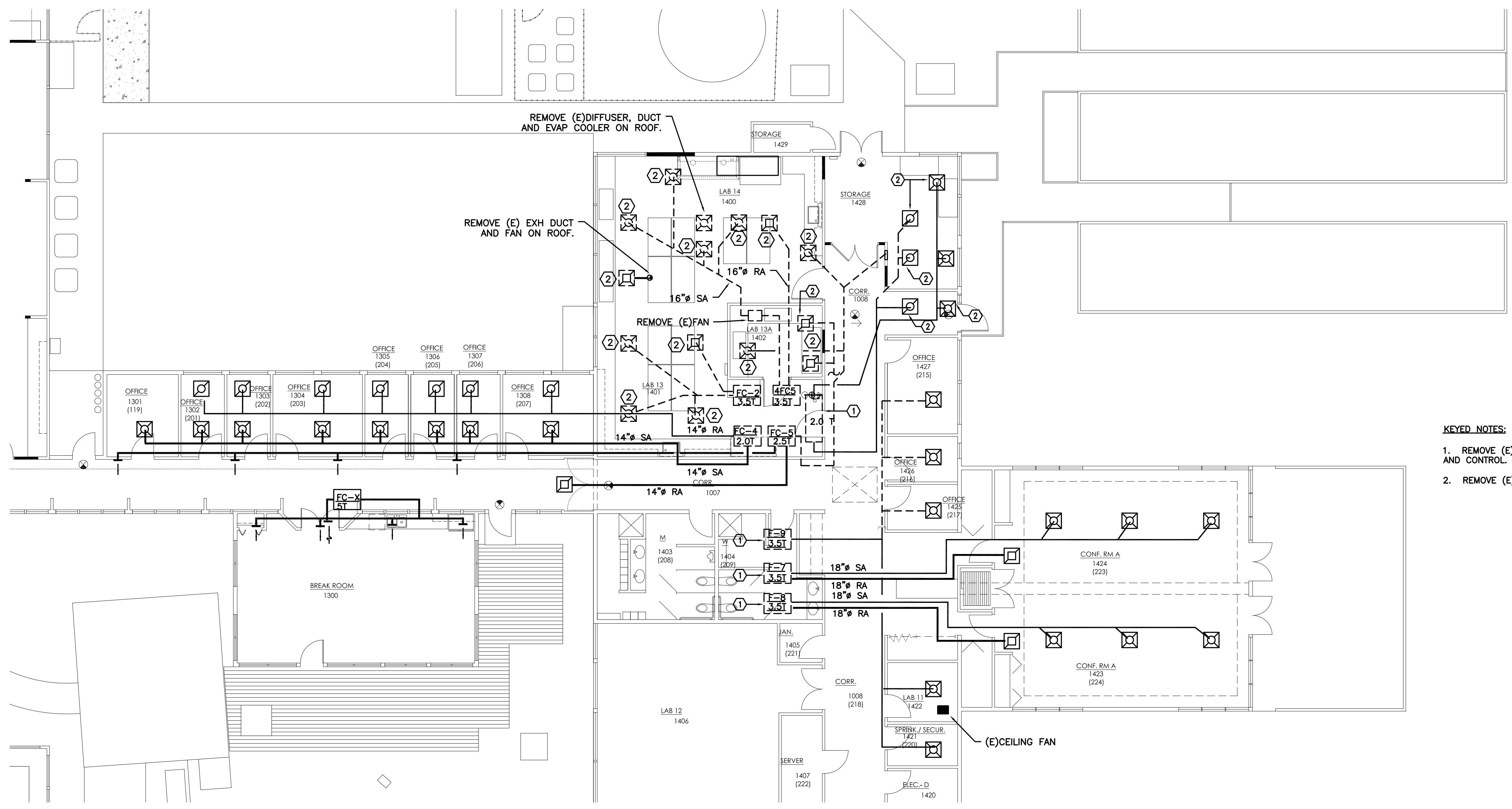


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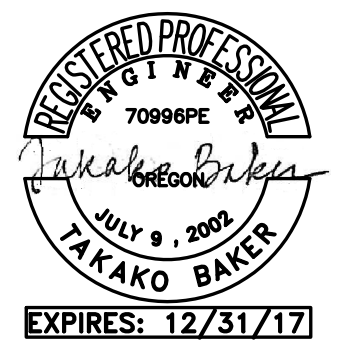
PLAN REVIEW APPROVAL STAMP



- KEYED NOTES:**
1. REMOVE (E) FAN COIL, ELECTRIC HEATER, AND CONTROL.
  2. REMOVE (E) DIFFUSER/GRILLE.

**1** MECHANICAL DEMO PLAN  
**M1.0** SCALE: 1/8"=1'-0"

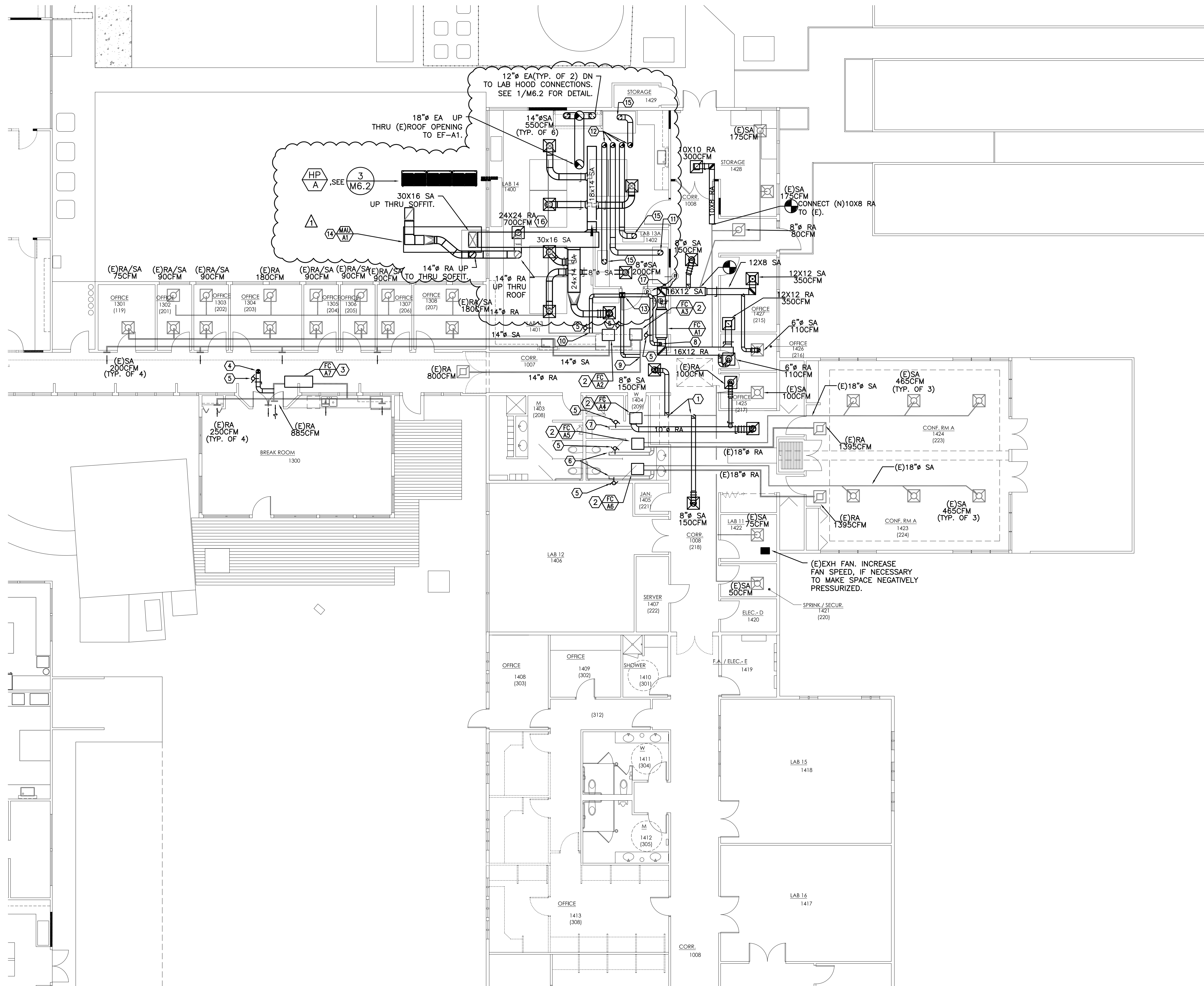
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PLAN REVIEW APPROVAL STAMP

**KEYED NOTES:**

1. CONNECT (N)8" SA TO (E).
2. CONNECT (E)SA/RA MAINS TO NEW UNIT.  
SEE FOR DETAIL.
3. CONNECT (E)SA/RA MAINS TO NEW UNIT.  
SEE FOR DETAIL.
4. 8" OSA UP THRU ROOF, SEE .
5. 2-POSITION CONTROL DAMPER TO OPEN/CLOSE WITH FAN COIL OPERATION.
6. (E)6" OSA DUCT TO (E)RA PLENUM. SET DAMPER TO 96 CFM. INSTALL A 2-POSITION CONTROL DAMPER (IF NOT EXISTING) TO OPERATE WITH FAN COIL UNIT OPERATION.
7. CONNECT (E)6" OSA DUCT TO NEW RA DUCT. SET OSA DAMPER TO 66 CFM. INSTALL A 2-POSITION CONTROL DAMPER (IF NOT EXISTING) TO OPERATE WITH FAN COIL UNIT OPERATION.
8. 6" OSA TO FC-A1 RA DUCT WITH A MANUAL BALANCING DAMPER. SET DAMPER TO 71 CFM.
9. 6" OSA TO FC-A3 RA DUCT WITH A MANUAL BALANCING DAMPER. SET DAMPER TO 30 CFM.
10. 6" OSA TO FC-A2 RA DUCT WITH A MANUAL VOLUME DAMPER. SET DAMPER TO 30 CFM.
11. 10" EXH TO FLOW SCIENCES FAN FILTER UNIT, PROVIDED BY OWNER (280 CFM.)
12. 10" EA UP THRU ROOF.
13. 10X10 INSULATED OSA DUCT UP THRU ROOF TO INTAKE HOOD.
14. SEE FOR INSTALLATION DETAIL.
15. 10" EXH TO LAMINAR FLOW HOOD, PROVIDED BY OWNER. (350 CFM.)
16. BALANCE RA AIRFLOW TO -0.05" W.G. SPACE PRESSURE.
17. RELOCATE (E)MAGNETIC PRESSURE GAUGE TO OUTSIDE NEW DOOR TO LAB 13A.

