


1 LOWER LEVEL MECHANICAL PLAN
M2.01 SCALE: 1/4" = 1'-0"

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LOT 13 MANZANITA MIXED USE
 LOT 13, MANZANITA, OR 97130

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MECHANICAL PLAN



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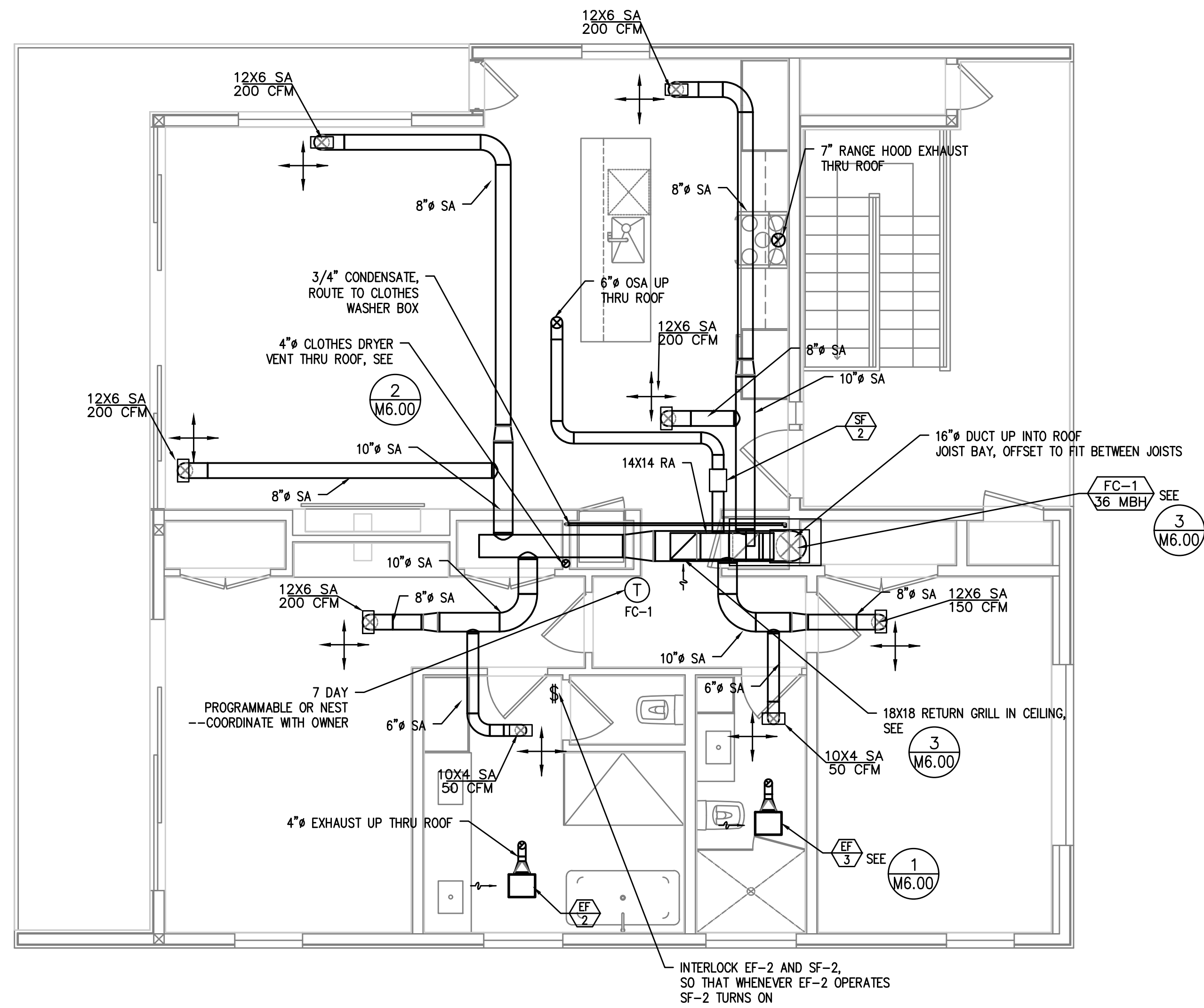


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1 UPPER LEVEL MECHANICAL PLAN
M2.02 SCALE: 1/4" = 1'-0"

