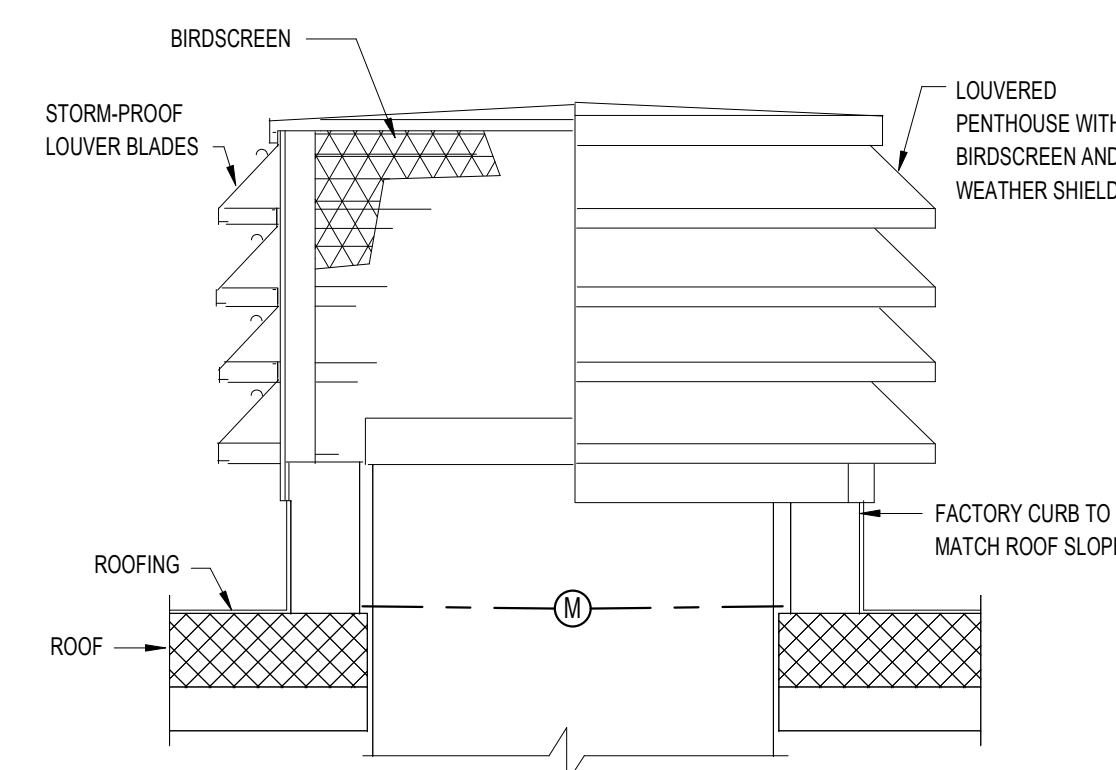
FSA JOB NUMBER: 21034

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*Dwight C. Sordahl*

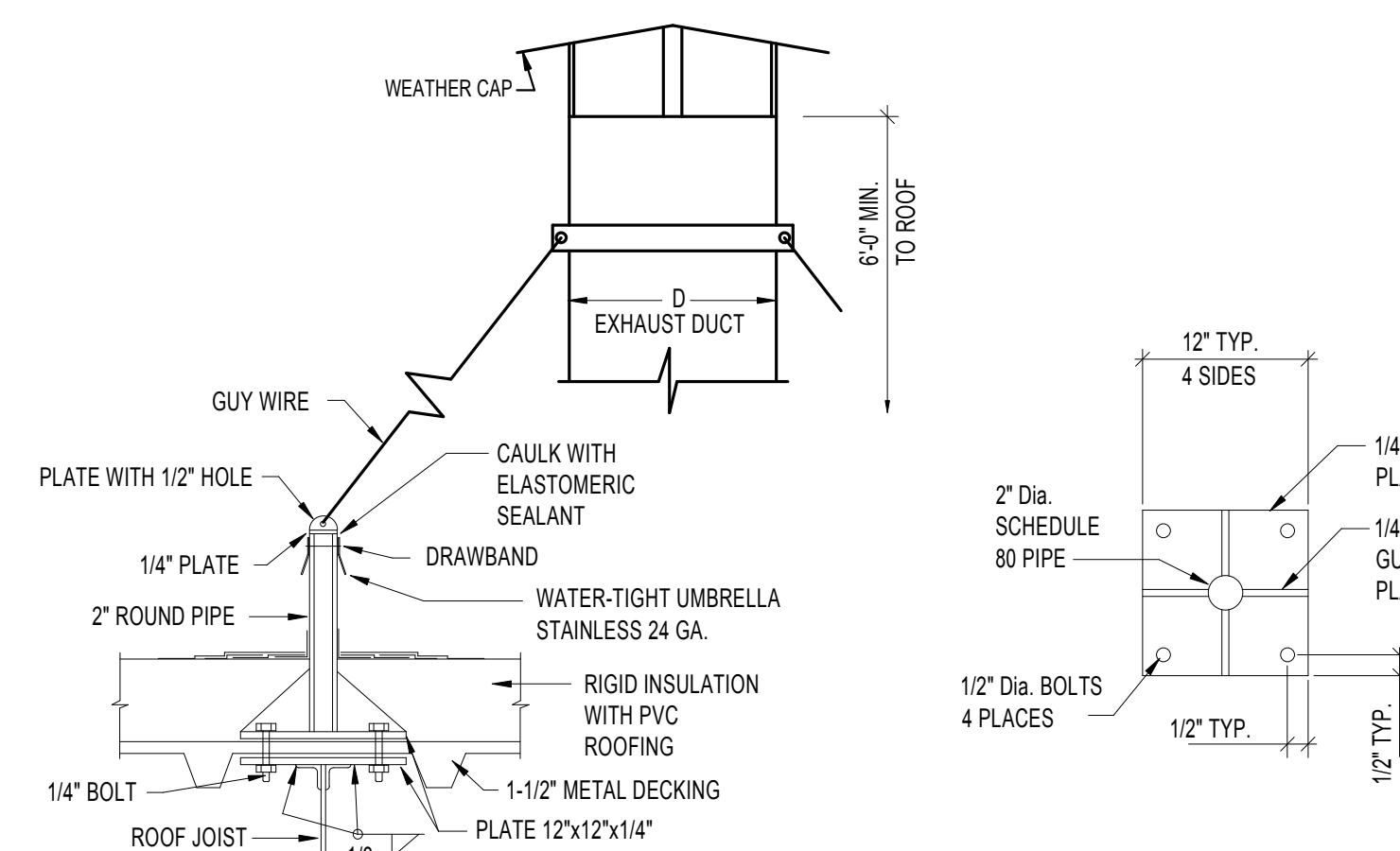
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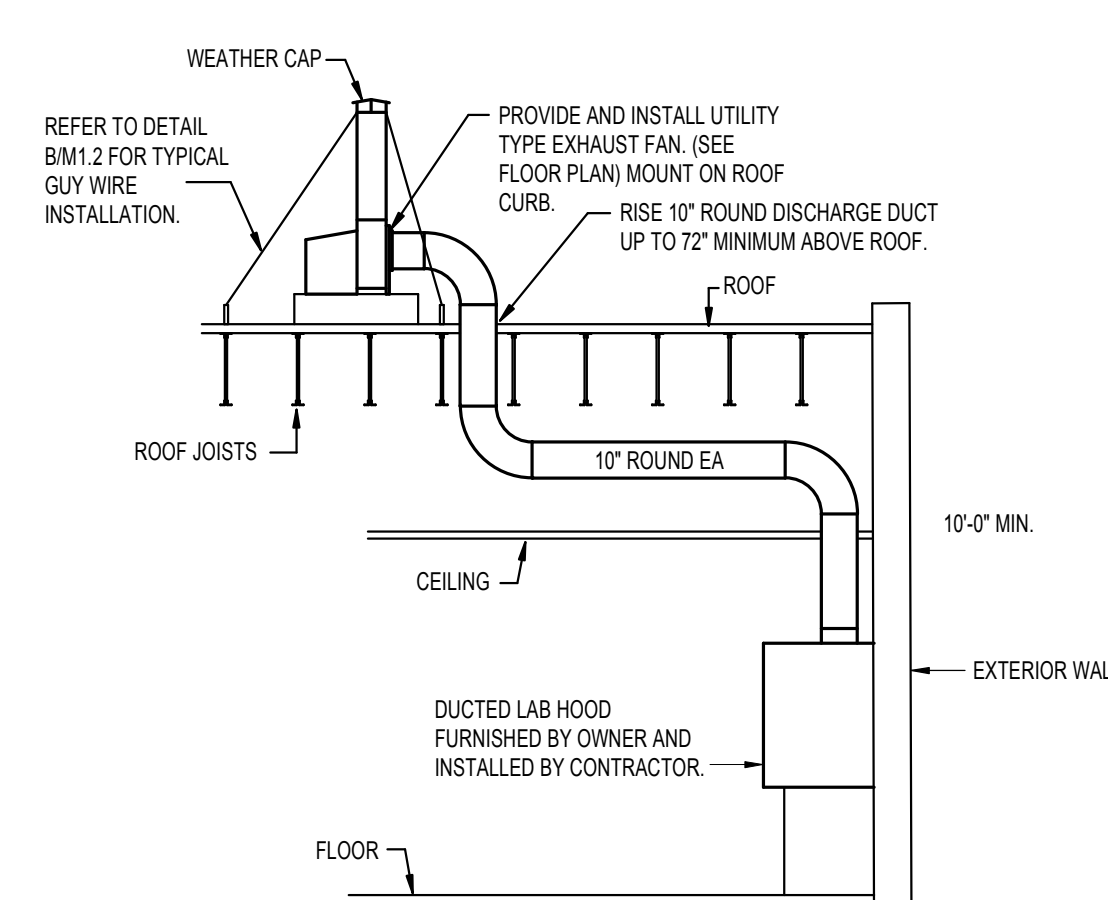
C	PENTHOUSE INSTALLATION DETAIL
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NO SCALE



B	TYPICAL GUY WIRE ATTACHMENT DETAIL
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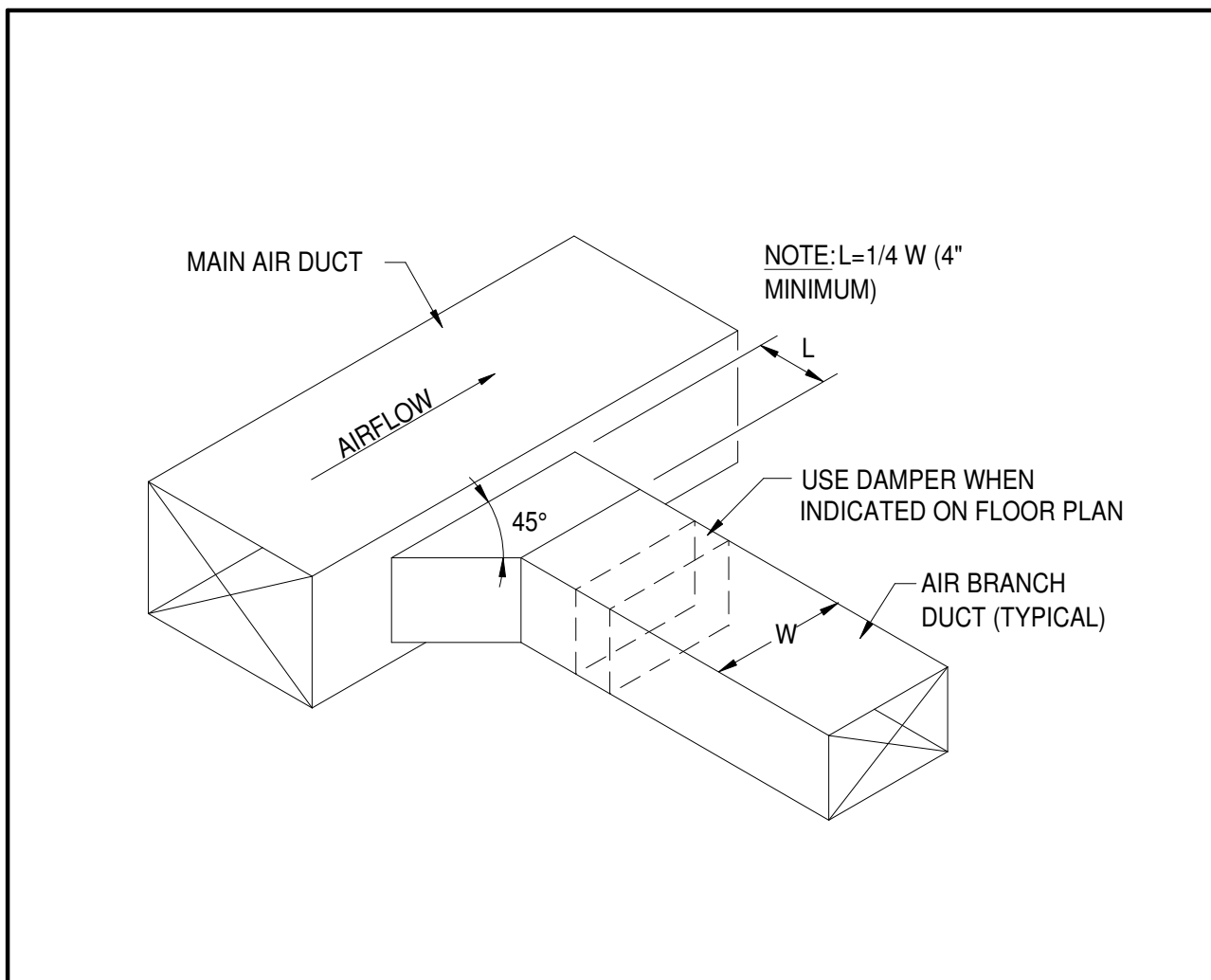
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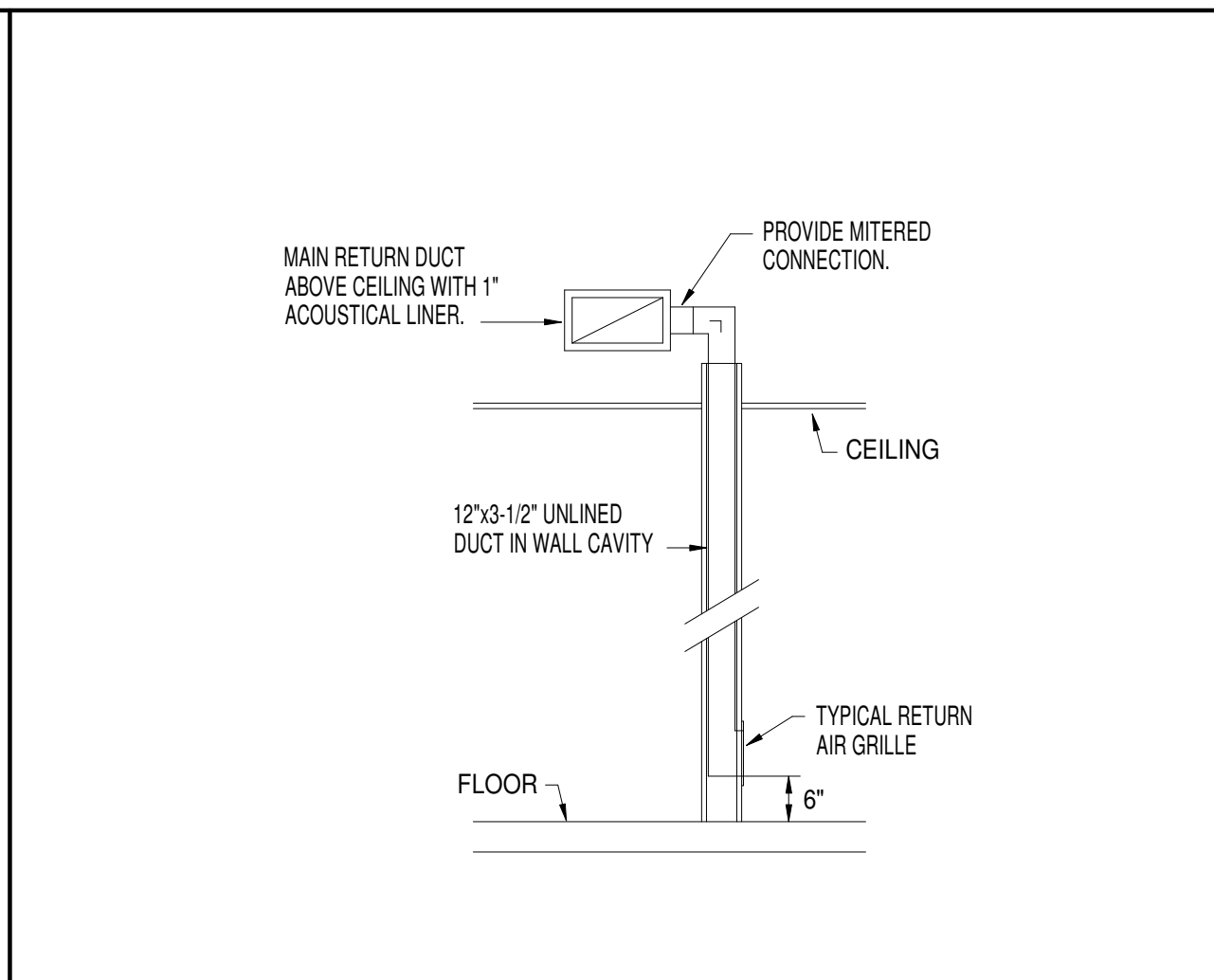
A	DUCTED HOOD EXHAUST FAN DETAIL
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NO SCALE