**GENERAL NOTES:**

1. SEE SHEET M5.1 FOR CONTROLS.
2. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS TO ENSURE EQUIPMENTS ARE INSTALLED WITH PROPER MAINTENANCE CLEARANCE.
3. BALANCE ALL EXISTING AND NEW SUPPLY DIFFUSERS, RA GRILLES AND EXHAUST TO AIRFLOW SHOWN.

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EXPIRES: 12/31/17



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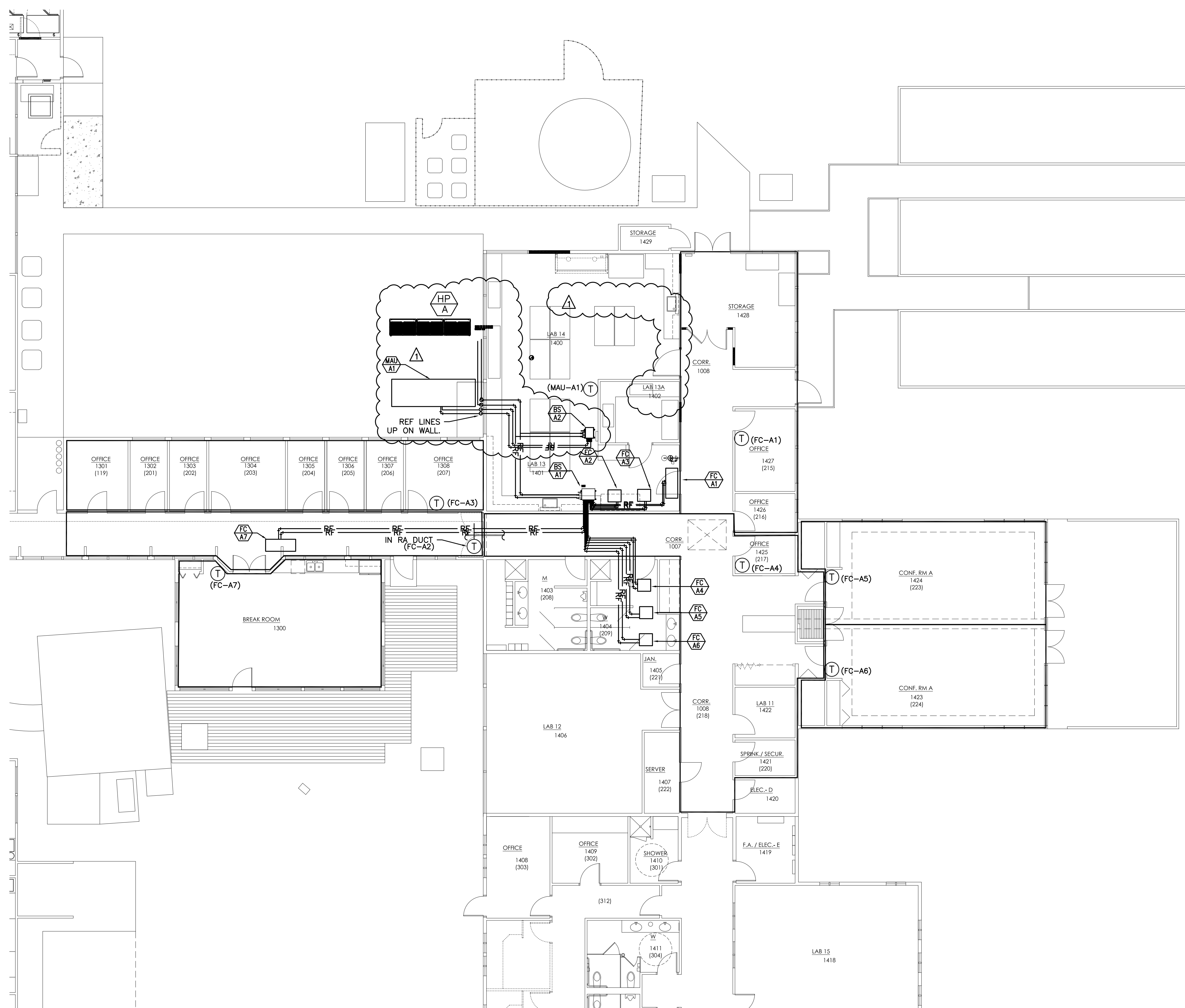
**MECHANICAL FLOOR PLAN**  
SCALE: 1/8"=1'-0"

MECHANICAL FLOOR PLAN

**M2.0**

PLOT DATE: May 3, 2017

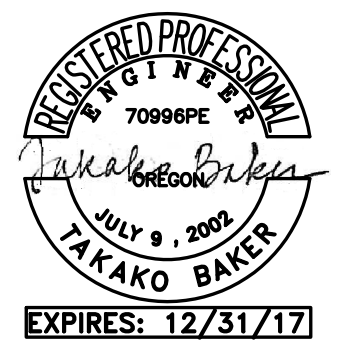
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PLAN REVIEW APPROVAL STAMP

- SHEET NOTES:**
1. REFRIGERANT PIPING SHOWN HERE ARE FOR REFERENCE ONLY. VRY MANUFACTURER TO PROVIDE REFRIGERANT PIPING DIAGRAM SHOWING EXACT ROUTING AND SIZING TO EACH INDOOR UNIT AND TO BRANCH CONTROLLER WITH THEIR SHOP DRAWING.
  2. CONTRACTOR SHALL COORDINATE LOCATION OF FAN COILS, ETC. WITH LIGHT FIXTURES AND OTHER TRADES TO ENSURE PROPER CLERANCE FOR MAINTENANCE.
  3. FOR ALL REPLACEMENT UNITS (FC'S) CONNECT CONDENSATE DRAIN FROM UNIT TO (E)DRAIN LINES FROM REMOVED UNITS.

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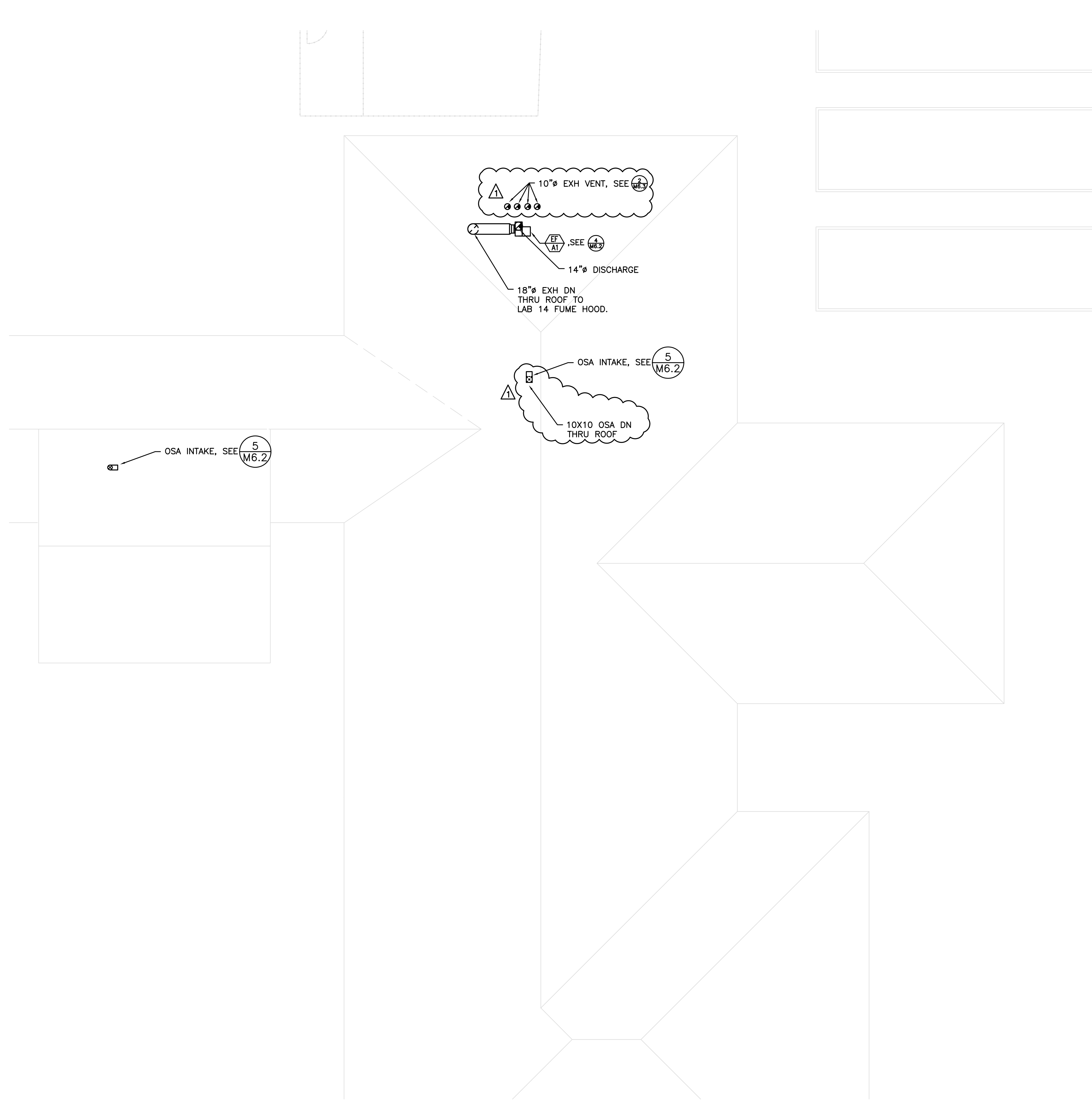
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**1** MECHANICAL ZONING /PIPING PLAN  
**M2.1** SCALE: 1/8"=1'-0"