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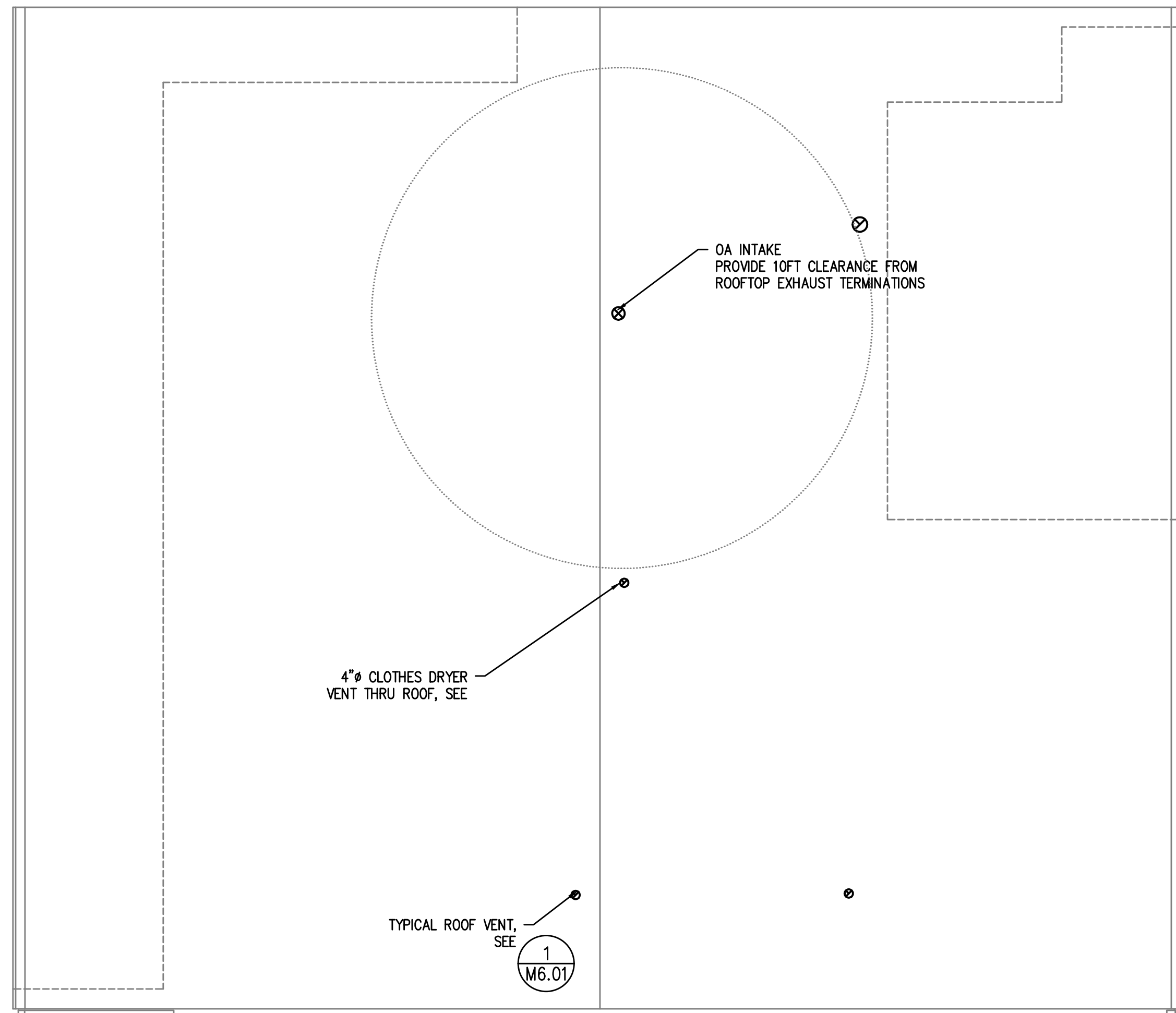


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 **1** ROOF LEVEL MECHANICAL PLAN
M2.03 SCALE: 1/4" = 1'-0"

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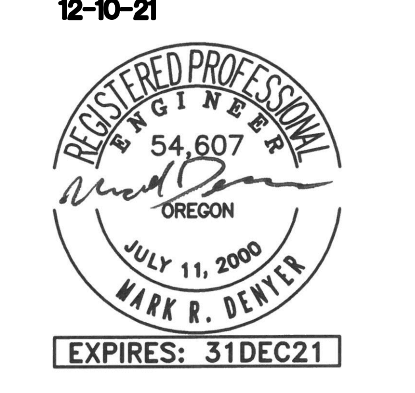
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MECHANICAL PLAN