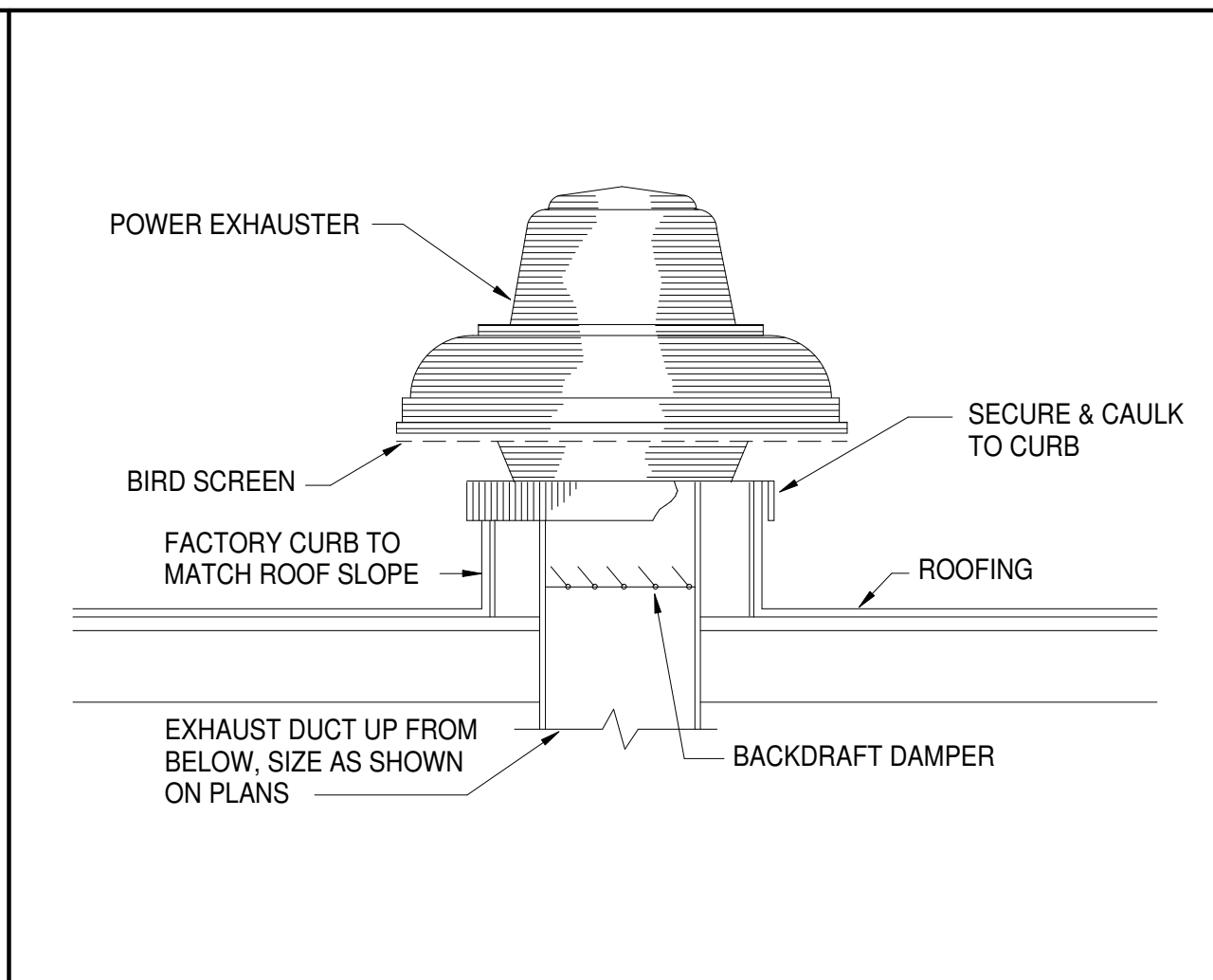




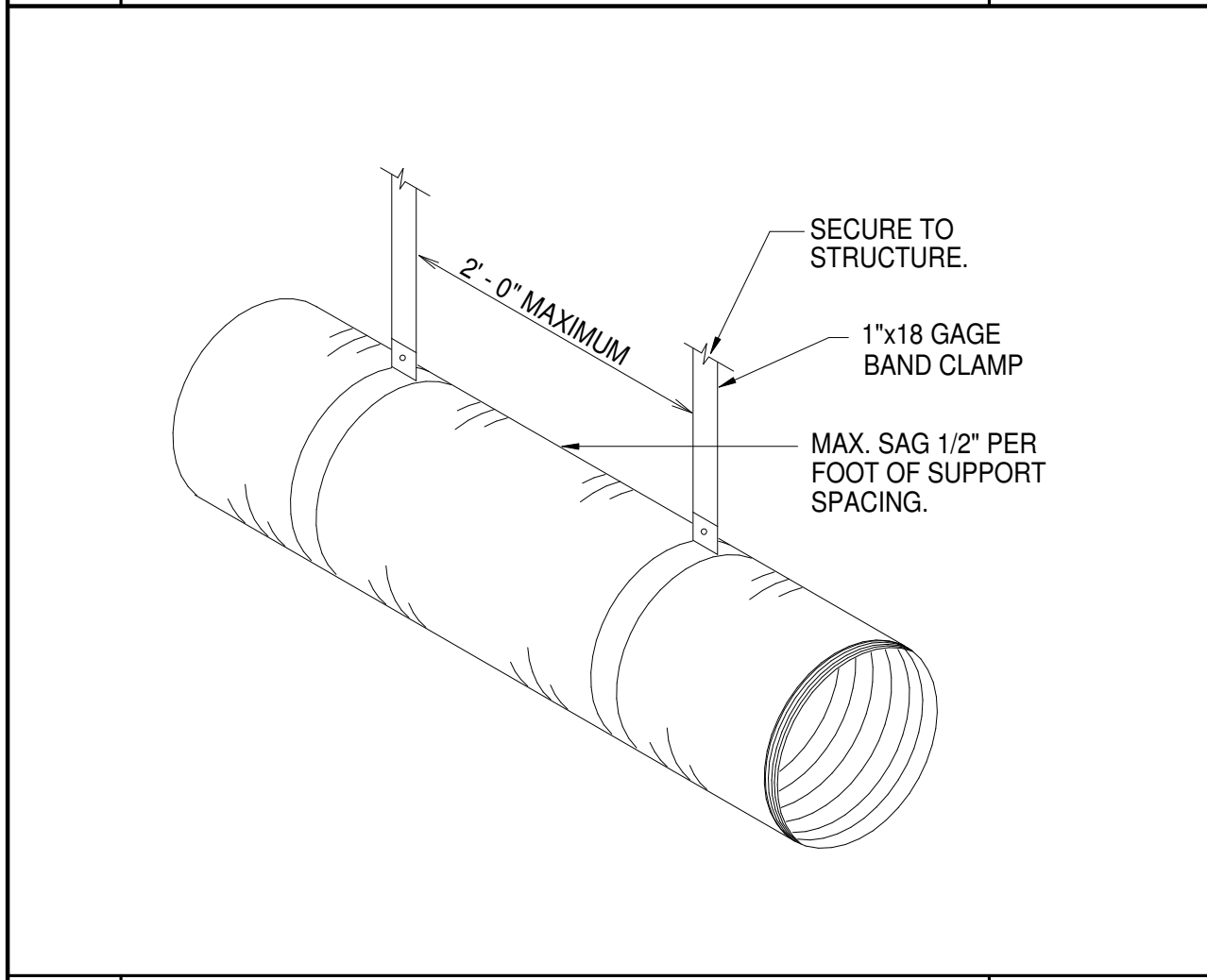
A | RECT. DUCT CONNECTION | NO SCALE



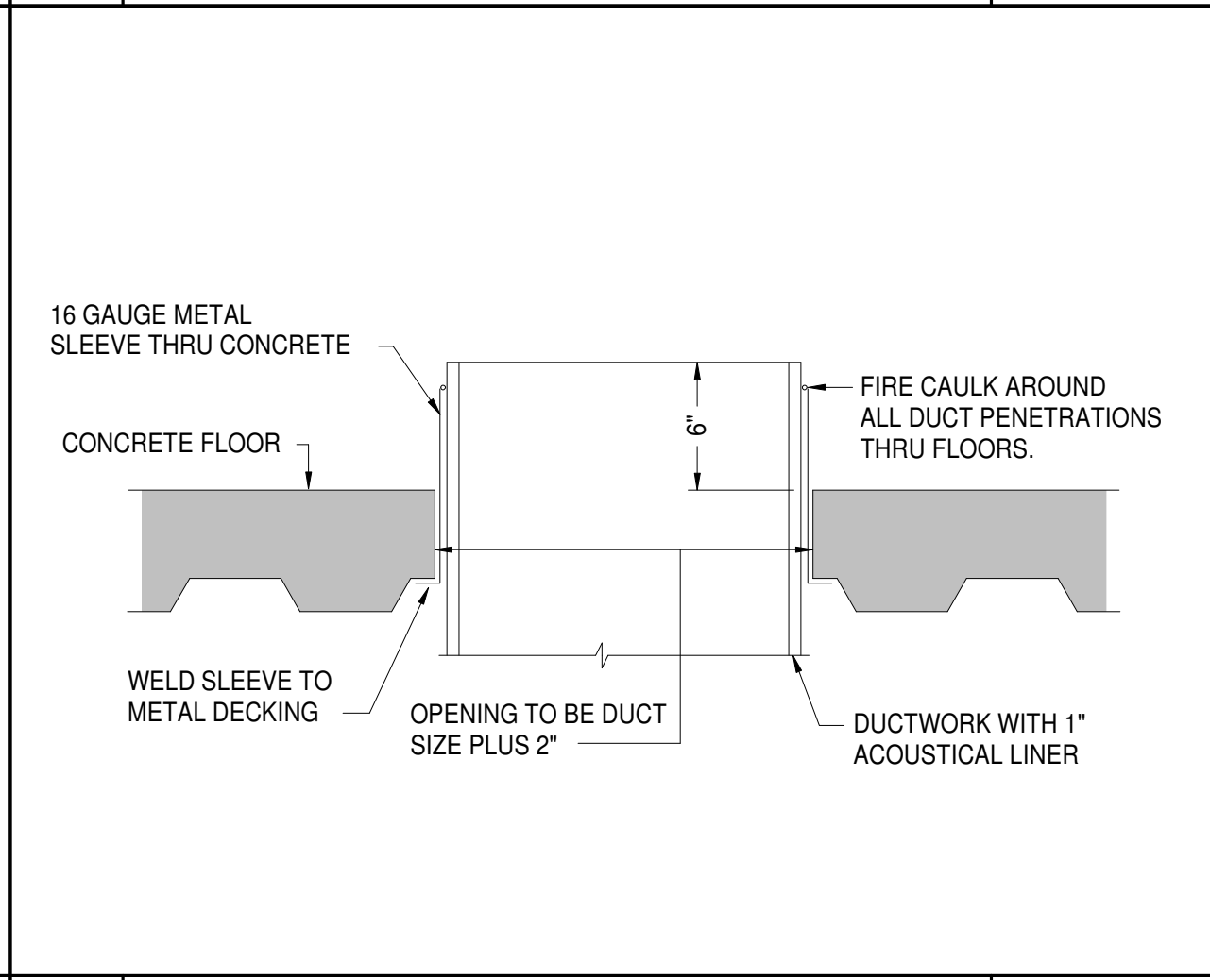
B | RETURN GRILLE DETAIL | NO SCALE



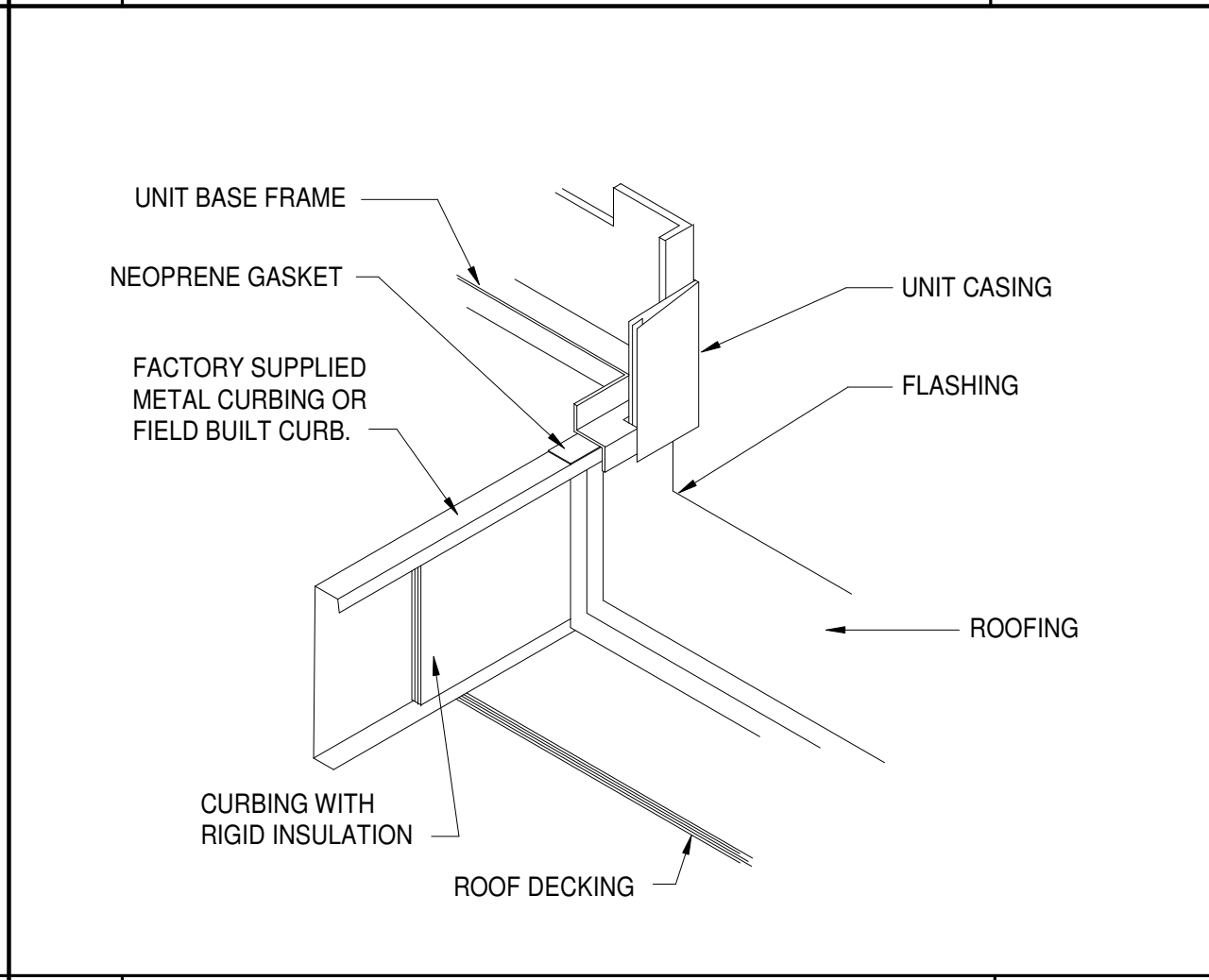
C | DOWN-FLOW EXHAUST FAN DETAIL | NO SCALE



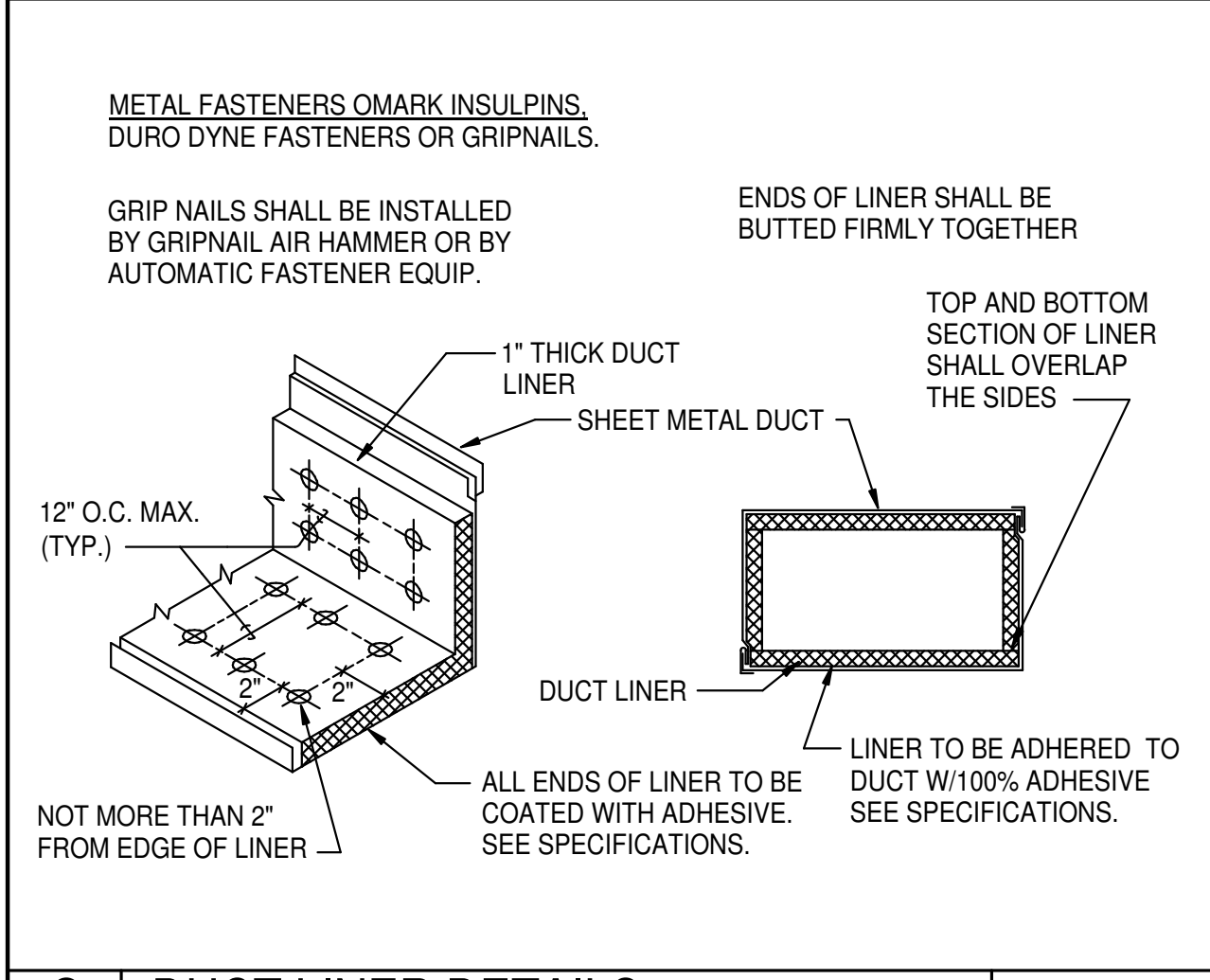
D | FLEXIBLE DUCT SUPPORT DETAIL | NO SCALE






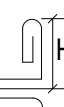
E | DUCT THRU FLOOR DETAIL | NO SCALE



F | ROOF TOP MOUNTING DETAIL | NO SCALE

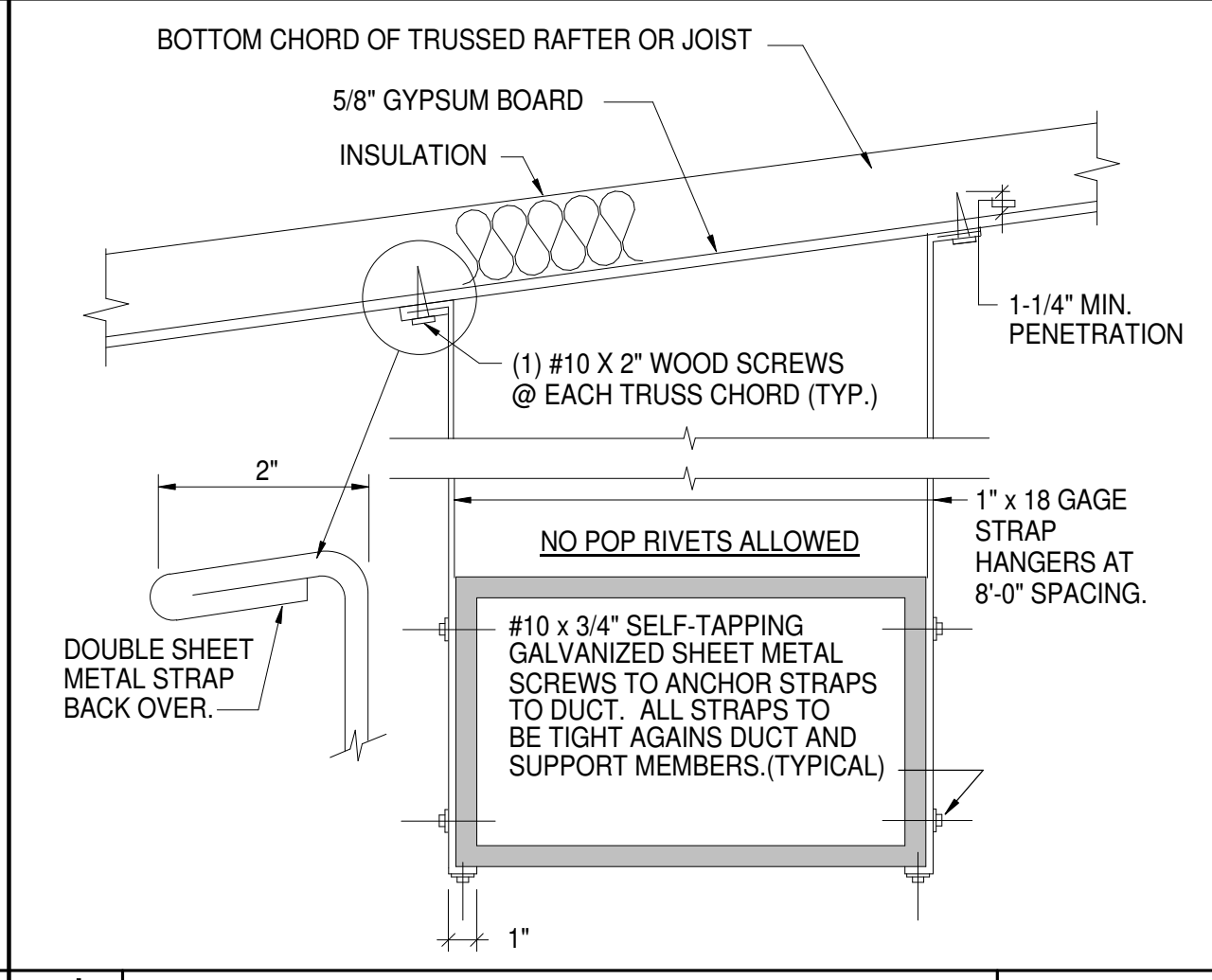


G | DUCT LINER DETAILS | NO SCALE

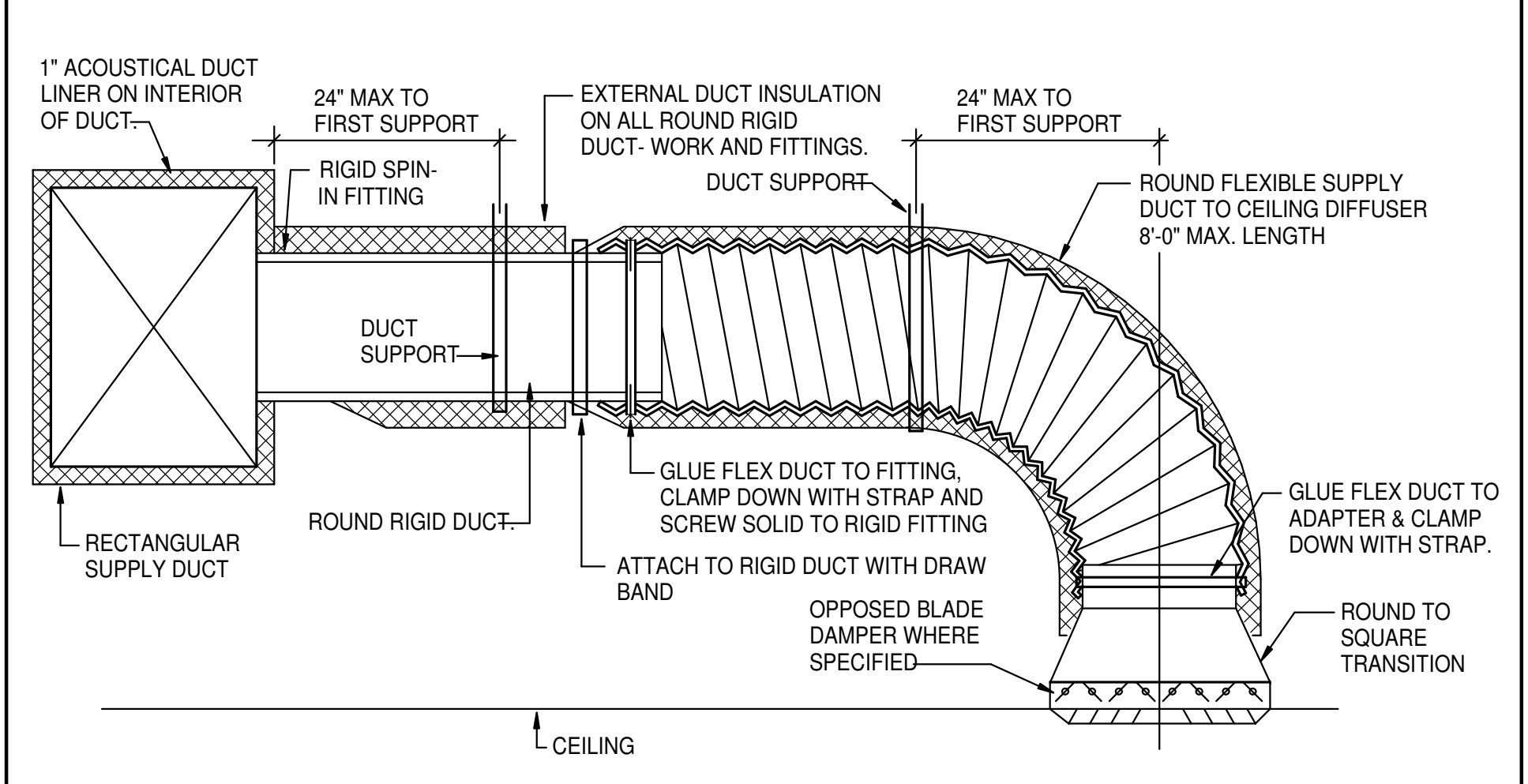
DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAUGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS &/OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1)				
			MIN. H. IN.	AT JOINTS			
				 DRIVE SLIP	 PLAIN S SLIP	 HEMMED S SLIP	 ALTERNATE BAR SLIP
RECOM- MENDED GAUGE	RECOM- MENDED GAUGE	RECOM- MENDED GAUGE	RECOM- MENDED 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.

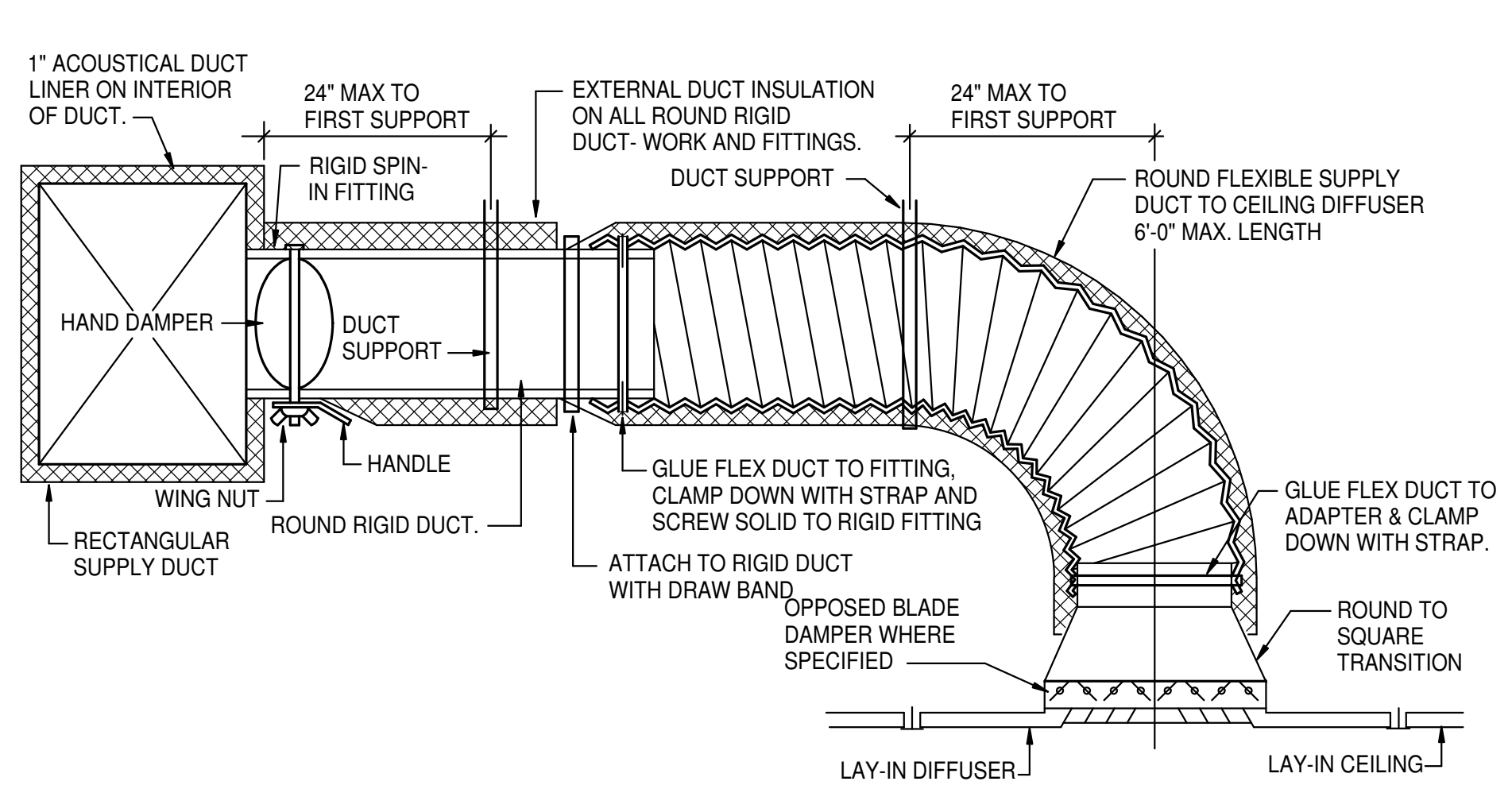
H | DUCT CONSTRUCTION DETAIL | NO SCALE



J | | NO SCALE



K | CEILING DIFFUSER IN NON-ACCESSIBLE CEILING | NO SCALE



L | CEILING DIFFUSER IN ACCESSIBLE CEILING | NO SCALE


ROOF TOP HEATING & AIR CONDITIONING UNIT SCHEDULE																		REMARKS	1
SYM.	CFM	MIN. O.A.	S.P.E.	BLOWER H.P.	EER	CHAR	MCA	MOP	WEIGHT	GAS CONN	HEATING @ ELEV. MBH IN	HEATING @ ELEV. MBH OUT	EAT	LAT	COOLING MBH	EAT	WB		
RT 1	2400	500	.75"	1	12.6	208/60/3	31.0	45	1300#	3/4"	150	120	65°F	104°F	72	95°F	67°F	TRANE MODEL YHC-072-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 2	2400	500	.75"	1	12.6	208/60/3	31.0	45	1300#	3/4"	150	120	65°F	104°F	72	95°F	67°F	TRANE MODEL YHC-072-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 3	2400	500	.75"	1	12.6	208/60/3	31.0	45	1300#	3/4"	150	120	65°F	104°F	72	95°F	67°F	TRANE MODEL YHC-072-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 4	2400	600	.75"	1	12.6	208/60/3	31.0	45	1300#	3/4"	150	120	65°F	104°F	72	95°F	67°F	TRANE MODEL YHC-072-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 5	1200	300	.75"	1	12.4	208/60/3	21.0	30	1100#	1/2"	80	64	65°F	106°F	37.6	95°F	67°F	TRANE MODEL YHC-08-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 6	1200	300	.75"	1	12.4	208/60/3	21.0	30	1100#	1/2"	80	64	65°F	106°F	37.6	95°F	67°F	TRANE MODEL YHC-08-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 7	2400	500	.50"	1	12.6	208/60/3	31.0	45	1300#	3/4"	150	120	65°F	104°F	72	95°F	67°F	TRANE MODEL YHC-072-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 8	3000	600	.50"	1	12.6	208/60/3	42.0	50	1400#	3/4"	200	160	65°F	106°F	94.8	95°F	67°F	TRANE MODEL YHC-082-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 9	1820	300	.75"	1	12.8	208/60/3	30.0	45	1100#	1/2"	130	104	65°F	110°F	61	95°F	67°F	TRANE MODEL YHC-08-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 10	3200	600	.50"	1	12.5	208/60/3	41.0	50	1400#	3/4"	200	160	65°F	104°F	104	95°F	67°F	TRANE MODEL YHC-102-E3 WITH FULL ECONOMIZER AND COIL GUARDS. MOUNT ON ROOF CURB.	