MECHANICAL ZONING/  
PIPING PLAN

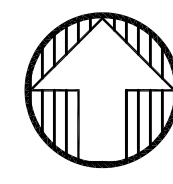
**M2.1**



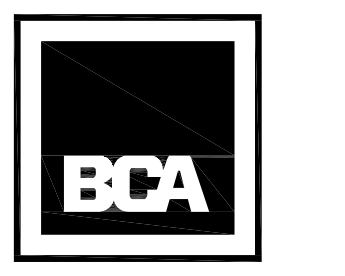
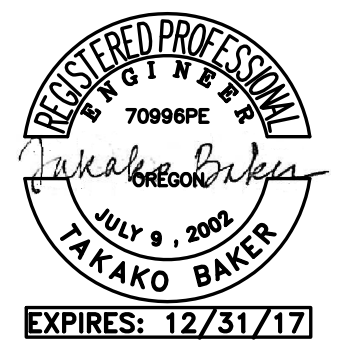
PLAN REVIEW APPROVAL STAMP

**GENERAL NOTES:**

1. SEE SHEET M5.1 FOR CONTROLS.
2. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS TO ENSURE EQUIPMENTS ARE INSTALLED WITH PROPER MAINTENANCE CLEARANCE.
3. CONTRACTOR TO FIELD VERIFY THAT ALL NEW OSA INTAKES ARE LOCATED MINIMUM OF 10'-0" RADIUS FROM ANY NEW OR EXISTING PLUMBING VENTS OR EXHAUST.

 **1** MECHANICAL ROOF PLAN  
 M3.0 SCALE: 1/8"=1'-0"

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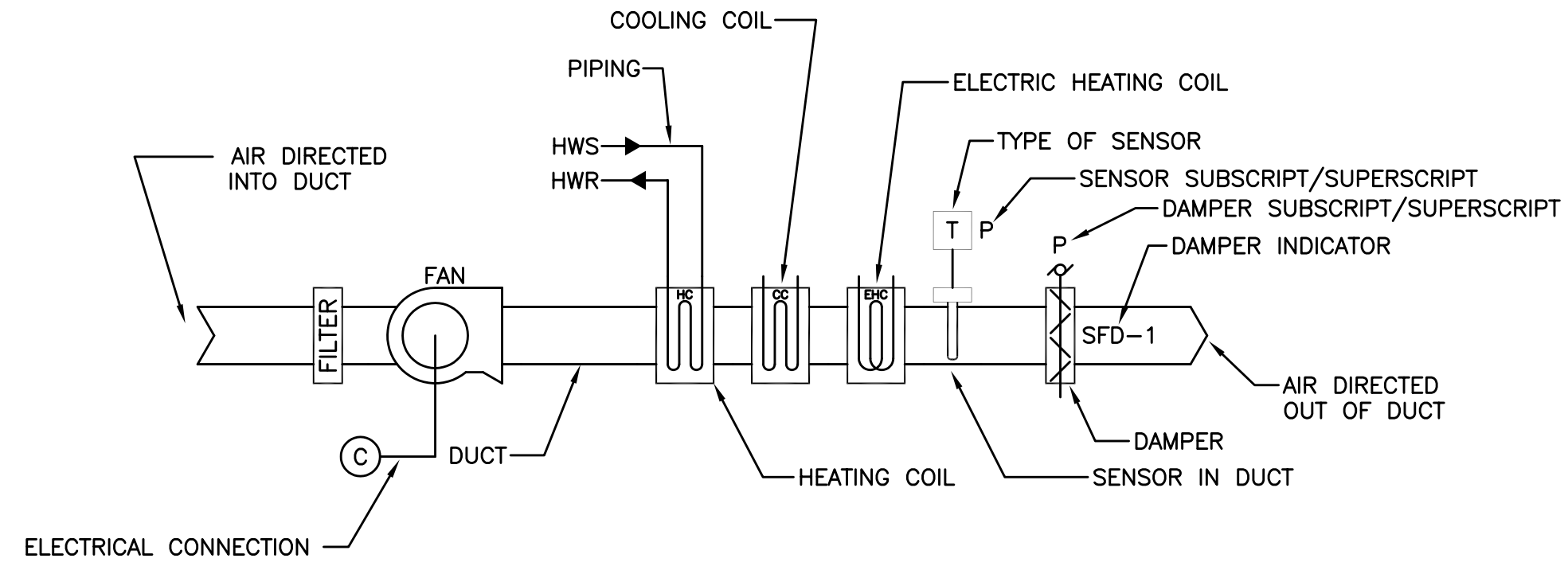
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MECHANICAL  
 ROOF PLAN

**M3.0**

PLAN REVIEW APPROVAL STAMP

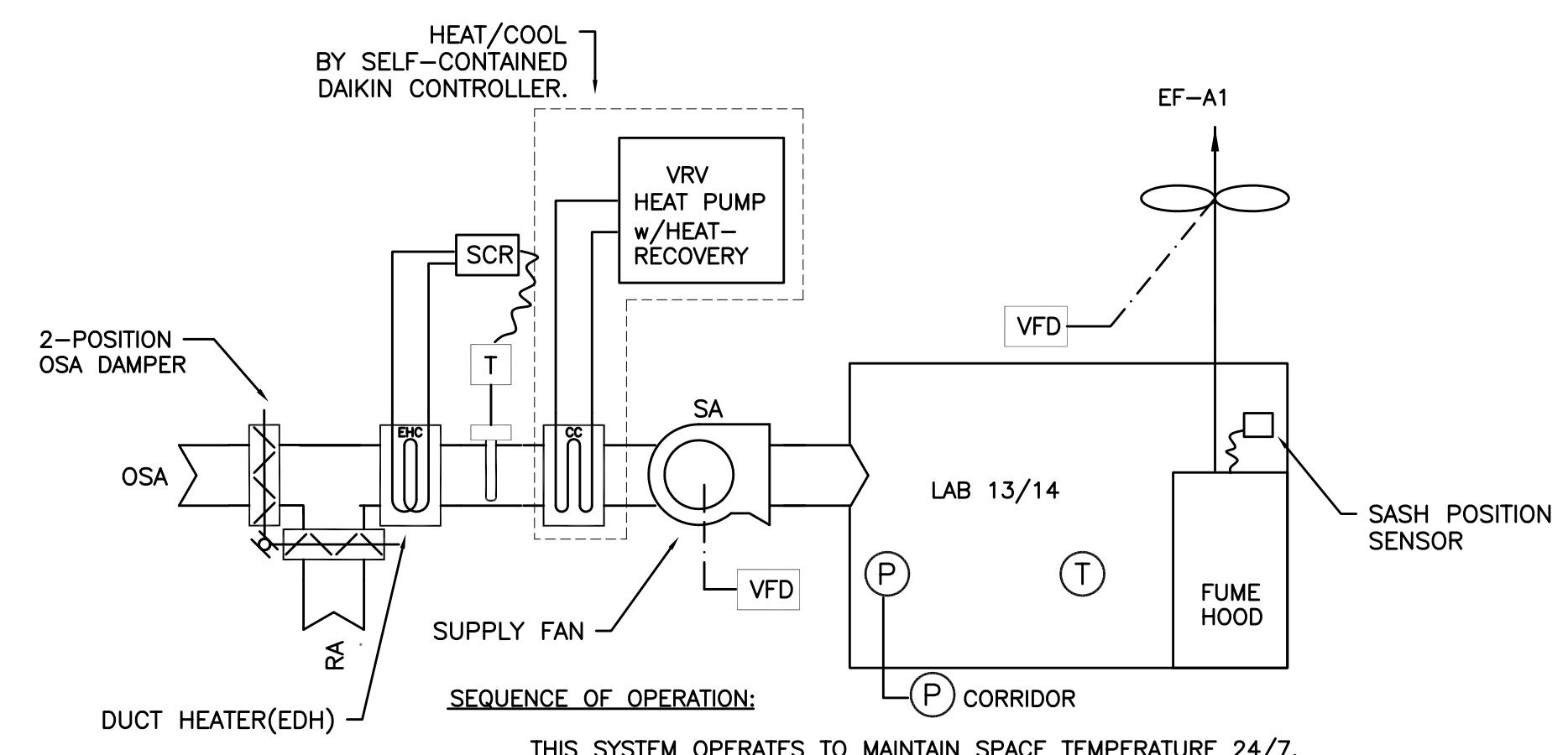


- |                                    |   |                            |
|------------------------------------|---|----------------------------|
| (T) SPACE TEMPERATURE SENSOR       | (CT) CURRENT TRANSFORMER                          | (CAPPED LINE)              |
| (P) SPACE PRESSURE SENSOR          | (M) MANOMETER                                     | (PUMP)                     |
| (H) SPACE HUMIDITY SENSOR          | (VFD) VARIABLE FREQUENCY DRIVE                    | (FLOW DIRECTION INDICATOR) |
| (DP) DIFFERENTIAL PRESSURE SENSOR  | (C) CONTACTOR/STARTER                             | (MULTI VALVE)              |
| (H) HUMIDITY SENSOR                | (MCC) MOTOR CONTROL CENTER                        | (3-WAY VALVE)              |
| (T) TEMPERATURE SENSOR             | (SD) SMOKE DETECTOR                               | (2-WAY VALVE)              |
| (LL) TEMPERATURE LOW LIMIT SENSOR  | (F) FLOW SENSOR (WATER OR AIR)                    |                            |
| (FL) FLUID LEVEL SENSOR            | (P) DUCT PRESSURE SENSOR                          |                            |
| (AQ) AIR QUALITY SENSOR            | (CO2) CO2 SENSOR @ 48" AFF UNLESS NOTED OTHERWISE |                            |
| (OS) OCCUPANCY SENSOR (SEE DIV 26) | (FS) FLOW SWITCH                                  |                            |