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MECHANICAL SCHEDULES

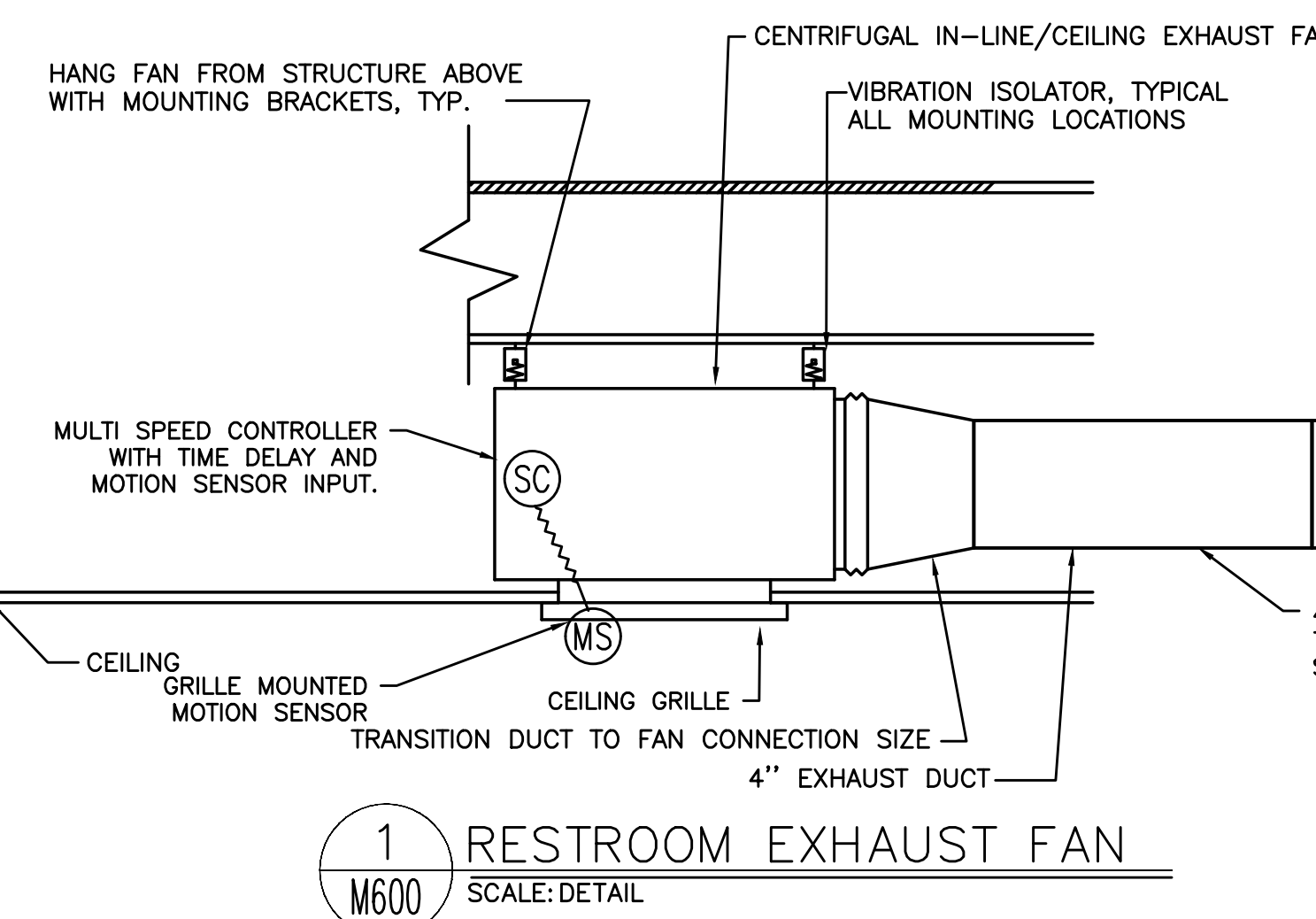
MECHANICAL LEGEND

- | | | | |
|--|--------------------------------------|--|-----------------------------------|
| | SUPPLY AIR DIFFUSER | | ABOVE FINISH FLOOR |
| | RETURN AIR GRILLE | | AIR HANDLING UNIT |
| | EXHAUST AIR GRILLE | | BOTTOM OF DUCT |
| | PERFORATED RETURN AIR PANEL | | BRAKE HORSEPOWER |
| | DIRECTIONAL AIR FLOW | | BRITISH THERMAL UNITS |
| | MANUAL VOLUME DAMPER | | CUBIC FEET PER MINUTE |
| | SUPPLY OR OUTSIDE AIR DUCT UP & DOWN | | CONNECTION |
| | RETURN AIR DUCT UP & DOWN | | CONTINUATION |
| | EXHAUST AIR DUCT UP & DOWN | | DOMESTIC COLD WATER |
| | SUPPLY OR OUTSIDE AIR DUCT UP & DOWN | | DRY BULB |
| | RETURN AIR DUCT UP & DOWN | | DIAMETER |
| | EXHAUST AIR DUCT UP & DOWN | | DISTRIBUTION |
| | VAV TERMINAL UNIT | | EXHAUST AIR |
| | VVT TERMINAL UNIT | | ENTERING DRY BULB TEMPERATURE |
| | EXISTING | | ENTERING WET BULB TEMPERATURE |
| | CONNECT TO EXISTING | | ENTERING WATER TEMPERATURE |
| | THERMOSTAT OR TEMP. SENSOR | | FINISH FLOOR |
| | NOTE | | FIXTURE |
| | EQUIPMENT DESIGNATOR | | FEET PER MINUTE |
| | BALL VALVE | | FEET PER SECOND |
| | GATE VALVE | | FEET / FOOT |
| | CHECK VALVE | | GAUGE |
| | BALANCING VALVE | | GALLONS PER MINUTE |
| | THERMOMETER | | HEIGHT |
| | DIRECTION OF FLOW | | HORSEPOWER |
| | PUMP | | INSIDE DIAMETER |
| | STRAINER | | INCHES |
| | PRESSURE GAUGE | | LENGTH |
| | PETE'S PLUG | | LBS. |
| | DOUBLE CHECK ASSEMBLY | | LEAVING DRY BULB TEMPERATURE |
| | PRESSURE REDUCING VALVE | | LEAVING WET BULB TEMPERATURE |
| | UNION | | LEAVING WATER TEMPERATURE MAXIMUM |