RT 11	1000	500	1.0	1	17.9	208/60/3	25.4	30	1250#	1/2"	81.4	55	0°F	63°F	52	95°F	45°F	CAPTIVE AIR MODEL CASRTU1-1100-13-ST-DOAS. MOUNT ON ROOF CURB.	

UNIT TO BE SUPPLIED WITH FACTORY FURNISHED CONVENIENCE OUTLET AND DISCONNECT.

EXHAUST FAN SCHEDULE										
SYM.	TYPE	C.F.M.	S.P.E.	H.P.	CHAR.	R.P.M.	CONTROL	REMARKS		
EF 1	ROOF MOUNTED DOWN FLOW	600	.38"	1/4	120/60/1	1350	WITH LIGHTS	TWIN CITY MODEL 095BE-DCRD. MOUNT ON ROOF CURB		
EF 2	ROOF MOUNTED DOWN FLOW	300	.25"	1/6	120/60/1	950	WITH LIGHTS	TWIN CITY MODEL 090BE-DCRD. MOUNT ON ROOF CURB		
EF 3	ROOF MOUNTED DOWN FLOW	600	.38"	1/4	120/60/1	1350	WITH LIGHTS	TWIN CITY MODEL 095BE-DCRD. MOUNT ON ROOF CURB		
EF 4	ROOF MOUNTED DOWN FLOW	300	.25"	1/6	120/60/1	950	WITH LIGHTS	TWIN CITY MODEL 090BE-DCRD. MOUNT ON ROOF CURB		
EF 5	ROOF MOUNTED UTILITY VENT SET	240	.50"	1/4	120/60/1	1160	WITH HOOD	TWIN CITY MODEL 90 DCV. MOUNT ON ROOF CURB		
EF 6	ROOF MOUNTED UTILITY VENT SET	240	.50"	1/4	120/60/1	1160	WITH HOOD	TWIN CITY MODEL 90 DCV. MOUNT ON ROOF CURB		
EF 7	ROOF MOUNTED UTILITY VENT SET	560	.50"	1/4	120/60/1	1750	WITH HOOD	TWIN CITY MODEL 90 DCV. MOUNT ON ROOF CURB		
EF 8	ROOF MOUNTED UTILITY VENT SET	560	.50"	1/4	120/60/1	1750	WITH HOOD	TWIN CITY MODEL 90 DCV. MOUNT ON ROOF CURB		
EF 9	ROOF MOUNTED UTILITY VENT SET	240	.50"	1/4	120/60/1	1160	WITH HOOD	TWIN CITY MODEL 90 DCV. MOUNT ON ROOF CURB		
EF 10	CEILING MOUNTED	100	.25"	87 W	120/60/1	640	WITH LIGHTS	TWIN CITY MODEL T100WITH 6" Dia. DUCT UP TO ROOF CAP		
EF 11	CEILING MOUNTED	230	.5"	166 W	120/60/1	830	COOLING STAT	TWIN CITY MODEL T250WITH 10"x4" DUCT UP TO WALL CAP		
FANS TO HAVE CHEMICAL RESISTANT COATING ON ALL PARTS EXPOSED TO AIR STREAM. INTERIOR OF ALL EXHAUST DUCTWORK TO HAVE CHEMICAL RESISTANT COATING.										

FANS TO HAVE CHEMICAL RESISTANT COATING ON ALL PARTS EXPOSED TO AIR STREAM. INTERIOR OF ALL EXHAUST DUCTWORK TO HAVE CHEMICAL RESISTANT COATING.

ELECTRIC HEATER SCHEDULE						REMARKS	1
SYM.	TYPE	BTU	KW	CHAR.	CONTROL		
EH 1	SURFACE WALL MOUNTED	6824	2	208/60/1	INTEGRAL	QMARK MODEL AWH4408 WITH AWH-SM MOUNTING FRAME	
EH 2	SURFACE WALL MOUNTED	13650	4	208/60/1	INTEGRAL	QMARK MODEL AWH4408 WITH AWH-SM MOUNTING FRAME	

GRILLE AND REGISTER SCHEDULE									
SYM.	SIZE (W x H)	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		200-400	STEEL	WHITE	10" Dia.	NO	NO	PRICE SMD IN 24x24 LAY-IN MODULE
CD-3	12 x 12		200-400	STEEL	WHITE	10" Dia.	NO	YES	PRICE SMD WITH BEVELED FRAME
CD-4	9 x 9		50-199	STEEL	WHITE	8" Dia.	NO	NO	PRICE SMD WITH BEVELED FRAME
CD-5	15 x 15		500	STEEL	WHITE	12" 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 \$35L
RG-2	12 x 12		50-400	STEEL	WHITE	12 x 10	NO	NO	PRICE \$35 IN 24x24 LAY-IN MODULE
RG-3	18 x 18		401-800	STEEL	WHITE	18 x 10	NO	NO	PRICE \$35 IN 24x24 LAY-IN MODULE
ER-1	12 x 12		0-400	STEEL	WHITE	10 x 10	NO	YES	PRICE \$35D
PH-1	18 x 24 x 31.8"		---	ALUM	ANODIZED	18 x 24	NO	NO	PENNBARRY PH WITH MOTORIZED DAMPER AND BIRD SCREEN. 