**LEGEND**

- EQUIPMENT ABBREVIATIONS:**
- P - PUMP
  - SP - SUMP PUMP
  - BP - BOOSTER PUMP
  - HWP - HEATING WATER PUMP
  - CHP - CHILLED WATER PUMP
  - F - CONDENSING WATER PUMP
  - CWP - CONDENSING WATER PUMP
  - CSP - COOLING TOWER SUMP PUMP
  - HWRP - DOMESTIC HOT WATER RECIRCULATION
  - VFD - VARIABLE FREQUENCY DRIVE
  - CT - CONTACTOR
  - CC - CONTROL COMPRESSOR
  - CH - CHILLER
  - B - BOILER
  - EF - EXHAUST FAN
  - RF - RETURN/RELIEF FAN
  - AH - AIR HANDLER
  - VAV - VARIABLE AIR VOLUME DAMPER BOX
  - AD - AREA DAMPER
  - SD - SMOKE DAMPER
  - SFD - FIRE SMOKE COMBINATION DAMPER
  - H - HUMIDIFIER
  - V - VALVE
  - WH - WATER HEATER
  - BAS - BUILDING AUTOMATION SYSTEM

- PLUMBING ABBREVIATIONS:**
- HWS - HEATING WATER SUPPLY
  - HWR - HEATING WATER RETURN
  - HW - DOMESTIC HOT WATER
  - CW - DOMESTIC COLD WATER
  - GPM - GALLONS PER MINUTE
  - DB - DOUBLE VALVE OPERATOR
- AIR FLOW ABBREVIATIONS:**
- OSA - OUTSIDE AIR
  - RA - RETURN AIR
  - SA - SUPPLY AIR
  - EXH - EXHAUSTED AIR



**SEQUENCE OF OPERATION:**

THIS SYSTEM OPERATES TO MAINTAIN SPACE TEMPERATURE 24/7. COORDINATE SCHEDULE AND OFF HOURS TEMP SET POINT WITH OWNER.

DUCT HEATER (EDH): OPERATE TO MAINTAIN 55 DEGREE F DISCHARGE TEMPERATURE. WHEN OSA < 50°F.

CONTROL DAMPERS: MODULATE PER ECONOMIZER SEQUENCE OF OPERATION.

EF-A1: OPERATE @ 100% DESIGN (1800CFM) WHEN HOOD SASH IS OPEN. OPERATE @ 50% DESIGN (900CFM) WHEN HOOD SASH IS CLOSED.

SUPPLY FAN: SUPPLY FAN TO BE CONTROLLED TO MAINTAIN SPACE PRESSURE @ -0.05 W.G.

1 LAB 13 & 14  
 M5.1 SCALE: N/A

POINT DESCRIPTION	INPUT		OUTPUT		ALARM
	DIGITAL	ANALOG	DIGITAL	ANALOG	
OSA/RA DAMPERS					X
DUCT HEATER				X	
PRE-HEAT DISCHARGE TEMP		X			
SASH POSITION		X			
SA FAN VFD SPEED				X	
EF-A1 VFD SPEED				X	
SPACE PRESSURE		X			

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# MECHANICAL LEGEND

	SUPPLY AIR DIFFUSER	AF	ABOVE FINISH FLOOR
	RETURN AIR GRILLE	AHU	AIR HANDLING UNIT
	EXHAUST AIR GRILLE	B.D.	BOTTOM OF DUCT
	PERFORATED RETURN AIR PANEL	BHP	BRAKE HORSEPOWER
	DIRECTIONAL AIR FLOW	BTU	BRITISH THERMAL UNITS
	MANUAL VOLUME DAMPER	CFM	CUBIC FEET PER MINUTE
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	CONN.	CONNECTION
	RETURN AIR DUCT UP & DOWN	CONT.	CONTINUATION
	EXHAUST AIR DUCT UP & DOWN	CW	DOMESTIC COLD WATER
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	DB	DRY BULB
	RETURN AIR DUCT UP & DOWN	DIA.	DIAMETER
	EXHAUST AIR DUCT UP & DOWN	DIST.	DISTRIBUTION
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	EA	EXHAUST AIR
	RETURN AIR DUCT UP & DOWN	EDB	ENTERING DRY BULB TEMPERATURE
	EXHAUST AIR DUCT UP & DOWN	EWB	ENTERING WET BULB TEMPERATURE
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	EWT	ENTERING WATER TEMPERATURE
	RETURN AIR DUCT UP & DOWN	FF	FINISH FLOOR
	EXHAUST AIR DUCT UP & DOWN	FIXT.	FIXTURE
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	FPM	FEET PER MINUTE
	RETURN AIR DUCT UP & DOWN	FPS	FEET PER SECOND
	EXHAUST AIR DUCT UP & DOWN	FT.	FEET / FOOT
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN	GA.	GAUGE
	RETURN AIR DUCT UP & DOWN	GPM	GALLONS PER MINUTE
	EXHAUST AIR DUCT UP & DOWN	H	HEIGHT
	VAV TERMINAL UNIT	H	HORSEPOWER
	WT TERMINAL UNIT	I.D.	INSIDE DIAMETER
	EXISTING	IN.	INCHES
	CONNECT TO EXISTING	L	LENGTH
	THERMOSTAT OR TEMP. SENSOR	LBS.	POUNDS
	NOTE	LDB	LEAVING DRY BULB
	EQUIPMENT DESIGNATOR	LWB	LEAVING WET BULB
	BALL VALVE	LWT	LEAVING WATER TEMPERATURE
	GATE VALVE	MAX.	MAXIMUM
	CHECK VALVE	MBH	THOUSANDS OF BTUs PER HOUR
	BALANCING VALVE	MIN.	MINIMUM
	THERMOMETER	NC	NOISE CRITERIA
	DIRECTION OF FLOW	N.C.	NORMALLY CLOSED
	PUMP	N.I.M.	NOT IN MECHANICAL
	STRAINER	NO.	NUMBER
	PRESSURE GAUGE	N.O.	NORMALLY OPEN
	PETE'S PLUG	O.A.	OUTSIDE AIR
	DOUBLE CHECK ASSEMBLY	PSI	POUNDS PER SQUARE INCH
	PRESSURE REDUCING VALVE	P/T	PRESSURE TEMPERATURE
	UNION	R.A.	RETURN AIR
	2-WAY CONTROL VALVE	RECT.	RECTANGULAR
	3-WAY CONTROL VALVE	REQ'D	REQUIRED
	CAP	S.A.	SUPPLY AIR
	SMOKE DETECTOR	S.P.	STATIC PRESSURE
	MOTORIZED DAMPER	SQ.	SQUARE
		TEMP.	TEMPERATURE
		TYP.	TYPICAL
		VAV	VARIABLE AIR VOLUME
		W	WIDTH
		WB	WET BULB
		WPD	WATER PRESSURE DROP
		Ø	DIAMETER
			(E) EXISTING
			(D) DEMOLISH
			NEW WORK
			HWS (HWS) HEATING WATER SUPPLY
			HWR (HWR) HEATING WATER RETURN
			FIRE DAMPER
			FIRE / SMOKE DAMPER
			SMOKE DAMPER
			SEISMIC BRACING
			LATERAL BRACING
			LONGITUDINAL BRACING
			LONGITUDINAL & LATERAL BRACING

# HEAT PUMP(VRF)

OUTDOOR MARK NUMBER	HP A
SYSTEM	VRV HEAT PUMP W/HEAT RECOVERY
TYPE	
RATED COOLING CAPACITY	334,000 BTUH
RATED HEATING CAPACITY	376,000 BTUH
EFFICIENCY I.E.P.R.	17.90
EFFICIENCY /COP @ 47°F	3.3
REFRIGERANT	410 A
MAX PIPING LENGTH	230
MAX PIPING HEIGHT	49.0
VOLTS-PHASE	208/3
MCA/MOP	129/150
COMPRESSOR	INVERTER
WEIGHT	2109
BASIS OF DESIGN - DAIKIN	REYQ360TJU

# EXHAUST FANS

MARK NUMBER	EF A1
SYSTEM	EXP-PROOF UTILITY SET
TYPE	
SYSTEM	LAB 3-HOOD
CFM	1800*
TOTAL SP. (IN H2O)	0.75"
RPM	1557
MOTOR WATTS OR HP	3/4 HP
CONTROLLED BY	SASH SENSOR**
INTERLOCK WITH	-
FAN SPEED CONTROLLER	YES_VFD**
WHEEL TYPE	BI
BACK DRAFT DAMPER	YES
ISOLATION	SPRING RAILS
DESIGN WEIGHT (LBS)	185
MAX. SONES	18.6
POWER (VOLTS/PHASE/HZ)	208/3
BASIS OF DESIGN:	TWIN CITY BCV-135

\* - FAN TO RUN AT 50% SPEED WHEN HOOD IS CLOSED AND 100% WHEN SASH IS OPEN.