| | 2-WAY CONTROL VALVE | | MAXIMUM MBH |
| | 3-WAY CONTROL VALVE | | MINIMUM |
| | CAP | | NOISE CRITERIA |
| | SMOKE DETECTOR | | NORMALLY CLOSED |
| | MOTORIZED DAMPER | | NOT IN MECHANICAL |
| | | | NUMBER |
| | | | NORMALLY OPEN |
| | | | OUTSIDE AIR |
| | | | PERSON |
| | | | POUNDS PER SQUARE INCH |
| | | | PRESSURE / TEMPERATURE |
| | | | RETURN AIR |
| | | | RECTANGULAR |
| | | | RECTANGULAR REQUIRED |
| | | | SUPPLY AIR |
| | | | STATIC PRESSURE |
| | | | SQUARE |
| | | | TEMPERATURE |
| | | | TYPICAL |
| | | | VARIABLE AIR VOLUME |
| | | | WIDTH |
| | | | WET BULB |
| | | | WATER PRESSURE DROP |
| | | | DIAMETER |
| | | | (E) EXISTING |
| | | | (D) DEMOLISH |
| | | | NEW WORK |
| | | | (HWS) HEATING WATER SUPPLY |
| | | | (HWR) HEATING WATER RETURN |
| | | | FIRE DAMPER |
| | | | FIRE / SMOKE DAMPER |
| | | | SMOKE DAMPER |
| | | | SEISMIC BRACING |
| | | | LATERAL BRACING |
| | | | LONGITUDINAL BRACING |
| | | | LONGITUDINAL & LATERAL BRACING |

EXHAUST FANS

MARK NUMBER	EF 1	EF 2	EF 3
TYPE	CEILING CABINET	CEILING CABINET	CEILING CABINET
SYSTEM	RESTROOM	BATHROOM	BATHROOM
CFM	30/80	80	80
TOTAL SP. (IN H2O)	0.1	0.20	0.20
RPM	958	1062/1146	1062/1146
TIP SPEED (FPM)	--	NA	NA
MOTOR WATTS OR HP	10.5 W	5/11.7 W	5/11.7 W
CONTROLLED BY	**	SWITCH	SWITCH
INTERLOCK WITH	NONE	NONE	NONE
FAN SPEED CONTROLLER	NO	YES	YES
WHEEL TYPE	FC	BI	BI
BACK DRAFT DAMPER	GRAVITY	YES	YES
ISOLATION	RUBBER	RUBBER	RUBBER
DESIGN WEIGHT (LBS)	25	25	25
MAX. SONES	0.4	0.3/0.6	0.3/0.6
MAX AMPS - ***	0.11	0.27	0.27
POWER (VOLTS/PHASE/HZ) - ***	120/60/1	120/1/60	120/1/60
BASIS OF DESIGN:	PANASONIC FV-05-11VKS2	PANASONIC FV-05-11VKS2	PANASONIC FV-05-11VKS2