SPLIT SYSTEM A/C UNIT SCHEDULE													
INDOOR UNIT						OUTDOOR UNIT						REFRIG. LINES	
SYM.	CFM	BTU	CHAR	MCA		SYM.	BTU	MCA	SEER	CHAR	MANUFACTURER	LIQUID	SUCTION
FC 1A	600-700	30,000	208/60/1	1	MITSUBISHI MODEL PKA-A30KA WITH WALL MOUNTED CONTROLLER AND COND. PUMP	FC 1B	30,000	25	16	208/60/1	MITSUBISHI MODEL PUY-A30NH3 WITH LOW AMBIENT HARD-START KIT	3/8"	5/8"

1355 EAST CENTER  
POCATELLO, IDAHO 83201  
PHONE: (208) 233-0501  
FAX: (208) 233-0520  
EMAIL: esa@engsys.com  
EPA 408 NUMBER: 21034

DATE: 6/30/2021

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M3.1

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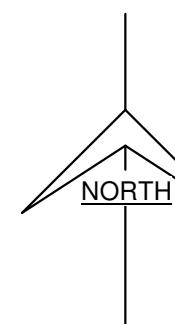
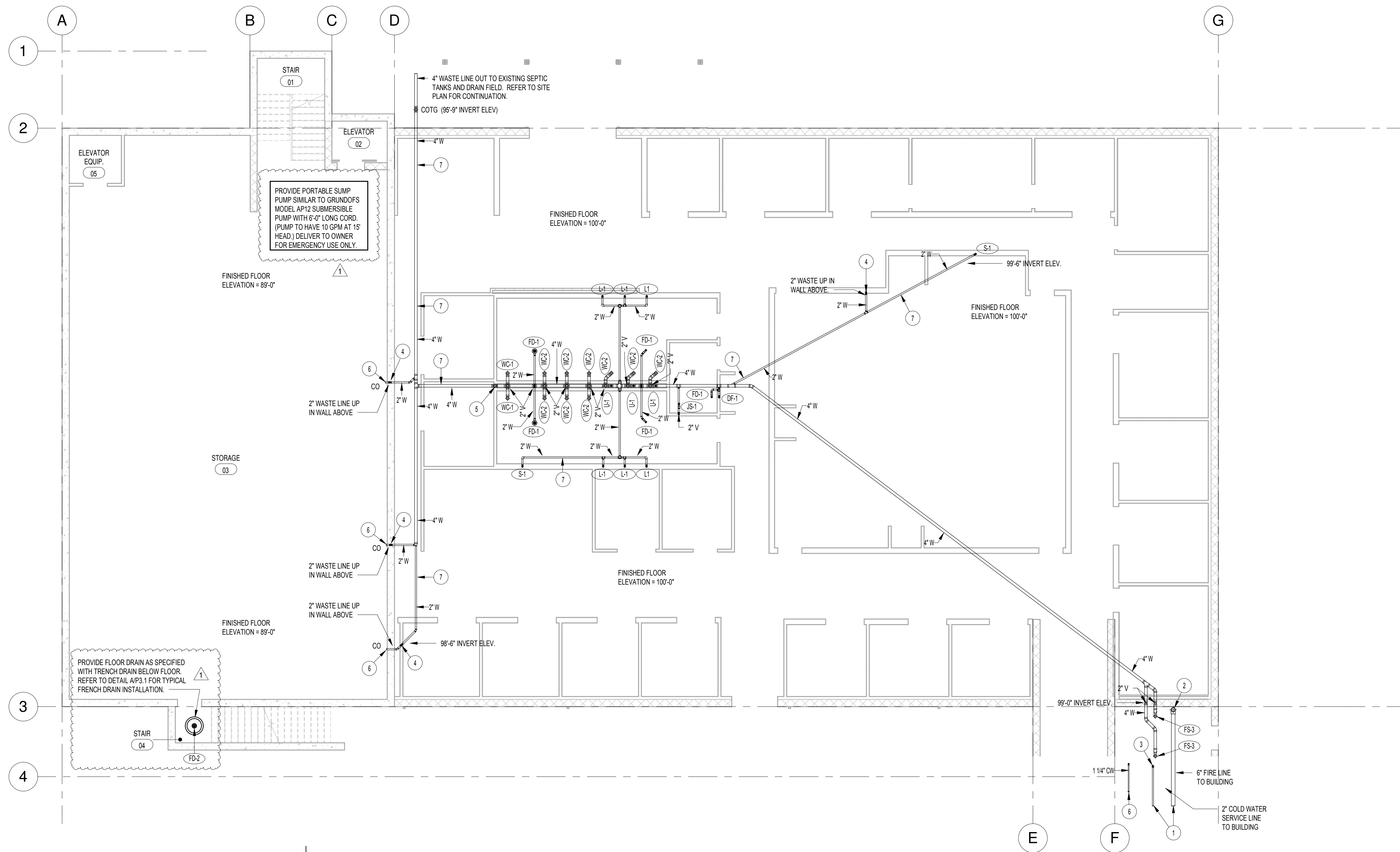
MECHANICAL SCHEDULES AND DETAILS

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935 Shoshone Street North \* Twin Falls, Idaho 83301

(208) 736-8050 Fax: (208) 733-0950



# PLUMBING BASEMENT AND FOUNDATION PLAN

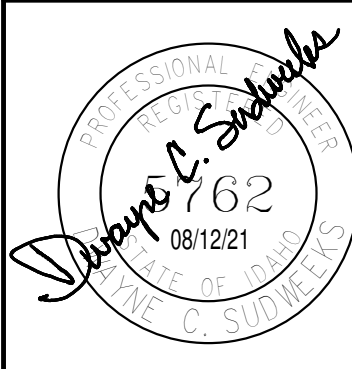
1/8" = 1'-0"

## PLAN NOTES:

- 1 REFER TO SITE PLAN FOR CONTINUATION OF PIPING.
- 2 RISE 6" FIRE WATER LINE UP THRU FLOOR AND CONNECT TO FIRE RISER AND ALARM VALVE. REFER TO DETAIL AP3.2 FOR TYPICAL PIPING CONNECTIONS.
- 3 RISE 2" COLD WATER SERVICE LINE UP THRU FLOOR AND CONNECT TO PRESSURE REDUCING VALVE. REFER TO DETAIL MP3.1 FOR TYPICAL CONNECTIONS.
- 4 WASTE LINE DOWN FROM FIXTURES ON UPPER LEVEL. REFER TO SHEET P1.1 FOR CONTINUATION OF PIPING. EXTEND WASTE PIPING INTO BASEMENT AND CAP FOR CLEANOUT.
- 5 4" WASTE LINE UP IN WALL ABOVE. REFER TO LARGE SCALE PLAN 1/P2.1 & 2/P2.1 FOR CONTINUATION.
- 6 EXTEND 1-1/4" COLD WATER OUT AND CAP FOR FUTURE LANDSCAPING IRRIGATION SYSTEM. REFER TO DETAIL MP3.1 FOR TYPICAL PIPING CONNECTION TO BACK-FLOW PREVENTION DEVICE.
- 7 WASTE PIPING BELOW FLOOR TO BE GRADED AT 1/4" PER FOOT. KEEP AS HIGH AS POSSIBLE.

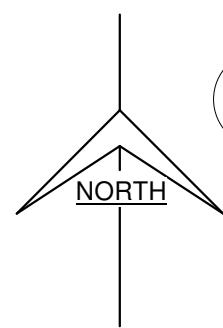
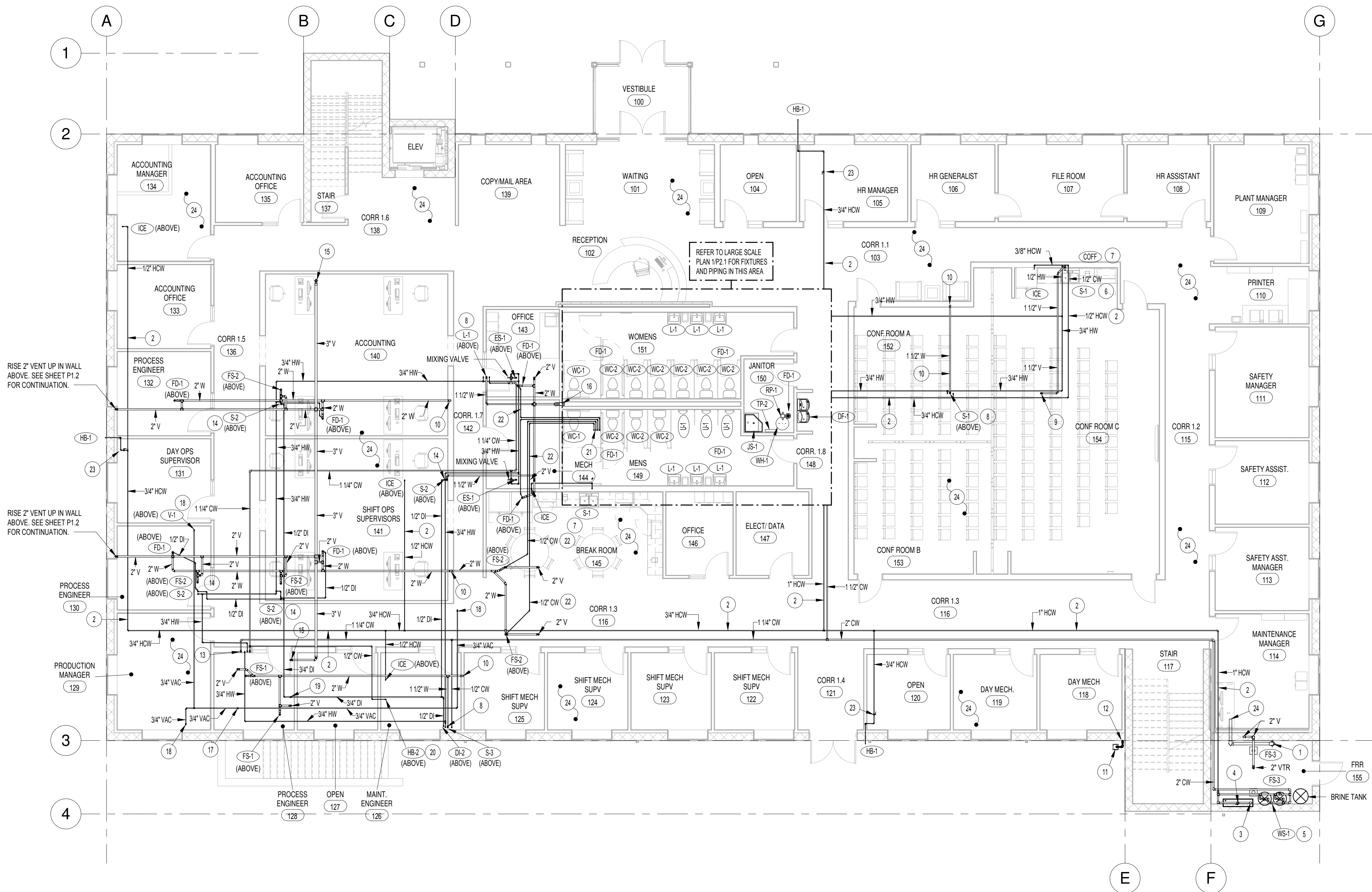
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PLUMBING BASEMENT & FOUNDATION PLAN

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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) 233-0529  
EMAIL: esa@engsystems.com  
ESA JOB NUMBER: 21034

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# 1 MAIN LEVEL PLUMBING FLOOR PLAN

1/8" = 1'-0"

## PLAN NOTES:

- RISE 8" FIRE LINE UP THRU FLOOR AND CONNECTION TO FIRE RISER AND ALARM VALVE. REFER TO DETAIL AP3.2 FOR TYPICAL PIPING CONNECTIONS.
- "HARD" COLD WATER (HCW) TO BE RUN TO ALL BREAK ROOM SINKS, CONFERENCE ROOM SINKS, COFFEE MAKERS, DRINKING FOUNTAINS, ICE MAKER HOOD-UPS, AND ALL EXTERIOR HOSE BIBBS. REFER TO PLUMBING FIXTURE SCHEDULE ON SHEET P3.2
- RISE 2" DOMESTIC COLD-WATER LINE UP THRU FLOOR AND CONNECT TO PRESSURE REDUCING STATION. REFER TO FOUNDATION PLAN ON SHEET P1.0 FOR CONTINUATION.
- PROVIDE AND INSTALL 2" DOMESTIC PRESSURE REDUCING VALVE AND 1-1/4" LAWN SPRINKLER BACK-FLOW PREVENTION DEVICE. RUN 2" COLD WATER LINE TO WATER SOFTNER. REFER TO DETAIL OPS.1) RISE 1" "HARD" WATER LINE UP INTO CEILING SPACE AND RUN AS SHOWN. REFER TO DETAIL M.1P3.1 FOR TYPICAL PIPING CONNECTIONS.
- PROVIDE AND INSTALL DUPLEX WATER SOFTENER SYSTEM WITH SINGLE BRINE TANK AS SPECIFIED. CONNECT TO 2" COLD WATER LINE FOR ALL FIXTURES IN BUILDING EXCEPT THOSE OTHERWISE NOTED. (SEE PLUMBING FIXTURE SCHEDULE ON SHEET P3.2)
- PROVIDE 3/8" HARD COLD WATER LINE FROM SINK TO ICE UTILITY BOX. RUN PIPING IN WALL.
- PROVIDE 3/8" TEE AND SHUT-OFF VALVE IN HARD COLD WATER LINE BELOW SINK FOR FUTURE COFFEE MAKERS.
- RISE 1/2" HOT AND COLD WATER LINES AND 1-1/2" WASTE LINE UP THRU FLOOR AND CONNECT TO FIXTURE ABOVE. REFER TO SHEET P1.2 FOR FIXTURES ON UPPER LEVEL.
- RISE 1-1/2" VENT LINE UP IN THE WALL ABOVE. REFER TO SHEET P1.2 FOR CONTINUATION OF VENT PIPING ON UPPER LEVEL.
- RUN WASTE LINE THRU CEILING SPACE. REFER TO SHEET M1.1 TO COORDINATE WITH DUCTWORK. GRADE WASTE LINE AT 1/4" SLOPE PER FOOT. (RUN THRU JUST SPACE AS MUCH AS POSSIBLE). DROP PIPING DOWN IN WALL TO BELOW FLOOR. REFER TO PLUMBING FOUNDATION PLAN ON SHEET P1.0 FOR CONTINUATION.
- GAS METER PROVIDED AND INSTALLED BY LOCAL GAS COMPANY. METER TO BE SIZED FOR 1,750,000 BTU WITH 2 PSI DISCHARGE PRESSURE. SEE GAS LOAD CALCULATIONS ON SHEET P1.3.
- RISE 1-1/4" GAS LINE (2 PSI) UP IN CORNER. SEE ROOF PLAN ON SHEET P1.3 FOR CONTINUATION OF PIPING. SECURE TO WALL WITH UNISTRUT PIPE SUPPORTS.
- RISE 1-1/4" COLD WATER, 3/4" HOT WATER, AND 3/4" HOT WATER REGR. LINE UP IN DEIONIZED WATER ROOM ABOVE. CONNECT TO WATER HEATER AND TO REDUCED PRESSURE BACK-FLOW PREVENTION DEVICE. REFER TO LARGE SCALE PLAN 7P2.1 FOR CONTINUATION OF PIPING AND EQUIPMENT LOCATIONS IN ROOM ABOVE.
- RISE 1/2" DI WATER & 1/2" HW LINES UP THRU FLOOR AND CONNECT TO FIXTURE ABOVE. COORDINATE WATER PIPING WITH WASTE AND VENT LINES IN AREA.
- RISE 3" VENT UP IN WALL ABOVE. REFER TO SHEET P1.2 FOR CONTINUATION.
- DROP 4" WASTE LINE DOWN IN CHASE. REFER TO LARGE SCALE PLAN 7P2.1 FOR CONTINUATION.
- RISE 1" VACUUM LINE UP THRU FLOOR ABOVE AND CONNECT TO VACUUM PUMP. REFER TO LARGE SCALE PLAN 7P2.1 FOR CONTINUATION.
- RISE 3/4" VACUUM LINE UP THRU FLOOR ABOVE AND CONNECT TO TURRET VALVES ABOVE. SEE SHEET P1.2 FOR CONTINUATION.
- RISE 3/4" DE-IONIZED WATER LINE UP THRU FLOOR ABOVE AND CONNECT TO DE-IONIZED WATER SYSTEM. REFER TO LARGE SCALE PLAN 7P2.1 FOR CONTINUATION.
- RISE 1/2" DE-IONIZED WATER LINE UP IN WALL ABOVE AND CONNECT TO HOSE BIBB AS SPECIFIED. REFER TO DETAIL BP1.2 FOR TYPICAL INSTALLATION.
- RISE (4) 1/2" COLD WATER LINES UP THRU FLOOR ABOVE AND CONNECT TO TRAP PRIMER MANIFOLD ABOVE. REFER TO DETAIL JP3.1 FOR TYPICAL INSTALLATION.
- RUN 1/2" COLD WATER LINE FROM TRAP PRIMER MANIFOLD TO FLOOR DRAIN. REFER TO DETAIL JP3.1 FOR TYPICAL INSTALLATION.
- PROVIDE SHUT-OFF VALVE ABOVE ACCESSIBLE CEILING 3/4" COLD WATER LINE. DROP 3/4" WATER LINE DOWN IN WALL TO EXTERNAL HOSE BIBB. REFER TO DETAIL BP3.1 FOR TYPICAL INSTALLATION OF HOSE BIBB.
- ENTIRE BUILDING TO BE FIRE SPRINKLED TO MEET NFPA 13 CODE REQUIREMENTS. FIELD VERIFY LOCATIONS OF OTHER PIPING, DUCTWORK, ELECTRICAL CONDUITS AND BUILDING STRUCTURE. COORDINATE FIRE SPRINKLER HEADS AND PIPING WITH ALL OTHER TRADES. FIRE PIPING TO GO AROUND ALL MECHANICAL DUCTWORK, GRILLES, ANY SKYLIGHTS, ROOF