# OUTDOOR AHU

MARK NUMBER	MAU A1
SERVICE	LAB 13/14
HEAT PUMP	HP-A
TYPE	OUTDOOR
AIRFLOW(CFM)**	3500 CFM
OUTSIDE AIR (CFM)	2800 CFM
ESP ("W.G.)	1.0"
FAN HP/BHP	3/2.83
FAN RPM	1828
VFD (MODEL ABB ACH550)	YES
FILTER	2" MERV 8/MERV 13
EAT (DB/WB)	88.4/63
LAT (DB/WB)	51/48
SENSIBLE/TOTAL (MBH)	140/140 MBH
EAT/LAT (DB)	50/102
CAPACITY (MBH)	197 MBH
TYPE	PRE-HEAT
CONTROL	SCR*
POWER (VOLTS/PHASE/HZ)	208/3
MOP/MCA	200/184.24
TOTAL UNIT WEIGHT	1200 #
BASIS OF DESIGN: THERMAL	HBC-4-HS

\* CONTROL TO MAINTAIN DISCHARGE TEMP @ 55°F WHEN OSA < 50°F.  
 \*\* NON-DAIKIN VRV INDOOR UNIT.  
 \*\*\* PROVIDE DAIKIN "AHU INTEGRATION KIT" FOR CONTROL OF THIS UNIT.  
 \*\*\*\* SEE SEQUENCE OF OPERATION FOR FAN CONTROL.

# BRANCH SELECTOR BOX

MARK NUMBER	BS A1	BS A2
TYPE	MULTI PORT	MULTI PORT
VRV SYSTEM	HP-A	HP-A
MAX. CONNECT LOAD	290,000 BTUH	144,000 BTUH
HEIGHT	11.75"	11.75"
WIDTH	19"	15"
LENGTH	22"	19"
WEIGHT	70	50
POWER VOLTS/HZ/PHASE	208-230/60/1	208-230/60/1
MCA	0.80	0.40
MOP	15	15
CONDENSATE	NONE	NONE
DAIKIN MODEL	BSQ054TVJ	BSQ054TVJ
# OF PORTS	8	4
HEAT RECOVERY	YES	YES

# VRV INDOOR UNITS

TAG #	TYPE	INSTALLATION	Heat Pump Unit	BOD: DAIKIN	Airflow (CFM)	Outside Air (CFM)	ESP ("W.G.)	Rated TOTAL Cooling (BTUH)	Rated Heating (BTUH)	AUX HEAT (KW)	Weight (LBS)	Elect. Cal V/PH	MCA/MOCP	MOTOR HP	Notes
FC-A1	AHU	HORIZONTAL	HP-A	FXTQ30	960	71	0.50"	30,000	34,000	10	150	208/1	54.9/60	3/4	1
FC-A2	AHU	VERTICAL	HP-A	FXTQ30	885	30	0.50"	30,000	34,000	10	150	208/1	54.9/60	3/4	1
FC-A3	AHU	VERTICAL	HP-A	FXTQ24	800	30	0.50"	24,000	27,000	8	150	208/1	46.5/50	3/4	1
FC-A4	AHU	VERTICAL	HP-A	FXTQ18	550	96	0.50"	18,000	20,000	5	125	208/1	29.9/30	1/2	1
FC-A5	AHU	VERTICAL	HP-A	FXTQ42	1395	66	0.50"	42,000	47,000	10	170	208/1	57/60	3/4	1
FC-A6	AHU	VERTICAL	HP-A	FXTQ42	1395	66	0.50"	42,000	47,000	10	170	208/1	57/60	3/4	1
FC-A7	AHU	HORIZONTAL	HP-A	FXTQ30	1000	0	0.50"	30,000	34,000	10	150	208/1	54.9/60	3/4	1

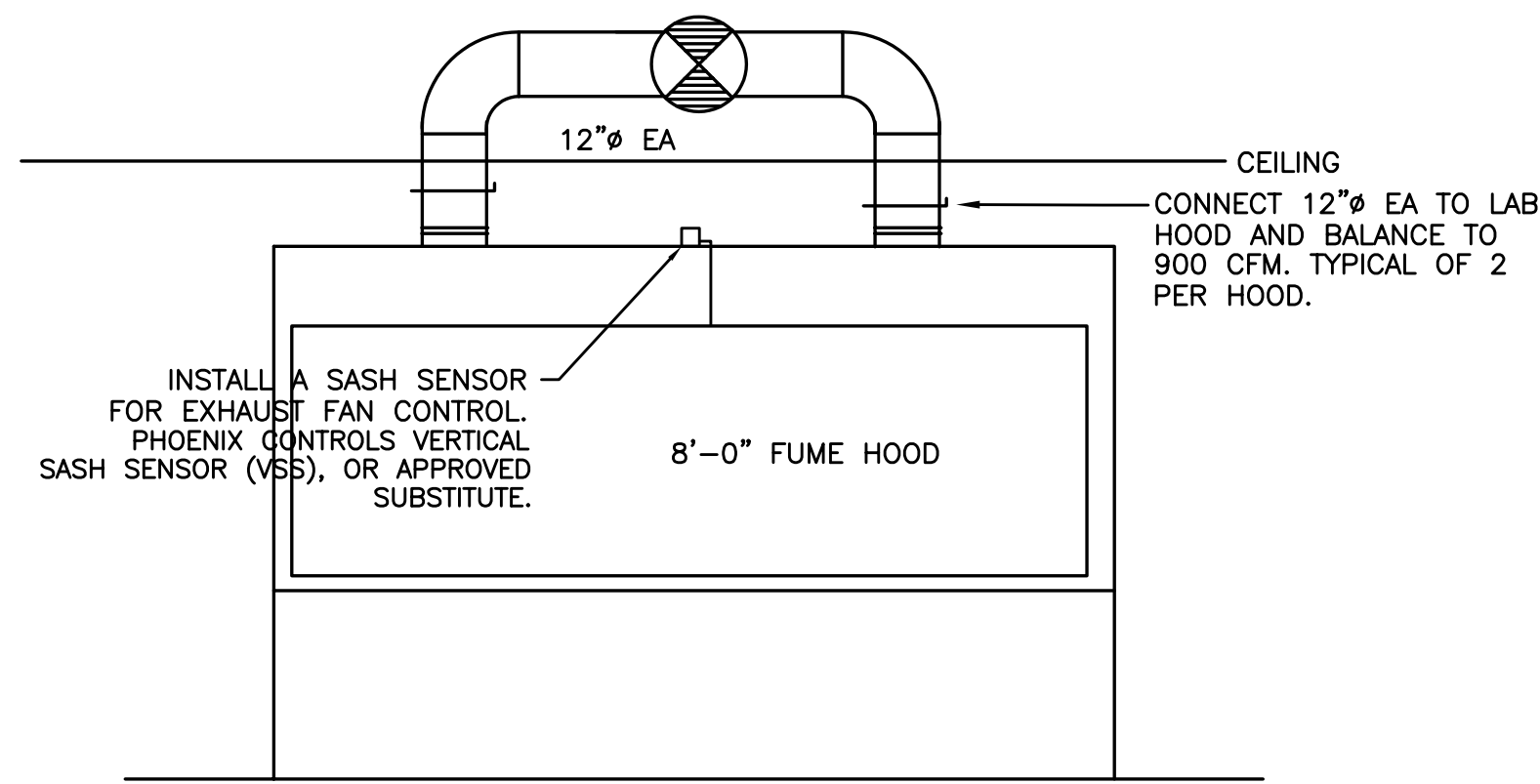
Notes  
 1. CONNECT OSA DUCT TO RA PLENUM

# VENTILATION AIR SCHEDULE

ROOM NUMBER AND NAME	AREA (SQ. FT.)	OCCUPANT LOAD (#/1000 SQ. FT.)	NUMBER OF OCCUPANTS	OUTSIDE AIR REQUIREMENT (CFM/P)	OUTSIDE AIR REQUIREMENT (CFM/SQ FT.)	OUTSIDE AIR REQUIRED (CFM)	ZONE OSA (CFM)	SUPPLY AIR (CFM)	PRIMARY OSA FRACTION	RETURN AIR (CFM)	EXHAUST AIR (CFM)	Zone Ventilation Efficiency	Corrected OSA CFM	AIR SYSTEMS	
	Az	Pz	Rp	Ra	Vbz	Ez	Voz	Vpz	Zp		Evz				
1428 SHIPPING/RECEIVING	250	0	0	0	0.12	30	1.0	30	0.09	350	0	0.99	31.15	FC-1A	
1008 CORRIDORS	275	0	0	0	0.06	17	1.0	17	0.11	150	0	0.96	17.13	FC-1A	
1427 OFFICE	115	5	1	5	0.06	12	1.0	12	0.03	350	0	1.04	12.35	FC-1A	
1426 OFFICE	115	5	1	5	0.06	12	1.0	12	0.11	110	0	0.97	12.35	FC-1A	
<b>TOTAL</b>	<b>755</b>	<b>2</b>	<b>2</b>	<b>70.3</b>	<b>70.3</b>	<b>960</b>	<b>1.0</b>	<b>960</b>	<b>0</b>	<b>960</b>	<b>0</b>	<b>1.0</b>	<b>73.0</b>		
1424 CONFERENCE	515	25	13	5	0.06	96	1.0	96	0.07	1395	0	1.00	95.9	FC-A5	
<b>TOTAL</b>	<b>515</b>	<b>13</b>	<b>13</b>	<b>96</b>	<b>96</b>	<b>1395</b>	<b>1.0</b>	<b>1395</b>	<b>0</b>	<b>1395</b>	<b>0</b>	<b>1.0</b>	<b>95.9</b>		
1423 CONFERENCE	515	25	13	5	0.06	96	1.0	96	0.07	1395	0	1.00	95.90	FC-A6	
<b>TOTAL</b>	<b>515</b>	<b>13</b>	<b>13</b>	<b>96</b>	<b>96</b>	<b>1395</b>	<b>1.0</b>	<b>1395</b>	<b>0</b>	<b>1395</b>	<b>0</b>	<b>1.0</b>	<b>95.9</b>		
1425 OFFICE	55	5	1	5	0.06	8	1.0	8	0.08	100	0	1.04	8.46	FC-A4	
1007/1008 COORRIOR	690	0	0	0	0.06	41	1.0	41	0.14	300	0	0.98	42.17	FC-A4	
1422 LAB 11	70	5	1	5	0.06	9	1.0	9	0.09	100	100	1.03	9.37	FC-A4	
1424 SPRINKLER	115	5	0	5	0.06	7	1.0	7	0.14	110	0	0.98	7.03	FC-A4	
<b>TOTAL</b>	<b>930</b>	<b>2</b>	<b>2</b>	<b>65.8</b>	<b>65.8</b>	<b>550</b>	<b>1.0</b>	<b>550</b>	<b>0</b>	<b>610</b>	<b>100</b>	<b>1.0</b>	<b>67.0</b>		
1301 OFFICE	100	5	1	5	0.06	11	1.0	11	0.15	100	0	0.88	12.44	FC-A2	
1302 OFFICE	60	5	1	5	0.06	9	2.0	4	0.05	100	0	0.98	4.86	FC-A2	
1303 OFFICE	60	5	1	5	0.06	9	3.0	3	0.03	100	0	1.00	3.24	FC-A2	
1304 OFFICE	125	5	1	5	0.06	13	4.0	3	0.02	100	0	1.01	3.53	FC-A2	
1305 OFFICE	60	5	1	5	0.06	9	5.0	2	0.02	100	0	1.01	1.95	FC-A2	
1306 OFFICE	60	5	1	5	0.06	9	6.0	1	0.02	100	0	1.01	1.62	FC-A2	
1307 OFFICE	60	5	1	5	0.06	9	7.0	1	0.01	100	0	1.02	1.39	FC-A2	
1308 OFFICE	125	5	1	5	0.06	13	8.0	2	0.01	100	0	1.02	1.77	FC-A2	
<b>TOTAL</b>	<b>650</b>	<b>8</b>	<b>8</b>	<b>79</b>	<b>27.2</b>	<b>885</b>	<b>1.0</b>	<b>885</b>	<b>0</b>	<b>800</b>	<b>0</b>	<b>0.9</b>	<b>30.8</b>		
1007 COORRIDOR	441	0	0	0	0.06	26	1.0	26	0.03	800	0	1.00	26.46	FC-A3	
<b>TOTAL</b>	<b>441</b>	<b>0</b>	<b>0</b>	<b>26.46</b>	<b>26.46</b>	<b>800</b>	<b>1.0</b>	<b>800</b>	<b>0</b>	<b>800</b>	<b>0</b>	<b>1.0</b>	<b>26.5</b>		
1300 BREAK ROOM	600	25	15	5	0.06	111	1.0	111	0.06	2000	0	1.00	111.00	FC-A7	
<b>TOTAL</b>	<b>600</b>	<b>15</b>	<b>15</b>	<b>111</b>	<b>111</b>	<b>2000</b>	<b>1.0</b>	<b>2000</b>	<b>0</b>	<b>2000</b>	<b>0</b>	<b>1.0</b>	<b>111.0</b>		
LAB13/14	1040	6	0	1*		1040	1.0	2700	3500			2150	1.00	2700	MAU-A1
LAB 13A	115	1	0	1*		115	1.0	0	0			980	1.00	0	MAU-A1
<b>TOTAL</b>	<b>1155</b>	<b>1</b>	<b>1</b>	<b>1155</b>	<b>1155</b>	<b>2700</b>	<b>1.0</b>	<b>3500</b>	<b>0</b>	<b>3130</b>	<b>1.00</b>	<b>2700</b>			