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MAIN LEVEL PLUMBING FLOOR PLAN

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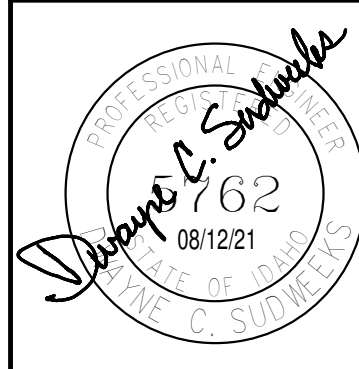
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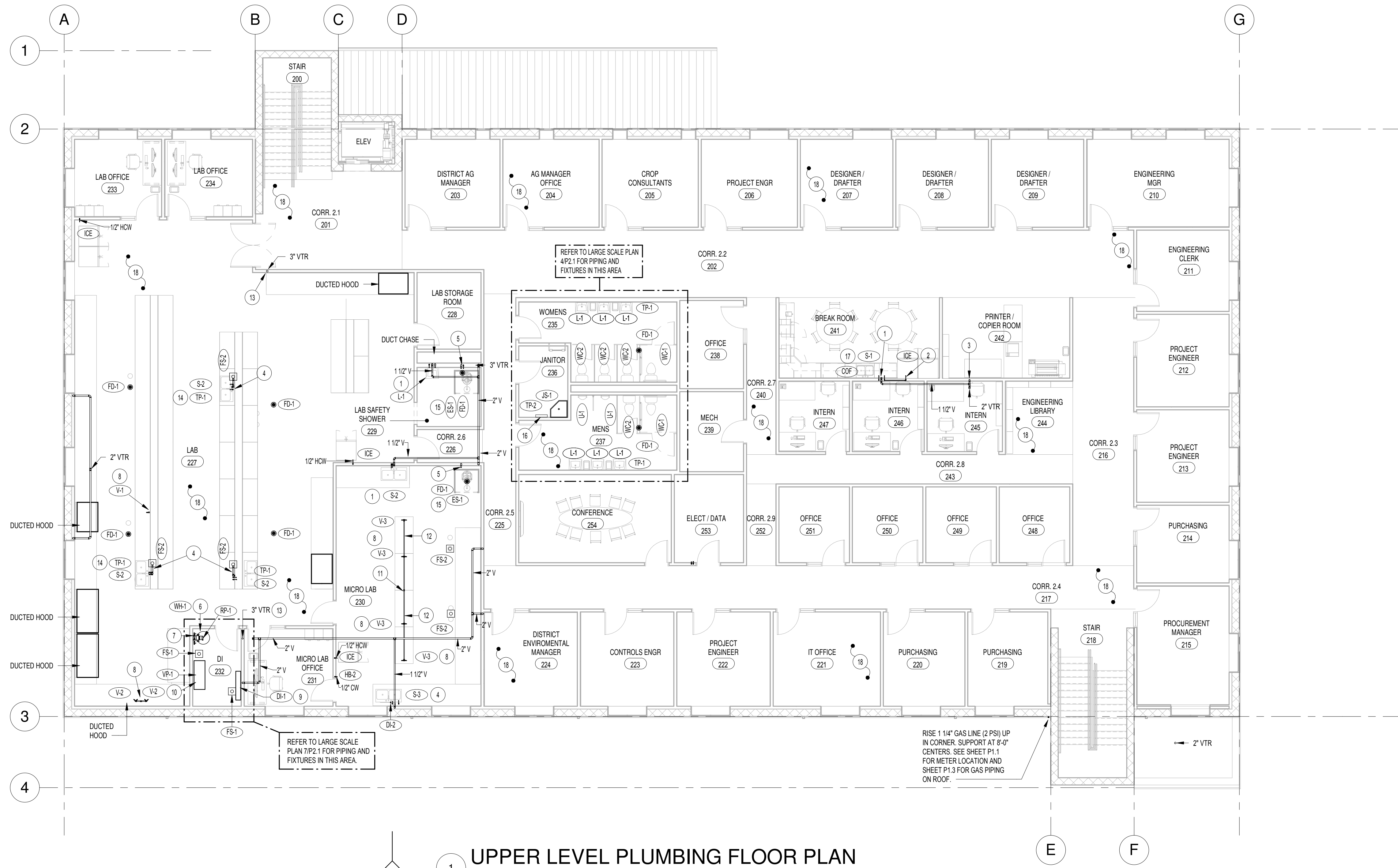
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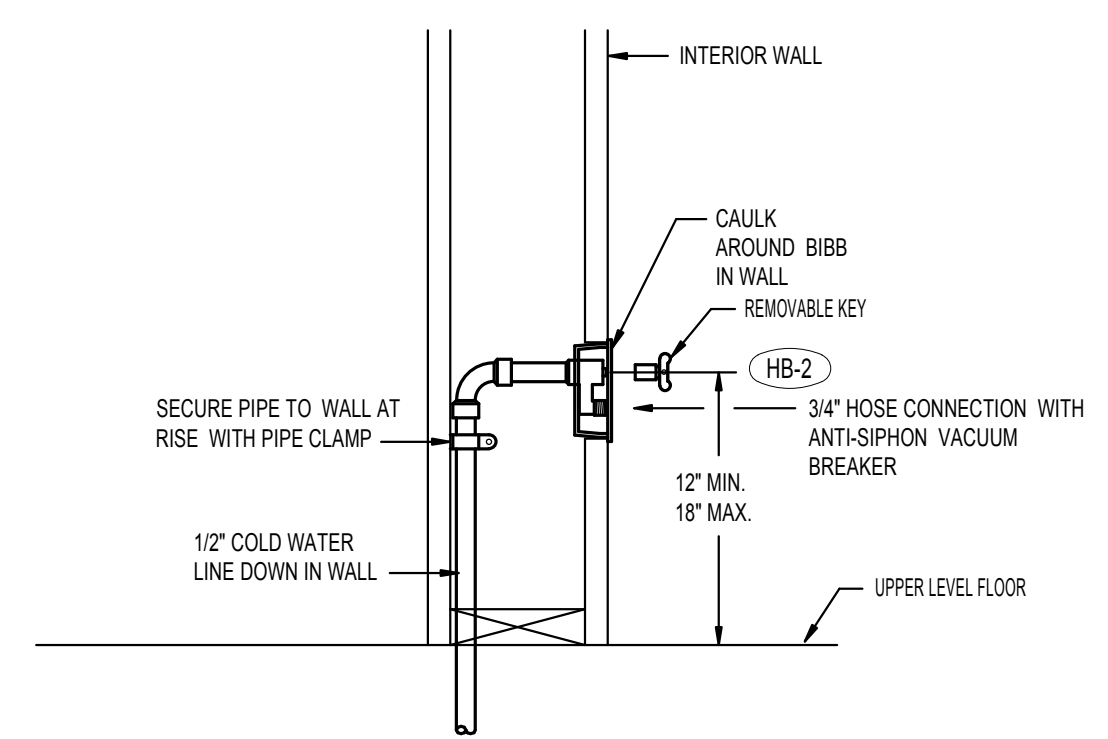


**Engineered Systems Associates**  
1355 EAST CENTER  
POCATELLO, IDAHO 83201  
PHONE: (208) 233-0501  
FAX: (208) 233-0529  
EMAIL: esa@engsystems.com  
ESA JOB NUMBER: 21034



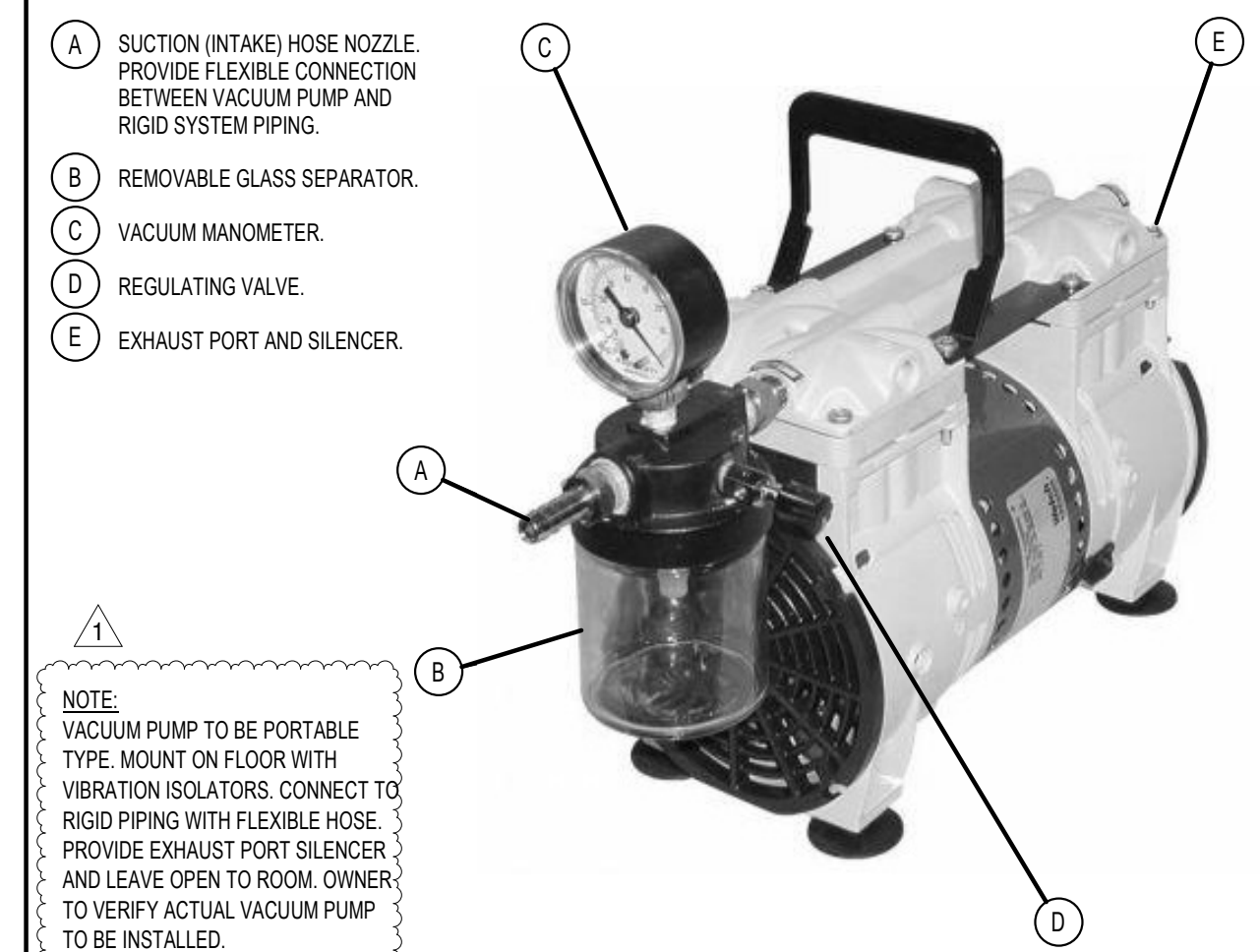


1 UPPER LEVEL PLUMBING FLOOR PLAN  
1/8" = 1'-0"



B RECESSED INTERIOR HOSE BIBB

NO SCALE



A VACUUM PUMP PIPING DIAGRAM

NO SCALE

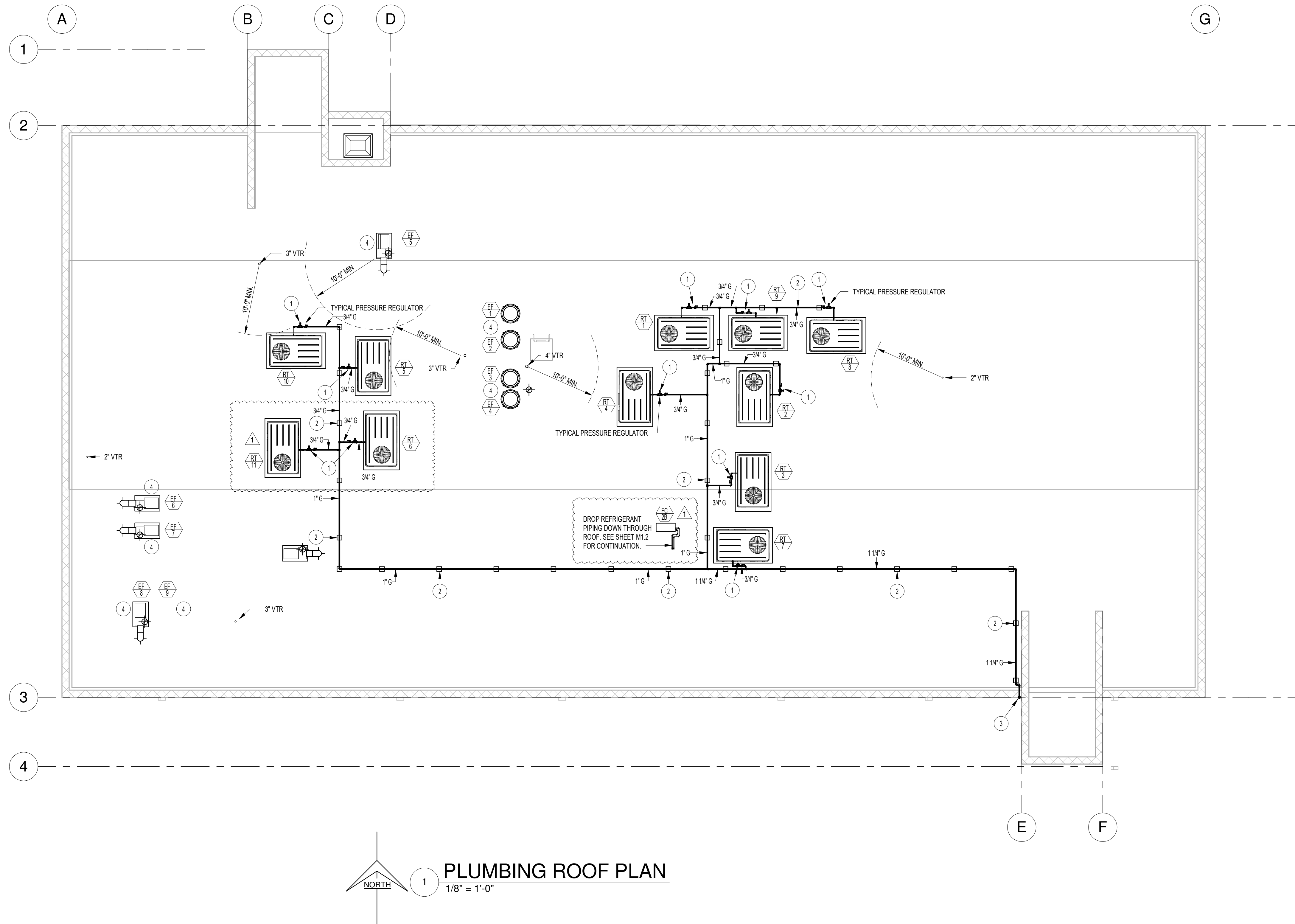
- PLAN NOTES:**
- 1 RISE 1/2" HARD CW, 1/2" HW AND 1 1/2" WASTE LINE UP THRU FLOOR. CONNECT TO FIXTURE. PROVIDE SHUT-OFF VALVES AND P-TRAP AS SPECIFIED. RISE 1 1/2" VENT UP TO ABOVE CEILING AND RUN AS SHOWN.
  - 2 PROVIDE 3/8" HARD COLD WATER LINE FROM SINK TO ICE UTILITY BOX. RUN PIPING IN WALL.
  - 3 RISE 1 1/2" VENT FROM FIXTURE ON MAIN LEVEL UP THRU FLOOR. EXTEND PIPING UP IN WALL TO ABOVE CEILING AND CONNECT TO VTR.
  - 4 PROVIDE FIXTURE AS SPECIFIED. RISE 1/2" DI WATER AND 1/2" HW PIPING UP FROM BELOW TO CONNECT TO FIXTURE. RUN WASTE PIPING TO FLOOR SINK.
  - 5 RISE 1 1/4" COLD WATER AND 3/4" HOT WATER LINES UP THRU FLOOR AND CONNECT TO EMERGENCY SHOWER AND EYEWASH. PROVIDE MIXING VALVE WITH SHOWER. REFER TO DETAIL DP3.1 FOR TYPICAL INSTALLATION.
  - 6 PROVIDE AND INSTALL WATER HEATER AS SPECIFIED COMPLETE WITH REGR. PUMP, MIXING VALVE AND THERMAL EXPANSION TANK. REFER TO DETAIL HPS.1 FOR TYPICAL INSTALLATION.
  - 7 PROVIDE BACKFLOW PREVENTION DEVICE IN 1-1/4" COLD WATER LINE WHICH SERVES ALL LAB FIXTURES ON UPPER LEVEL. PLACE DEVICE ABOVE WATER HEATER AND PIPE DRAIN LINE TO FLOOR SINK BELOW. SEE 7/P2.1
  - 8 PROVIDE VACUUM TURRET IN COUNTER AS SPECIFIED. CONNECT TO 1/2" VACUUM PIPING BELOW FLOOR. REFER TO SHEET P1.1 FOR PIPING BELOW FLOOR.
  - 9 PROVIDE AND INSTALL WATER HEATER AS SPECIFIED COMPLETE WITH REGR. PUMP, MIXING VALVE AND THERMAL EXPANSION TANK. REFER TO DETAIL HPS.1 FOR TYPICAL INSTALLATION.
  - 10 PROVIDE AND INSTALL VACUUM PUMP AS SPECIFIED. MOUNT ON FLOOR WITH VIBRATION ISOLATORS AS RECOMMENDED BY MANUFACTURER. SEE DETAIL AP2.1 FOR TYPICAL INSTALLATION.
  - 11 RISE VACUUM PIPING UP THRU FLOOR. PIPE TO BE CENTRED IN CABINERY. FIELD VERIFY EXACT LOCATION WITH MILLWORK PROVIDED.
  - 12 RUN 3/4" VACUUM LINE THRU CABINERY AS SHOWN. PIPE NOT TO INTERFERE WITH SHELVING OR HARDWARE IN CABINET. FIELD VERIFY CONDITIONS WITH FURNITURE PROVIDED.
  - 13 RISE 3" VENT UP IN WALL. EXTEND THRU ROOF. REFER TO SHEET P1.1 FOR VENT PIPING TO UPPER LEVEL FLOOR DRAINS AND FLOOR SINKS.
  - 14 PROVIDE TRAP TRIMER WITH FIXTURE. RUN 1/2" COLD WATER LINE BELOW FLOOR TO NEAREST FLOOR DRAIN. REFER TO SHEET P1.1 FOR PIPING BELOW FLOOR. SEE DETAIL KP3.1 FOR TRAP PRIMER INSTALLATION.
  - 15 PROVIDE AND INSTALL EMERGENCY AND EYEWASH STATION AS SPECIFIED. COMPLETE WITH FROSTED STRIP CURTAINS GRAB BARS. SINGLE TEMPERED WATER LINE CONNECTION. PROVIDE MIXING VALVE IN CEILING SPACE OF MAIN LEVEL FOR TEMPERED WATER. REFER TO DETAIL DP3.1 FOR TYPICAL INSTALLATION.
  - 16 PROVIDE AND INSTALL TRAP PRIMER MANIFOLD IN WALL. REFER TO DETAIL JPS.1 FOR TYPICAL INSTALLATION AND PIPING CONNECTIONS. RUN SEPARATE 1/2" COLD WATER LINE TO EACH INDIVIDUAL FLOOR DRAIN OR FLOOR SINK AS SHOWN ON SHEET P1.1.
  - 17 PROVIDE 3/8" TEE AND SHUT-OFF VALVE IN HARD COLD WATER LINE BELOW SINK FOR FUTURE COFFEE MAKER(S).
  - 18 ENTIRE BUILDING TO BE FIRE SPRINKLED TO MEET NFP-13 CODE REQUIREMENTS. FIELD VERIFY LOCATIONS OF OTHER PIPING, DUCTWORK, ELECTRICAL CONDUITS AND BUILDING STRUCTURE. COORDINATE FIRE SPRINKLER HEADS AND PIPING WITH ALL OTHER TRADES. FIRE PIPING TO GO AROUND ALL MECHANICAL DUCTWORK, GRILLS, ANY SKYLIGHTS, ROOF