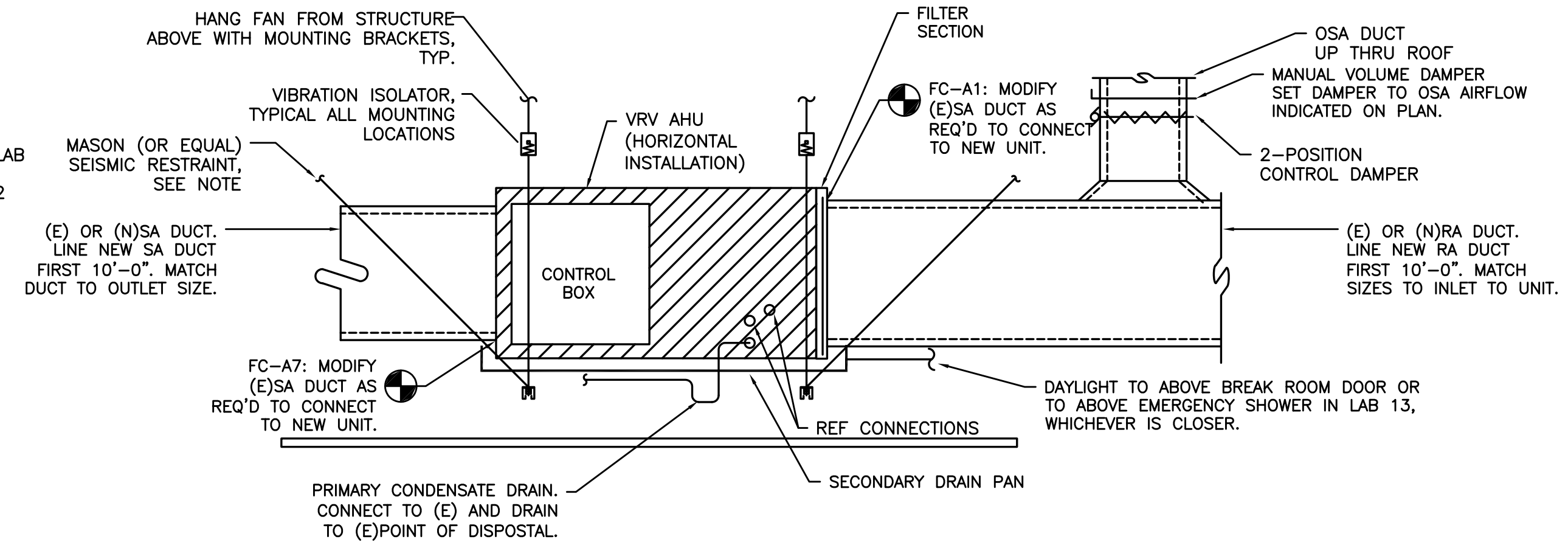
\* 1 CFM/SOFT EXHAUST REQUIRED

# AIR DISTRIBUTION DETAILS

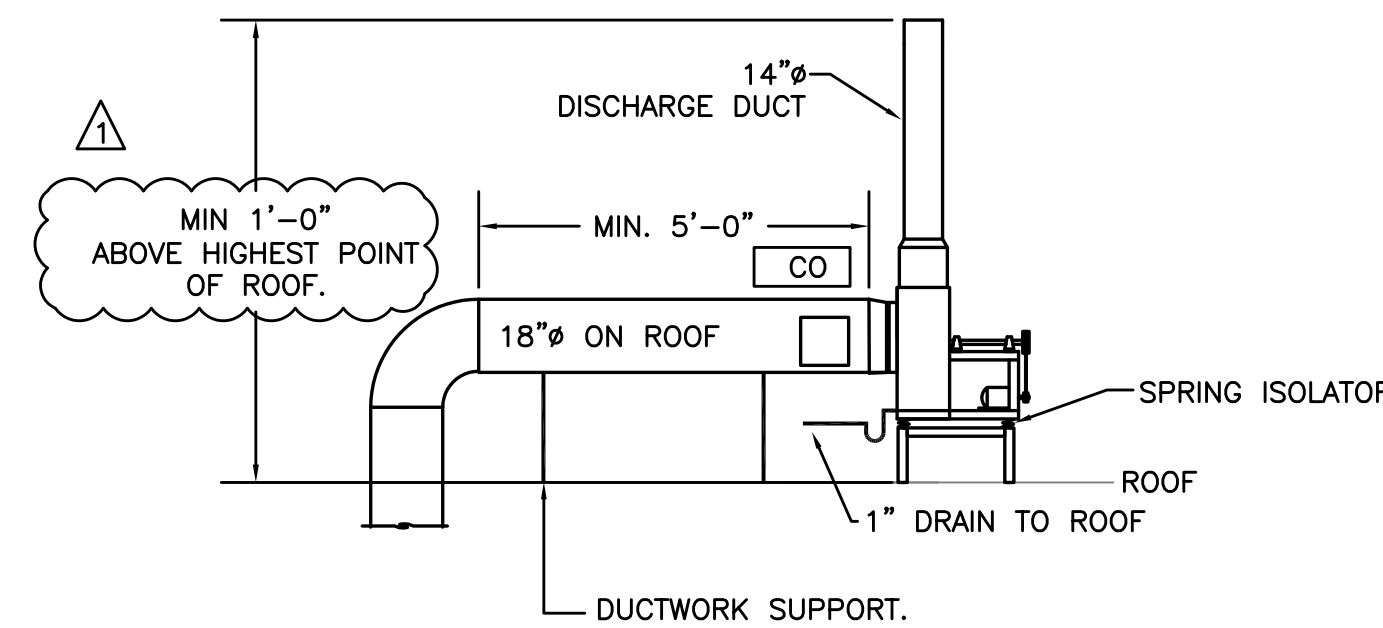
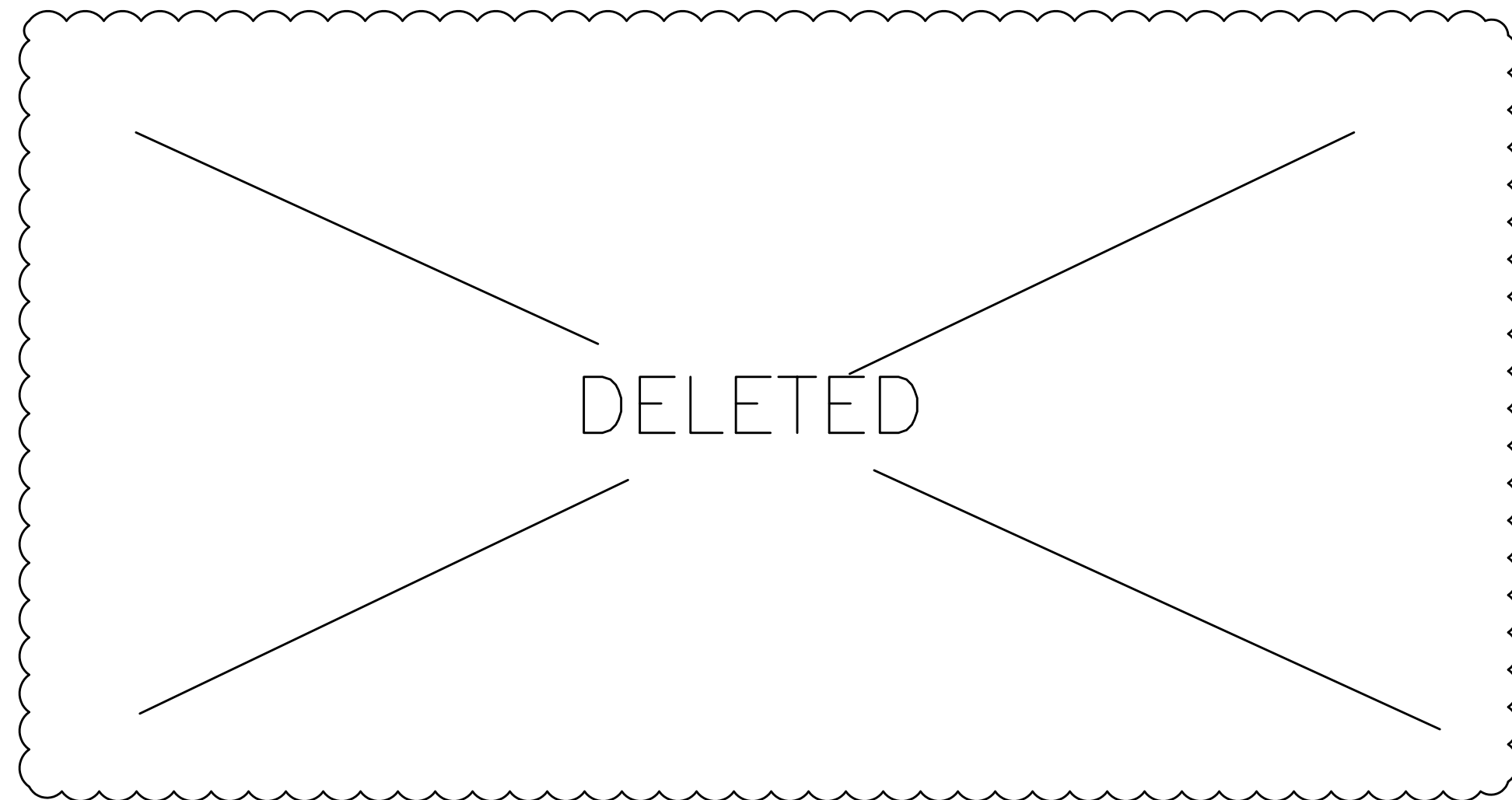


-ALL DUCTWORK TO BE WELDED 304 S.S. W/ #4 FINISH.

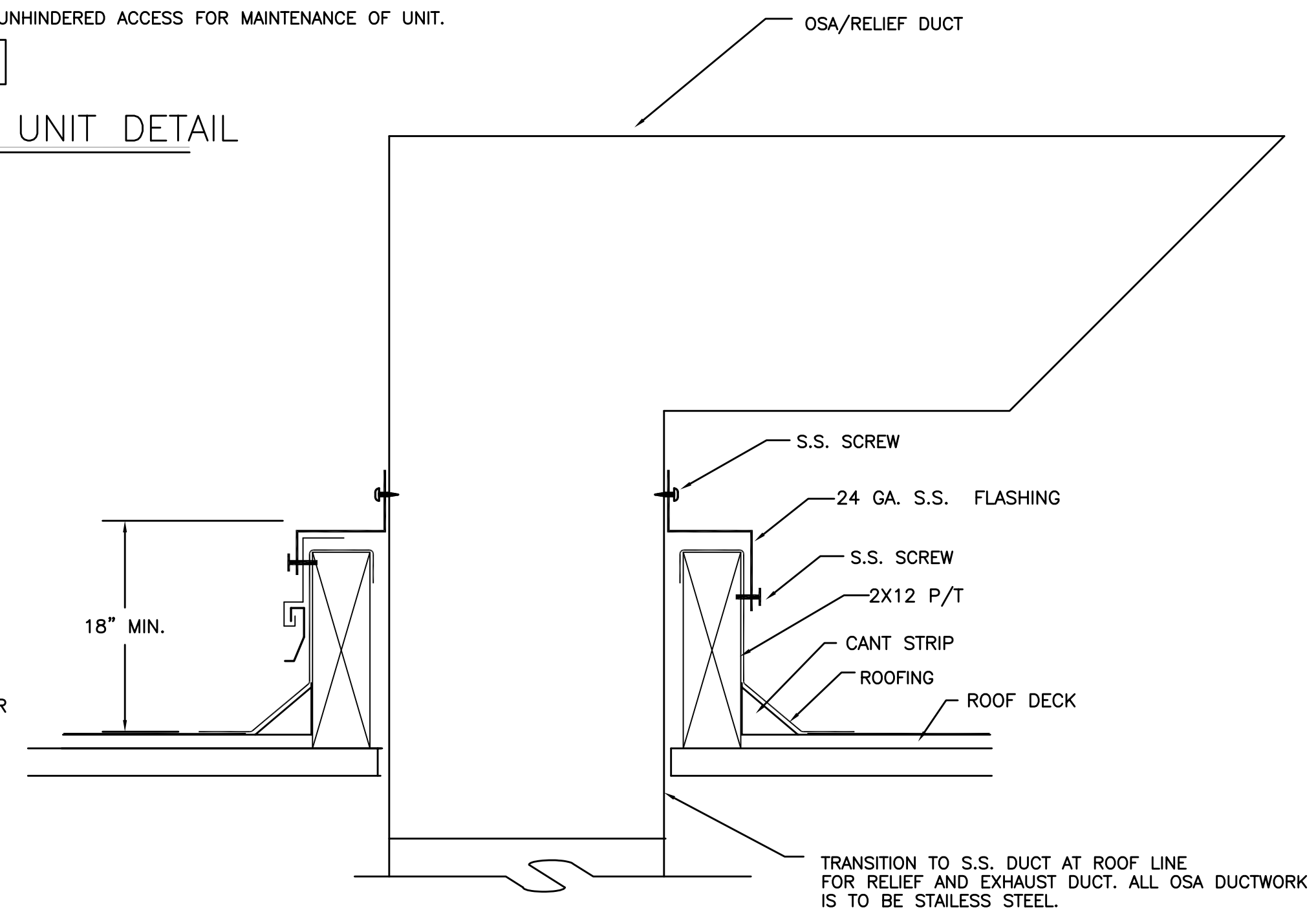
1 LAB HOOD EXHAUST  
M6.2 SCALE: DETAIL



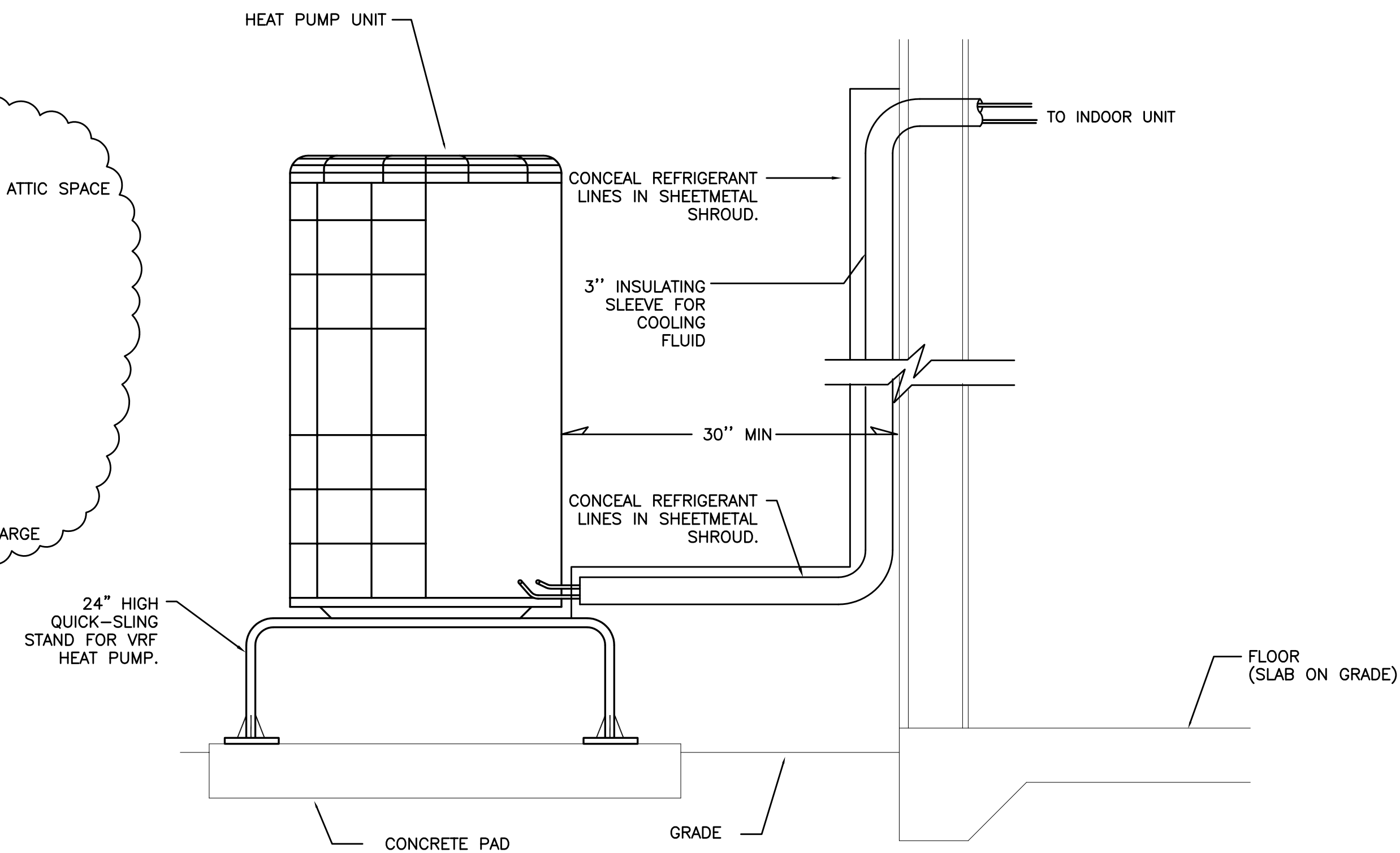
2 VRV HORIZONTAL UNIT DETAIL  
M6.2 SCALE: DETAIL



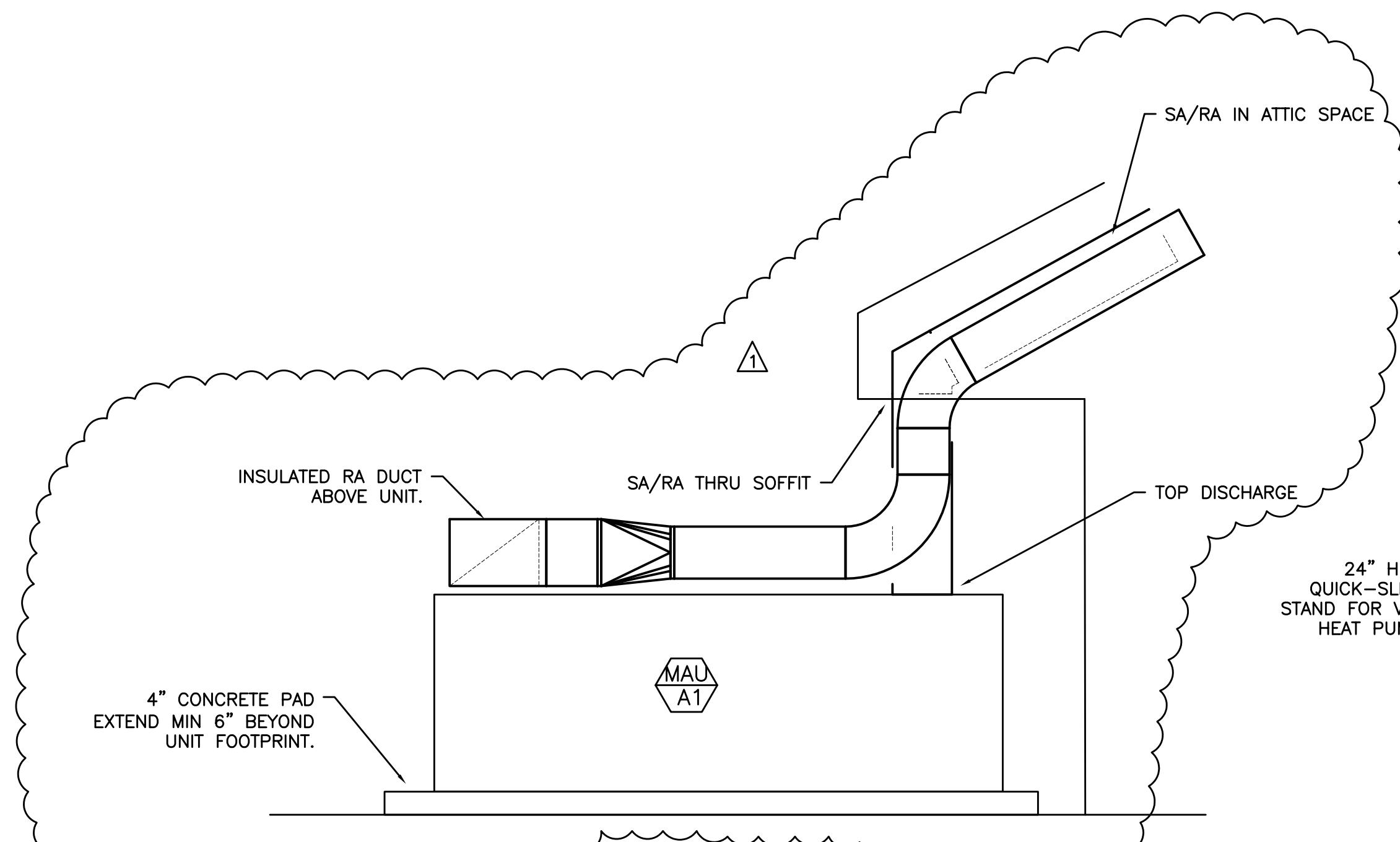
4 UTILITY SET EXH FAN  
M6.2 DETAIL



5 DUCT PENETRATION DETAIL  
M6.2 DETAIL



3 TYP. CONDENSER INSTALLATION  
M6.2 DETAIL



6 MAKE-UP AIR UNIT  
M6.2 SCALE: DETAIL

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CONTACT: TAKAKO BAKER

PLAN REVIEW APPROVAL STAMP

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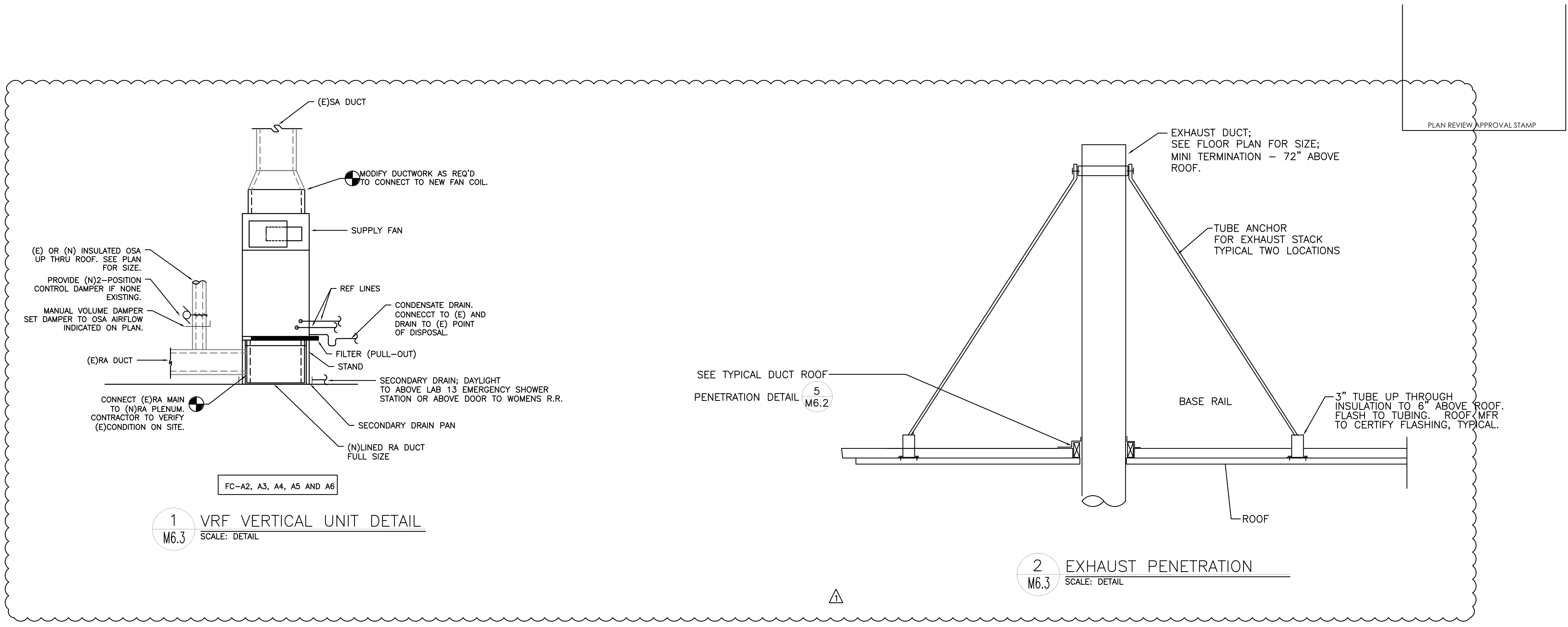
REGISTERED PROFESSIONAL  
ENGINEER  
TAKAKO BAKER  
JULY 9, 2009  
TAKAKO BAKER  
EXPIRES: 12/31/17

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ISSUED:  
GENERAL REVISIONS 5/3/17

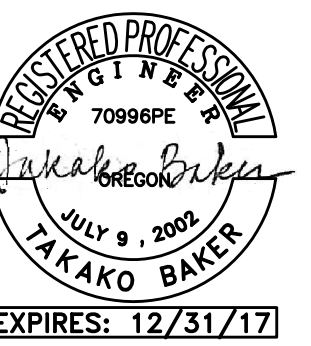
MECHANICAL DETAILS  
**M6.2**



1 VRF VERTICAL UNIT DETAIL  
 SCALE: DETAIL

2 EXHAUST PENETRATION  
 SCALE: DETAIL

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