**A NEW FACILITY FOR:**  
**T.F. AMALGAMATED SUGAR-OFFICE**  
2320 ORCHARD DR. E., TWIN FALLS, ID 83301  
**UPPER LEVEL PLUMBING FLOOR PLAN**

**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) 233-0529  
EMAIL: esa@engsystems.com  
ESR JOB NUMBER: 210.34

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**PLUMBING ROOF PLAN**  
1/8" = 1'-0"

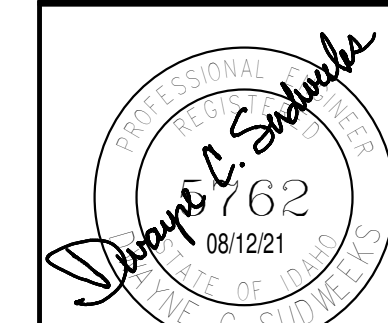
### PLAN NOTES:

- 1 ROOF TOP HVAC UNIT PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. PLUMBING CONTRACTOR TO ROUGH IN AND CONNECT 3/4" GAS LINE WITH SHUT-OFF VALVE AND PRESSURE REGULATOR. (2 PSI TO 0.5 PSI) REFER TO DETAIL LP3.1 FOR TYPICAL GAS LINE CONNECTION.
- 2 RUN GAS PIPING ON ROOF WITH PYRAMID TYPE SUPPORTS SPACED AT 8'-0" MAXIMUM ON CENTERS. COORDINATE WITH SLOPE OF ROOF AND WITH EQUIPMENT.
- 3 DROP 1-1/4" GAS LINE (2 PSI) DOWN IN CORNER. REFER TO SHEET P1.1 FOR CONTINUATION OF PIPING AND LOCATION OF GAS METER.
- 4 EXHAUST FANS BY MECHANICAL CONTRACTOR (REFER TO SHEET M1.2). COORDINATE PIPING WITH EQUIPMENT.

### GAS LOAD CALCULATIONS

RT-1	150,000 BTU
RT-2	150,000 BTU
RT-3	150,000 BTU
RT-4	150,000 BTU
RT-5	80,000 BTU
RT-6	80,000 BTU
RT-7	200,000 BTU
RT-8	160,000 BTU
RT-9	130,000 BTU
RT-10	200,000 BTU
RT-11	81,400 BTU

TOTAL EQUIPMENT BTU LOAD	1,531,400
BTU/CU.FT.	1000
TOTAL DESIGN LOAD	1,750,000
DEVELOPED LENGTH OF PIPING	250 FT.
DISCHARGE PRESSURE	2 PSI
GAS LINE SIZE	1 1/4"



**Engineered Systems Associates**  
1355 EAST CENTER  
POCATELLO, IDAHO 83201  
PHONE: (208) 233-0501  
FAX: (208) 233-0529  
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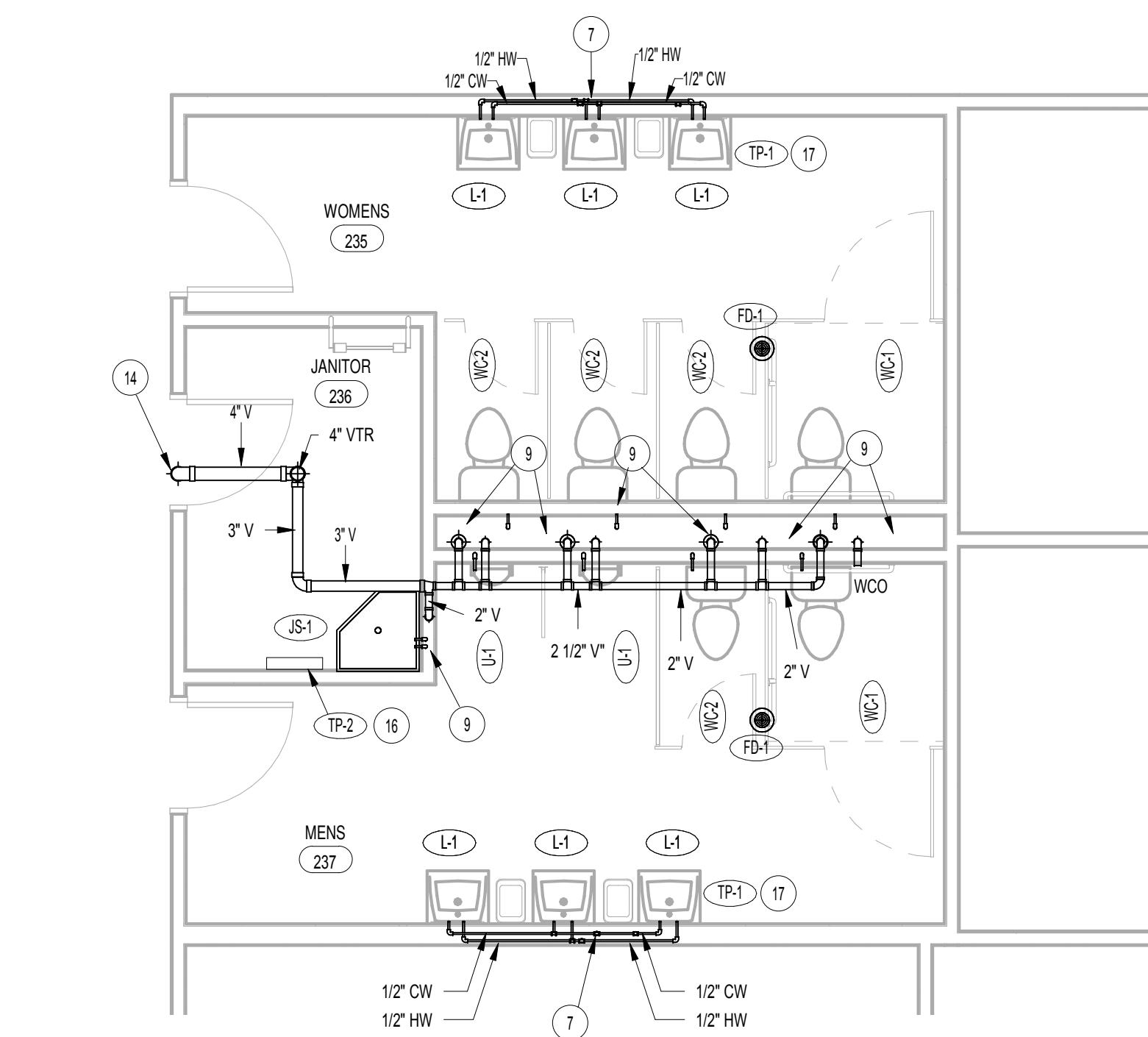
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**PLUMBING ROOF PLAN**

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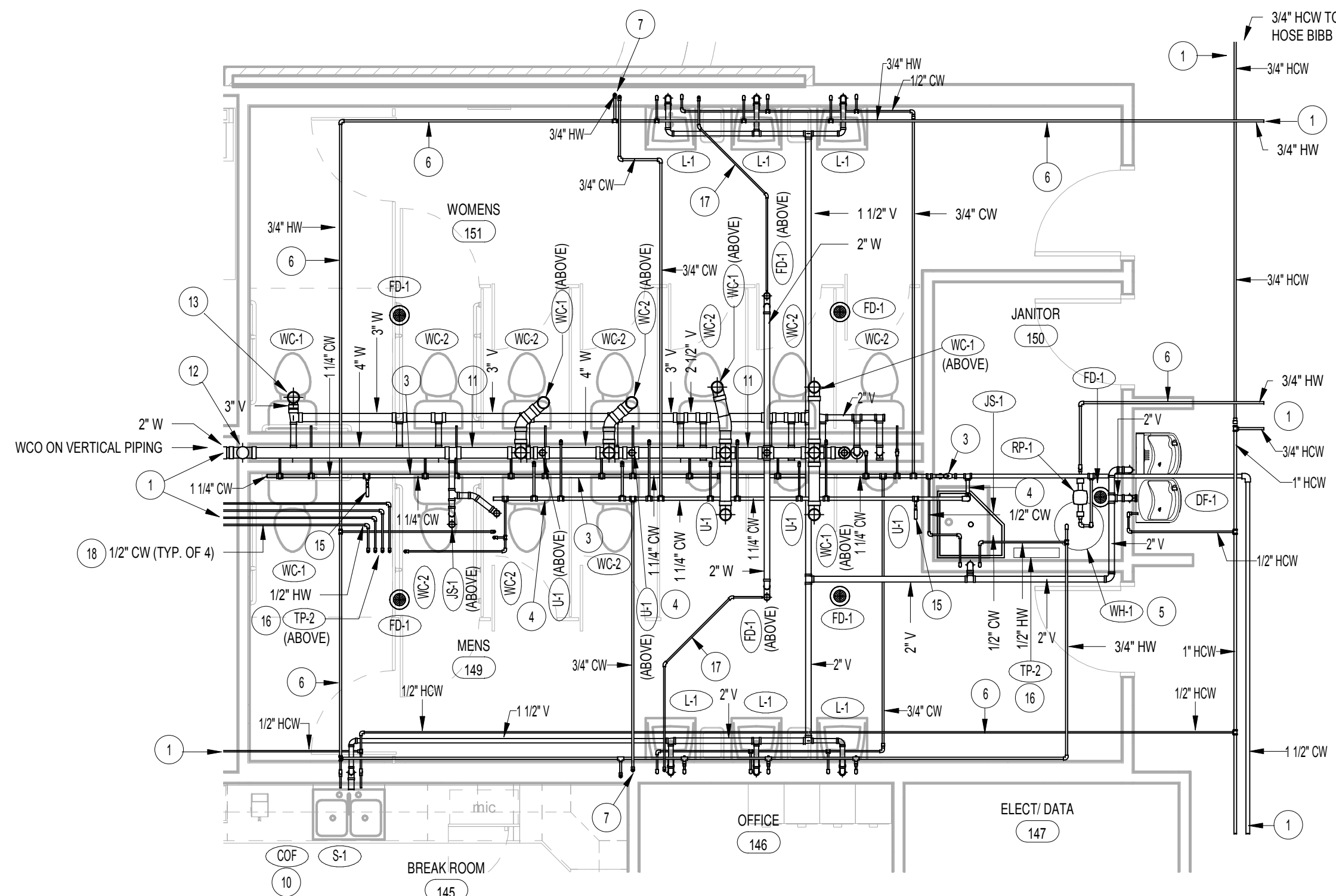
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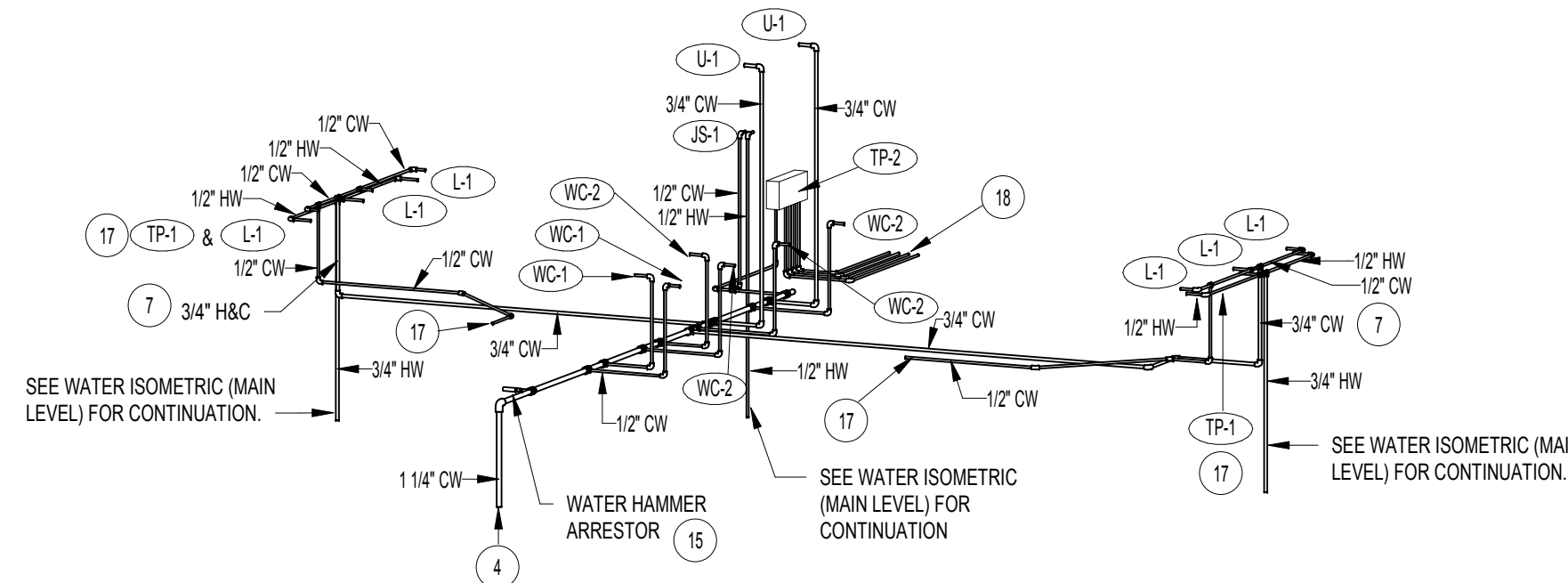
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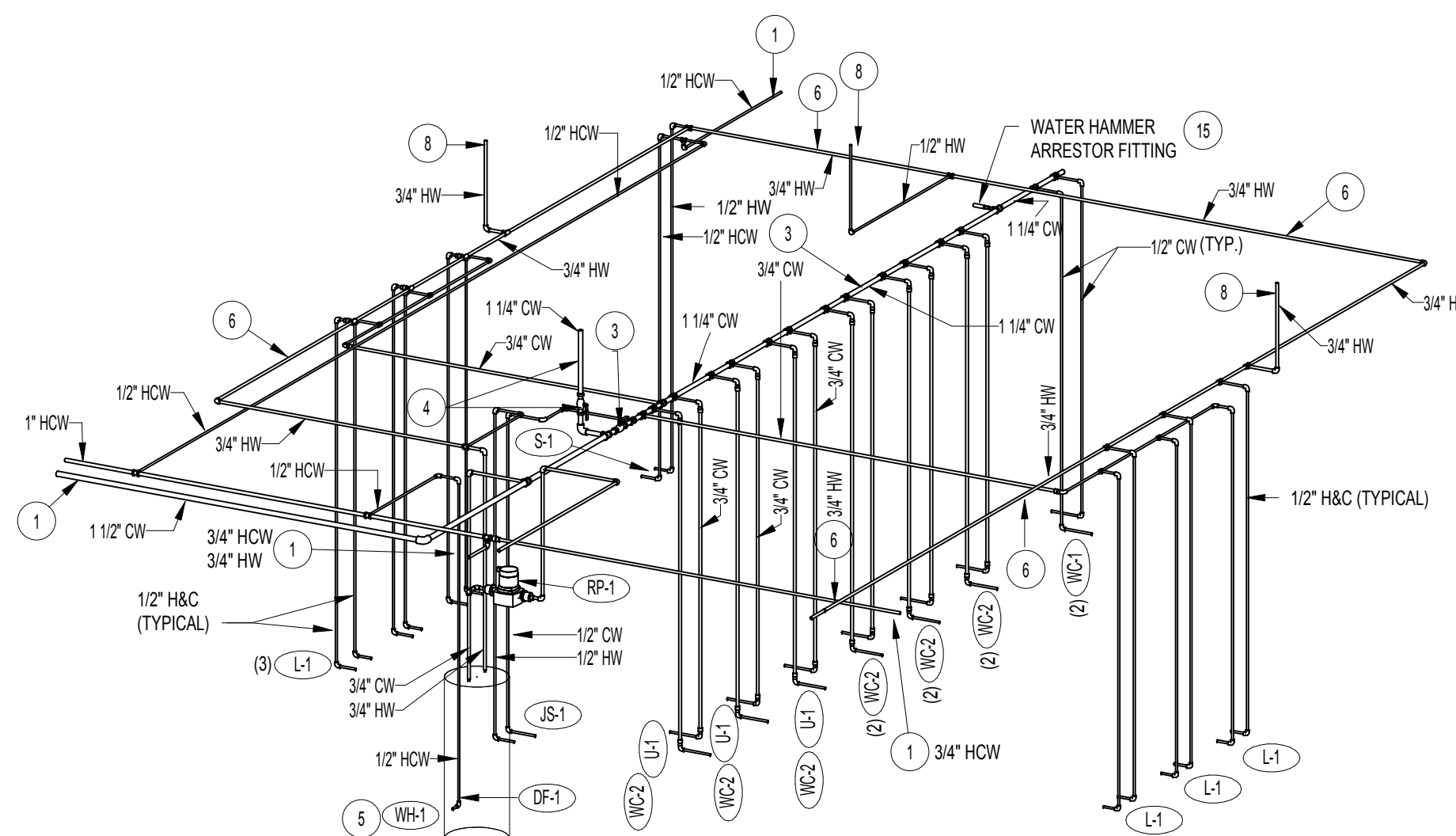
4 LARGE SCALE TOILET ROOMS - UPPER LEVEL  
1/4" = 1'-0"



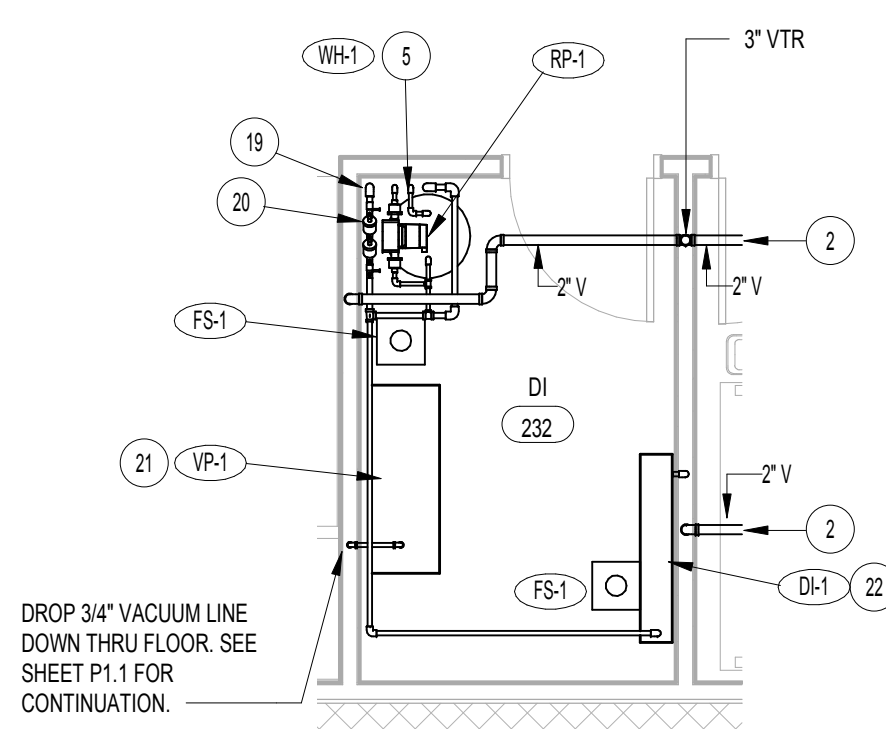
1 LARGE SCALE TOILET ROOMS - MAIN LEVEL  
1/4" = 1'-0"



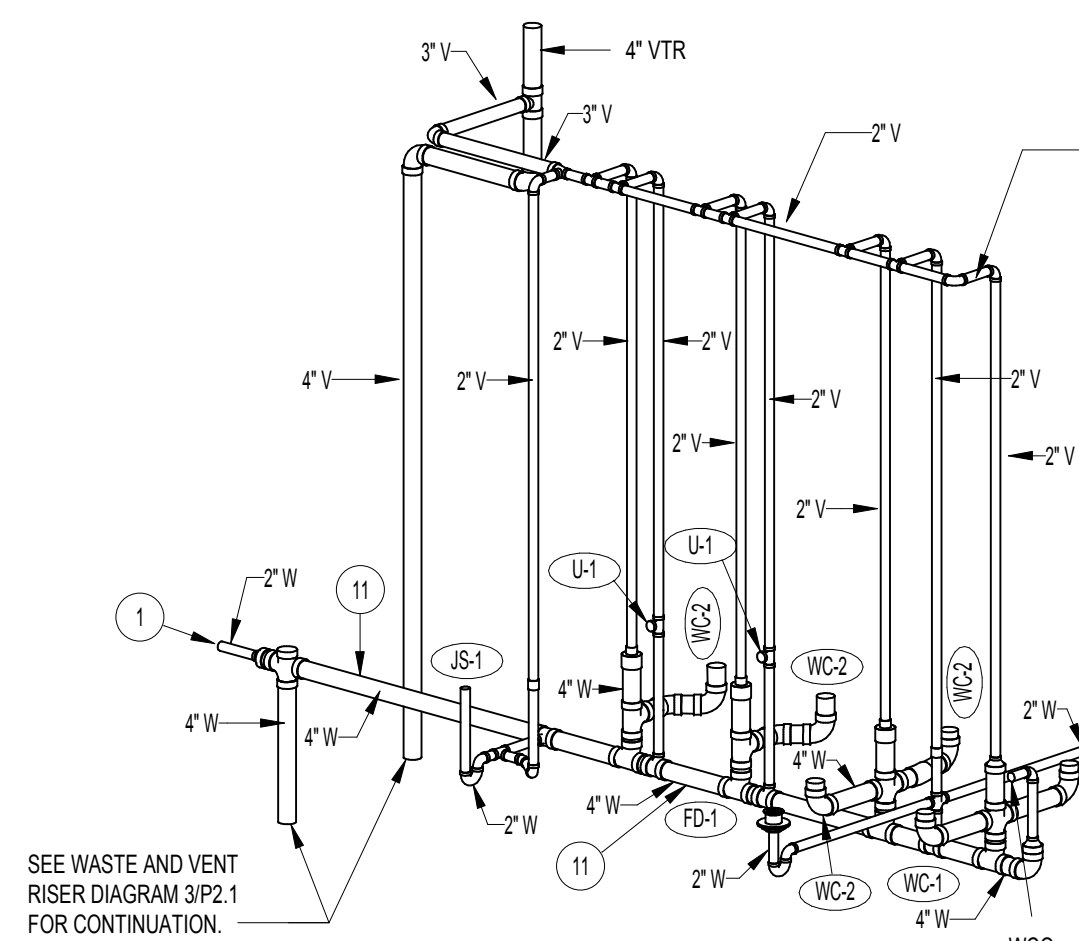
5 WATER PIPING ISOMETRIC (UPPER LEVEL)



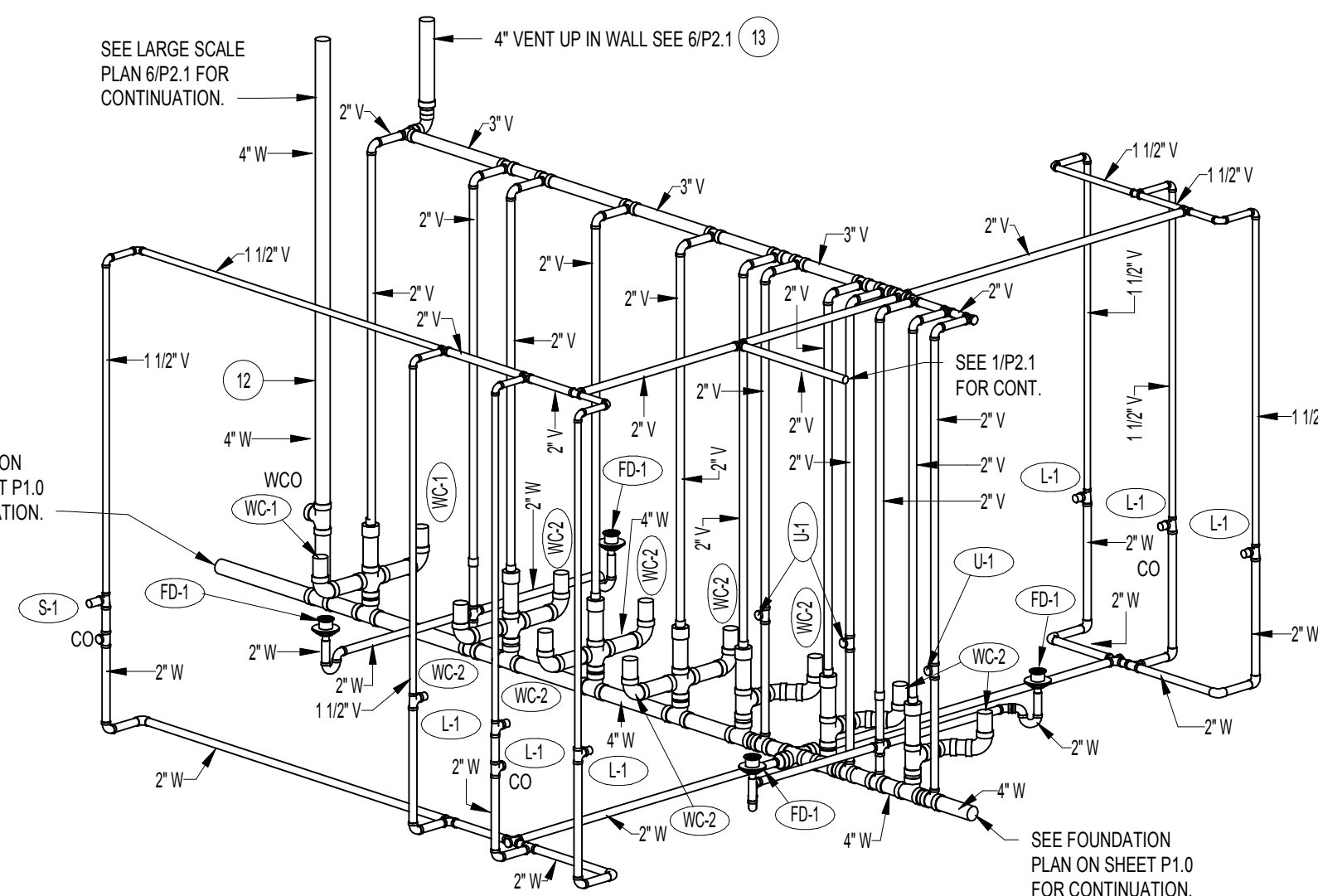
2 WATER PIPING ISOMETRIC (MAIN LEVEL)



7 LARGE SCALE DI WATER ROOM  
1/4" = 1'-0"



6 WASTE AND VENT RISER DIAGRAM (UPPER LEVEL)



3 WASTE AND VENT RISER DIAGRAM (MAIN LEVEL)

## PLAN NOTES:

- REFER TO SHEET P1.1 FOR CONTINUATION OF PIPING ON MAIN LEVEL.
- REFER TO SHEET P1.2 FOR CONTINUATION OF PIPING ON UPPER LEVEL.
- PROVIDE SHUT-OFF VALVE IN 1-1/2" COLD LINE SERVING MAIN LEVEL FIXTURES. VALVE TO BE LOCATED IN ACCESSIBLE LOCATION AND LABELED AS MAIN LEVEL COLD WATER SHUT-OFF VALVE. RUN WATER PIPING FOR MAIN LEVEL FIXTURES AT 4" TO 8" ABOVE CEILING. DROP INDIVIDUAL LINES DOWN IN WALL TO CONNECT TO FIXTURES. SUPPORT PIPING FROM UPPER LEVEL FLOOR STRUCTURE.
- PROVIDE SHUT-OFF VALVE IN 1-1/4" COLD LINE SERVING UPPER LEVEL FIXTURES. VALVE TO BE LOCATED IN ACCESSIBLE LOCATION AND LABELED AS UPPER LEVEL COLD WATER SHUT-OFF VALVE. RISE WATER PIPING FOR UPPER LEVEL UP AND RUN AT 4" TO 8" BELOW UPPER LEVEL FLOOR. RISE INDIVIDUAL LINES UP IN WALL ABOVE TO CONNECT TO FIXTURES. SUPPORT PIPING FROM UPPER LEVEL FLOOR STRUCTURE.
- PROVIDE AND INSTALL ELECTRIC WATER HEATER AS SPECIFIED. WATER HEATER TO BE COMPLETE WITH HEAT TRAP NIPPLES, EXPANSION TANK, RECIRC PUMP, AND MIXING VALVE. REFER TO DETAIL HP3.1 FOR TYPICAL WATER HEATER PIPING CONNECTIONS.
- HOT WATER PIPING TO BE RUN AT 4" TO 8" ABOVE MAIN LEVEL CEILING. ROUTE PIPING AS SHOWN TO PROVIDE CONTINUOUS FLOW BACK TO WATER HEATER AND RECIRC PUMP. RISE PIPING UP FOR UPPER LEVEL FIXTURES AND DROP DOWN IN WALL FOR MAIN LEVEL FIXTURES AS REQUIRED.
- RISE 3/4" HOT AND COLD WATER LINES UP IN WALL ABOVE AND CONNECT TO (3) LAVATORIES ON UPPER LEVEL.
- RISE HOT WATER LINE UP THRU UPPER LEVEL FLOOR. REFER TO WATER PIPING ISOMETRIC (UPPER LEVEL) FOR CONTINUATION.
- RAISE WASTE AND WATER PIPING UP THRU FLOOR AND CONNECT TO FIXTURE. RISE VENT PIPING UP IN CHASE TO ABOVE UPPER LEVEL CEILING.
- PROVIDE 3/8" "HARD" COLD WATER TAP WITH SHUT-OFF VALVE BELOW COUNTER FROM ADJACENT SINK FOR FUTURE COFFEE MAKER CONNECTION.
- WASTE PIPING FROM UPPER LEVEL FIXTURES TO BE RUN AT 8" TO 8" BELOW UPPER LEVEL FLOOR. KEEP PIPING AS HIGH AS POSSIBLE. SLOPE PIPING AT 1/4" PER FOOT IN DIRECTION OF FLOW AND COORDINATE WITH OTHER PIPING AND DUCTWORK.
- DROP 4" WASTE LINE DOWN IN WALL TO BE BELOW MAIN LEVEL FLOOR. REFER TO PLUMBING FOUNDATION PLAN ON SHEET P1.0 FOR CONTINUATION.
- RISE 4" VENT UP IN WALL ABOVE. REFER TO LARGE SCALE TOILET ROOMS (UPPER LEVEL) ON THIS SHEET FOR CONTINUATION.
- 4" VENT UP IN WALL FROM MAIN LEVEL FIXTURES. REFER TO LARGE SCALE TOILET ROOMS (MAIN LEVEL) FOR CONTINUATION OF PIPING BELOW. CONNECT TO 4" VERTICAL VENT ABOVE UPPER LEVEL CEILING. COORDINATE VTR WITH EXHAUST FANS MOUNTED ON ROOF. (REFER TO SHEET M1.2.)
- PROVIDE WATER HAMMER ARRESTOR ON COLD WATER LINE. SEE SPECIFICATIONS.
- PROVIDE AND INSTALL TRAP PRIMER MANIFOLD IN WALL. REFER TO DETAIL JP3.1 FOR TYPICAL INSTALLATION AND PIPING CONNECTIONS. RUN SEPARATE 1/2" COLD WATER LINE TO EACH INDIVIDUAL FLOOR DRAIN. SEE PLUMBING FOUNDATION PLAN (SHEET P1.0) FOR PIPING BELOW MAIN LEVEL FLOOR.
- PROVIDE AND INSTALL TRAP PRIMER BELOW LAVATORY. RUN 1/2" COLD WATER LINE BELOW FLOOR TO FLOOR DRAIN AS SHOWN. REFER TO DETAIL KP3.1 TYPICAL INSTALLATION.
- RUN (4) 1/2" COLD WATER LINES FROM TRAP PRIMER ON UPPER LEVEL TO (2) FLOOR DRAINS AND (2) FLOOR SINKS IN MICRO LAB AREA. PIPING TO BE RUN IN CEILING SPACE OF MAIN LEVEL. REFER TO SHEET P1.1 FOR ROUTING OF WATER LINES AND TO DETAIL JP3.1 FOR TYPICAL LINE CONNECTION TO FLOOR DRAIN OR FLOOR SINK.
- RISE 1 1/4" COLD WATER, 3/4" HOT WATER, AND 3/4" HOT WATER RECIRC LINE UP IN DEIONIZED WATER ROOM ABOVE. CONNECT TO WATER HEATER AND TO REDUCED PRESSURE BACK-FLOW PREVENTION DEVICE. REFER TO LARGE SCALE PLAN TP2.1 FOR CONTINUATION OF PIPING AND EQUIPMENT LOCATIONS IN ROOM ABOVE.
- PROVIDE BACKFLOW PREVENTION DEVICE IN 1-1/4" COLD WATER LINE WHICH SERVES ALL LAB FIXTURES ON UPPER LEVEL. PLACE DEVICE ABOVE WATER HEATER AND PIPE DRAIN LINE TO FLOOR SINK BELOW. SEE 7/P2.1
- PROVIDE AND INSTALL VACUUM PUMP AS SPECIFIED. MOUNT ON FLOOR WITH VIBRATION ISOLATORS AS RECOMMENDED BY MANUFACTURER. SEE DETAIL AP2.1 FOR TYPICAL INSTALLATION.
- PROVIDE AND INSTALL DE-IONIZED WATER SYSTEM COMPLETE WITH FILTERS AND VALVE. MOUNT SYSTEM ON WALL. RUN DRAIN LINE TO FLOOR SINK. REFER

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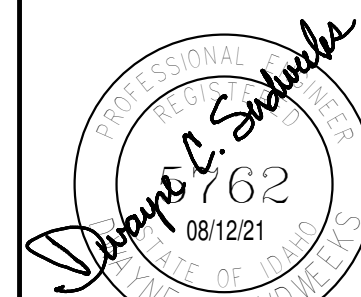
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(208) 736-8050 Fax: (208) 733-0950



**Engineered Systems Associates**  
1355 EAST CENTER  
POCATELLO, IDAHO 83201  
PHONE: (208) 233-0901  
FAX: (208) 233-0920  
EMAIL: esa@engsystems.com  
ESA JOB NUMBER: 21034

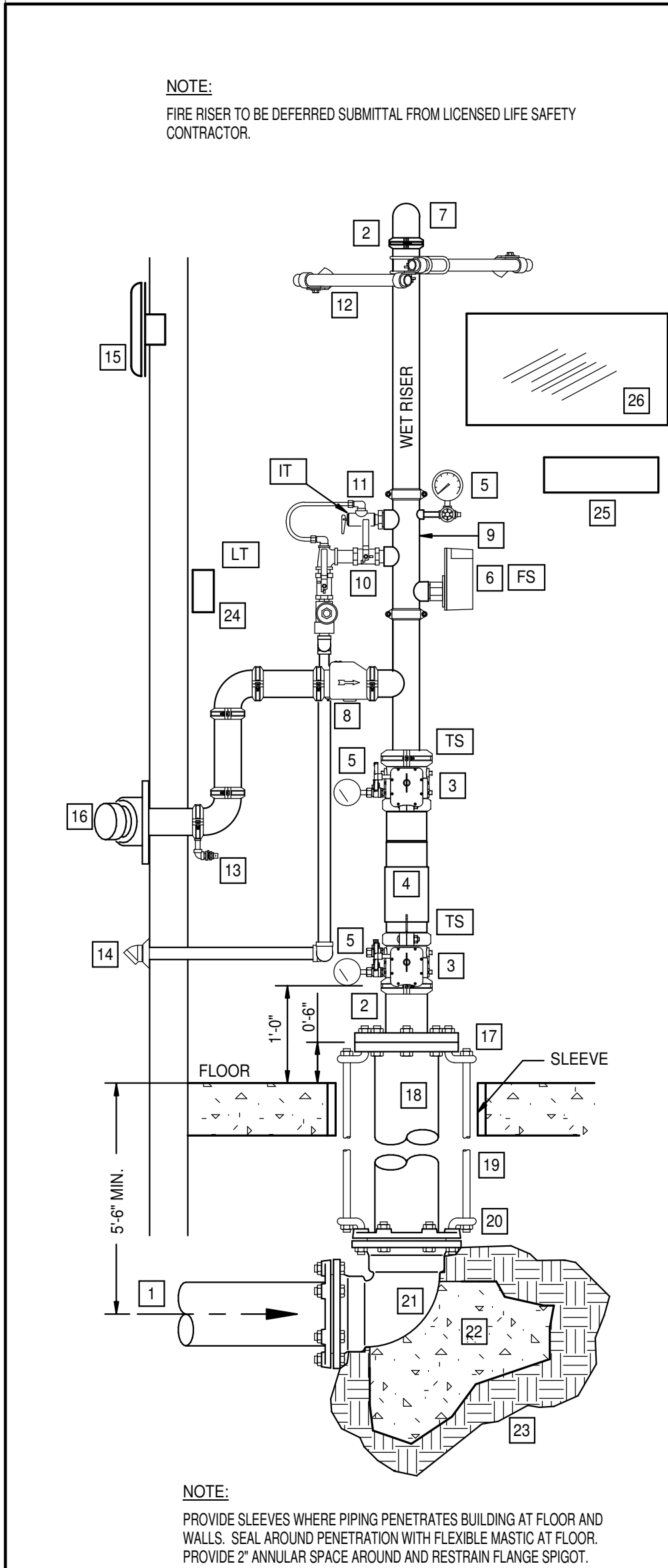
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**P2.1**



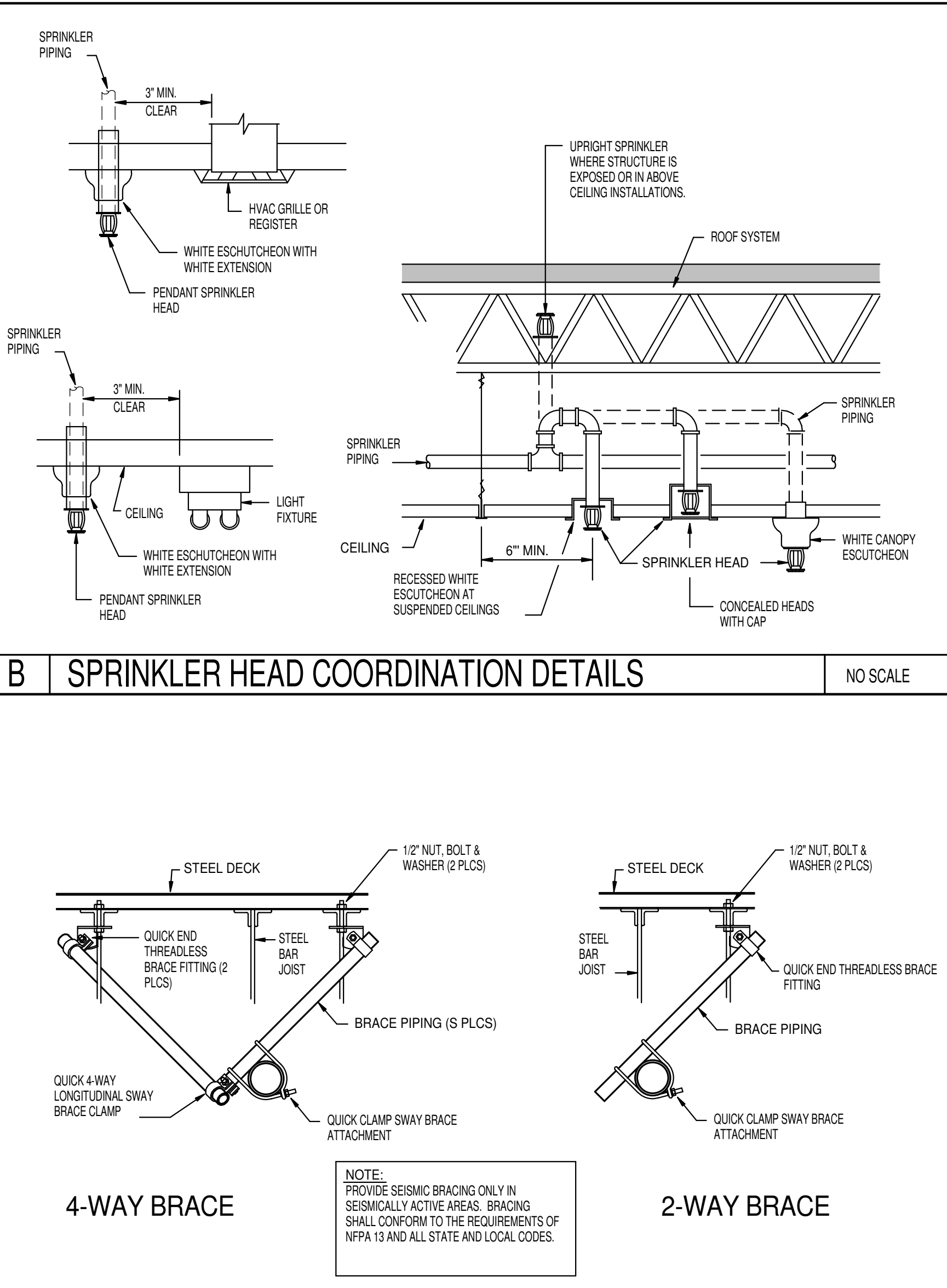




A | VERTICAL FIRE RISER DETAIL

WET RISER DETAIL NOTES

- 1 WATER SUPPLY FROM CITY WATER MAIN. USE CLASS S3 DUCTILE IRON WHEN CROSSING UNDER BLDG FOUNDATION.
- 2 USE FLEXIBLE GROOVED PIPE COUPLING ONLY IF SEISMIC BRACING IS REQUIRED. SEE NOTE #12.
- 3 GROOVED BUTTERFLY VALVE WITH INTEGRAL SUPERVISORY SWITCH.
- 4 DOUBLE CHECK BACKFLOW PREVENTER WITH RELATED TRIM AND GAUGES.
- 5 3-1/2" DIAMETER WATER GAUGE WITH 1/4" TEST AND ISOLATION VALVE.
- 6 VANE TYPE WATER FLOW SWITCH.
- 7 SUPPLY TO WET PIPE FIRE SPRINKLER SYSTEM.
- 8 SWING CHECK VALVE.
- 9 RISER MANIFOLD - INCLUDES PRESURE GAUGE, FLOW SWITCH, PRESSURE RELIEF VALVE, AND TEST AND MAIN DRAIN DEVICE.
- 10 INSPECTOR'S TEST & MAIN DRAIN DEVICE "1T" - PIPE TO OUTSIDE.
- 11 PRESSURE RELIEF VALVE SHALL BE REQUIRED SET AT 175 PSI-PIPED TO DISCHARGE OUTSIDE.
- 12 SEISMIC BRACING REQUIRED IN SEISMIC DESIGN CATEGORY C, D, E, F.
- 13 1/2" AUTOMATIC BALL DRIP VALVE.
- 14 PIPE TO DRAIN OUTSIDE.
- 15 WEATHERPROOF ELECTRIC BELL OR HORN AND STROBE (OUTSIDE).
- 16 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.
- 17 GALVANIZED FLANGE AND SPOOL PIECE
- 18 CLASS S3 D.I. FLANGED SPIGOT
- 19 3/4" A.T.R.
- 20 3/4" BENT EYE BOLT
- 21 MECHANICAL JOINT 90° ELL
- 22 CONCRETE THRUST BLOCK WITH 5 SQ. FEET BEARING AREA
- 23 UNDISTURBED EARTH
- 24 LOW TEMPERATURE SENSOR - MOUNTED ON WALL - THIS SWITCH IS PROVIDED UNDER DIVISION 28 OF THE SPECIFICATIONS.
- 25 SPARE HEAD CABINET WITH SPARE SPRINKLER HEADS AND WRENCHES.
- 26 LAMINATED SYSTEM MAP WITH SYSTEM START-UP AND SHUT-DOWN INSTRUCTIONS.



C | SEISMIC BRACING DETAILS

FIXTURE SCHEDULE					
SYM.	DESCRIPTION	HOT	COLD	WASTE	VENT
V-3	DOUBLE DECK MOUNTED VACUUM VALVE - KEWAUNEE W-0263-00 WITH 2-WAY 180 DEGREE OUTLET TURRET AND (2) BALL VALVES. MOUNT IN COUNTER DECK AND CONNECT TO 1/2" VACUUM LINE WITH SHUT-OFF VALVE BELOW COUNTER.	---	---	---	---
VP-1	VACUUM PUMP - SIMILAR TO WELCH WCB-L 2561B-50 PISTON PUMP WITH TRAP AND GAUGE 1/3 HP MOTOR (120/60/1) AND POWER CORD. 1/4" INLET AND EXHAUST CONNECTIONS AND 2.3 CFM FLOW. OWNER TO VERIFY EXACT MODEL PROVIDED.	---	---	---	---
WC-1	ADA WALL MOUNTED WATER CLOSET - KOHLER K-4325-SS-0 "KINGSTON" WITH ELONGATED BOWL, K-4670C OPEN FRONT SEAT, SLOAN ROYAL 111-1.6 FLUSH VALVE WITH SLOAN EBV-89-M SIDE MOUNT OPERATOR, AND WALL CARRIER. MOUNT AT ADA HEIGHT.	---	1"	4"	2"
WC-2	WALL MOUNTED WATER CLOSET - KOHLER K-4325-SS-0 "KINGSTON" WITH ELONGATED BOWL, K-4670C OPEN FRONT SEAT, SLOAN ROYAL 111-1.6 FLUSH VALVE WITH SLOAN EBV-89-M SIDE MOUNT OPERATOR, AND WALL CARRIER.	---	1"	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, (200/60/1), 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	DUPLEX WATER SOFTENER - DOMINATOR 920 SERIES, MODEL TP210 WITH 210,000 GRAIN CAPACITY, 1-1/2" METERED VALVE, BY-PASS VALVES, SYSTEM CONTROLLER WITH POWER CORD, SINGLE BRINE TANK, 43 GPM CONTINUOUS FLOW AND 55 GPM PEAK FLOW. (120/60/1) RUN 1" DRAIN LINE TO FLOOR SINK.	---	1-1/4"	1"	---

FIXTURE SCHEDULE					
SYM.	DESCRIPTION	HOT	COLD	WASTE	VENT
S-3	DOUBLE COMPARTMENT LAB SINK - ELKAY MODEL ELUH311810DBG STAINLESS STEEL UNDERMOUNT SINK WITH KEWAUNEE MODEL W-0340-0V DECK MOUNTED FAUCET WITH 8" SPREAD RIGID GOOSENECK WITH VACUUM BREAKER, REMOVABLE STRAIGHT SERRATED HOSE CONNECTOR, DISC TYPE VALVE, AND 1/2" HOT AND COLD WATER CONNECTIONS WITH SHUT-OFF VALVES BELOW COUNTER. (COORDINATE FAUCET WITH ADDITIONAL DI-2 FAUCET.)	1/2"	1/2"	1-1/2"	1-1/2"
TP-1	SINGLE TRAP PRIMER - ZURN Z-1020XL 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 KP3.1 FOR TYPICAL INSTALLATION.	---	1/2"	---	---
TP-2	MULTIPLE TRAP PRIMER - ZURN Z-1020XL 5 TRAP PRIMER SYSTEM. MOUNT RECESSED IN WALL WITH COVER. RUN 1/2" COLD WATER LINE TO EACH TRAP AS SHOWN ON FLOOR PLANS. REFER TO DETAIL MP301 FOR INSTALLATION.	---	3/4"	---	---
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"	---	---
V-1	SINGLE DECK MOUNTED VACUUM VALVE - KEWAUNEE W-0260-00 WITH SINGLE TURRET OUTLET AND BALL VALVE. MOUNT IN COUNTER DECK AND CONNECT TO 1/2" VACUUM LINE WITH SHUT-OFF VALVE BELOW COUNTER.	---	---	---	---
V-2	DOUBLE DECK MOUNTED VACUUM VALVE - KEWAUNEE W-0263-00 WITH 2-WAY 90 DEGREE OUTLET TURRET AND (2) BALL VALVES. MOUNT IN COUNTER DECK AND CONNECT TO 1/2" VACUUM LINE WITH SHUT-OFF VALVE BELOW COUNTER.	---	---	---	---

FIXTURE SCHEDULE					
SYM.	DESCRIPTION	HOT	COLD	WASTE	VENT
COF	COFFEE MAKER - PROVIDE 3/8" SHUT-OFF VALVE ON ADJACENT SINK COLD WATER LINE. CONNECT TO COFFEE MAKER AS PER MANUFACTURERS RECOMMENDATIONS. CONNECT DRAIN LINE TO ADJACENT SINK WITH DISHWASHER TYPE FITTING.	---	1/2" (HARD)	---	---
DF-1	BI-LEVEL DRINKING FOUNTAIN - ELKAY MODEL LZSTL8WSLP AND EZH20 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"
DI-1	DIONIZED WATER FILTER STATION - US WATER RAPTOR RO DI 70 LPH LAB SYSTEM WATER TREATMENT SYSTEM COMPLETE WITH WALL MOUNTED INITIAL CARBON FILTERS, WALL MOUNTED DUAL DI FILTRATION WITH EC MONITOR, 120 GALLON PRESSURE TANK. REFER TO PIPING DIAGRAM N/P3.1 FOR TYPICAL CONNECTIONS.	---	3/4"	---	---
DI-2	DIONIZED WATER WATER FAUCET - KEWAUNEE MODEL W-0337-00 DECK MOUNTED FAUCET WITH 8" SPREAD RIGID GOOSENECK, REMOVABLE STRAIGHT SERRATED HOSE CONNECTOR, DISC TYPE VALVE, AND 1/2" DI WATER CONNECTION WITH SHUT-OFF VALVE BELOW COUNTER. COORDINATE FAUCET LOCATION WITH OTHER FAUCETS SPECIFIED WITH ADJACENT SINK WHERE APPLICABLE.	---	1/2" DI WATER	---	---
ES-1	EMERGENCY SHOWER AND EYEWASH - HEMCO HMC-16601 WITH SELF-CLOSING VALVE, 1-1/4" CW AND 1/2" HW SUPPLIES, AND PULL ROD. EYE WASH BASIN WITH STAY-OPEN VALVE AND TEMPERING VALVE. REFER TO DETAIL OP301 FOR TYPICAL INSTALLATION.	1/2"	1-1/4"	---	---
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 KP3.1 FOR TYPICAL INSTALLATION.	---	1/2"	2"	2"
FD-2	6" FLOOR DRAIN - ZURN Z-415-N WITH 6" Dia. NICKEL-BRONZE STRAINER AND 4" TAIL PIECE DOWN TO FRENCH DRAIN RECEIVING TANK. REFER TO DETAIL AP3.1 FOR TYPICAL INSTALLATION OF FRENCH DRAIN.	---	---	4"	---
FS-1	2" FLOOR SINK - ZURN Z-1900-2 WITH HALF GRATE, WHITE ENAMEL FINISH, DOME STRAINER AND 2" P-TRAP.	---	---	2"	2"
FS-2	2" FLOOR SINK - ZURN Z-1900-3 WITH THREE-QUARTER GRATE, WHITE ENAMEL FINISH, DOME STRAINER AND 2" P-TRAP.	---	---	2"	2"
FS-3	4" FLOOR SINK - ZURN Z-1900-2 WITH THREE-QUARTER GRATE, WHITE ENAMEL FINISH, DOME STRAINER AND 4" P-TRAP.	---	---	4"	2"
HB-1	EXTERIOR HOSE BIBB - ZURN Z-1310 "ECOLOTROL" WITH VACUUM BREAKER AND REMOVABLE CHROME TEE HANDLE. LENGTH TO SUIT WALL THICKNESS.	---	3/4" (HARD)	---	---
HB-2	RECESSED INTERIOR HOSE BIBB - ZURN MODEL ZA-1335 WALL HYDRANT WITH RECESSED BOX WITH LOCKING COVER, REMOVABLE TEE HANDLE AND VACUUM BREAKER. REFER TO DETAIL B/P1.2 FOR TYPICAL INSTALLATION.	---	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 FLOW. 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-8940 WIRE RIM GUARD, K-9142 PERFORATED STRAINER AND 2" DEEP SEAL P-TRAP. MOUNT T&S B-0674-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	WALL MOUNTED LAVATORY - KOHLER K-2032 "GREENWICH" WITH K-7715 GRID STRAINER, K-15982-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 RECIRC. PUMP - B&G SERIES LR-20BF "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	DOUBLE COMPARTMENT SINK - ELKAY MODEL LR-3319 STAINLESS STEEL SINK WITH MOEN 7200 SINGLE LEVER HANDLE, (2) LK-99 HEAVY DUTY STRAINER, AND 1/2" STOPS.	1/2"	1/2" (HARD)	1-1/2"	1-1/2"
S-2	DOUBLE COMPARTMENT LAB SINK - ELKAY MODEL ELUH311810DBG STAINLESS STEEL UNDERMOUNT SINK WITH KEWAUNEE MODEL W-0337-00 DECK MOUNTED FAUCET WITH 8" SPREAD RIGID GOOSENECK, REMOVABLE STRAIGHT SERRATED HOSE CONNECTOR, DISC TYPE VALVE, AND 1/2" DI WATER CONNECTION WITH SHUT-OFF VALVE BELOW COUNTER.	1/2"	1/2" DI WATER	1-1/2" TO FLOOR SINK	---

Engineered  
Systems  
Associates

1355 EAST CENTER  
POCATELLO, IDAHO 83201  
PHONE: (208) 233-0901  
FAX: (208) 233-0920  
EMAIL: [esa@engsystems.com](mailto:esa@engsystems.com)  
ESA JOB NUMBER: 21034

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

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