** - FAN TO RUN AT LOW SPEED CONTINUOUSLY, AND INCREASE TO HIGH SPEED UPON ACTIVATION OF SWITCH.
*** - ELECTRICAL DATA LISTED FOR REFERENCE ONLY, COORDINATE WITH ELECTRICAL DESIGN BUILD CONTRACTOR FOR VOLTAGE AND PHASE REQUIREMENTS



1 RESTROOM EXHAUST FAN
SCALE: DETAIL

OUTDOOR UNITS - SPLIT SYSTEM HP

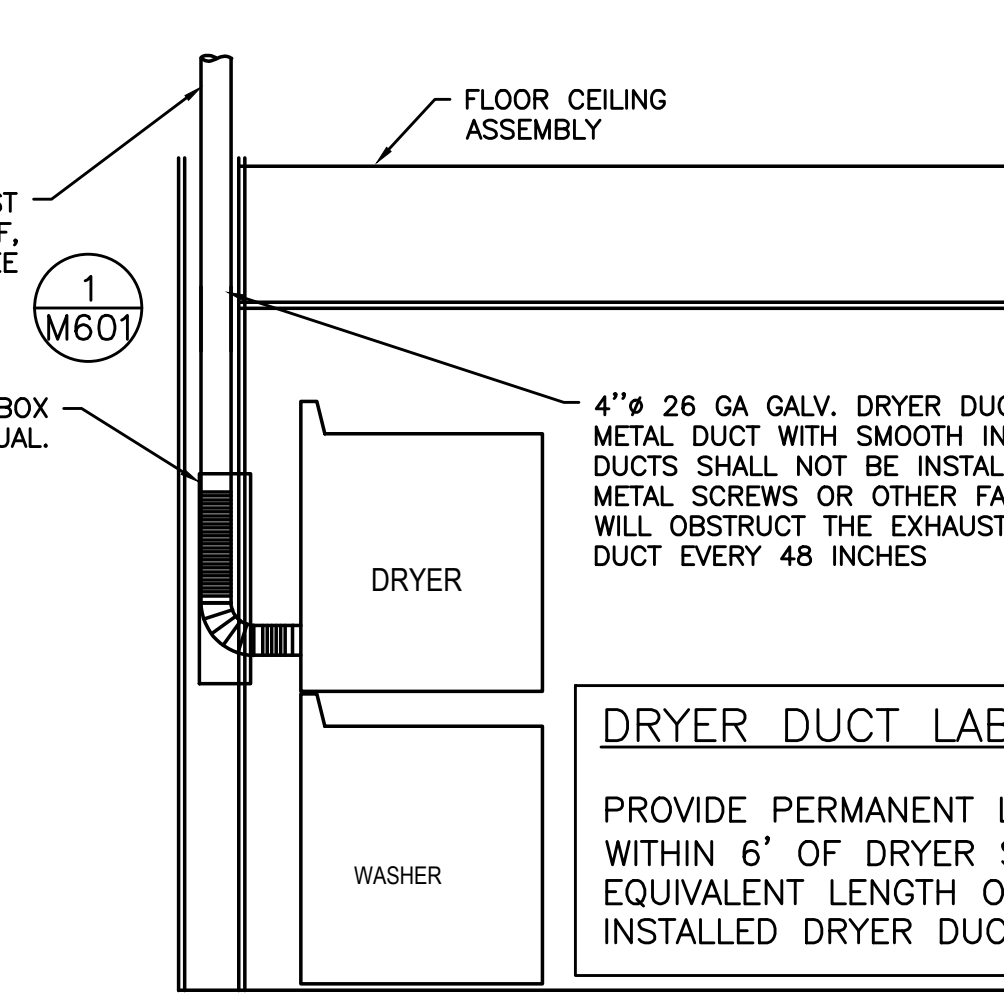
MARK NUMBER	HP-1 3 TON
SYSTEM	UPPER LEVEL RESIDENCE
TYPE	1-PORT HEAT PUMP
NORMAL COOLING CAPACITY	36,000 BTUH
NORMAL HEATING CAPACITY	36,400 BTUH
EFFICIENCY SEER/EER	15.3/11.6
EFFICIENCY HSPF/COP	--/--
REFRIGERANT	410 A
REFRIGERANT CHARGE	X LBS
MAX OPERATING TEMPS	115/5
MAX PIPING LENGTH	230 FT
MAX PIPING HEIGHT	98 FT
VOLTS-PHASE - **	208/230-1 PHASE
MCA/MOP - **	29.1/35.0 AMPS
COMPRESSOR	VARIABLE SPEED
WEIGHT	250 LBS
BASIS OF DESIGN	DAIKIN RZQ36TAVJUA

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INDOOR UNITS - *

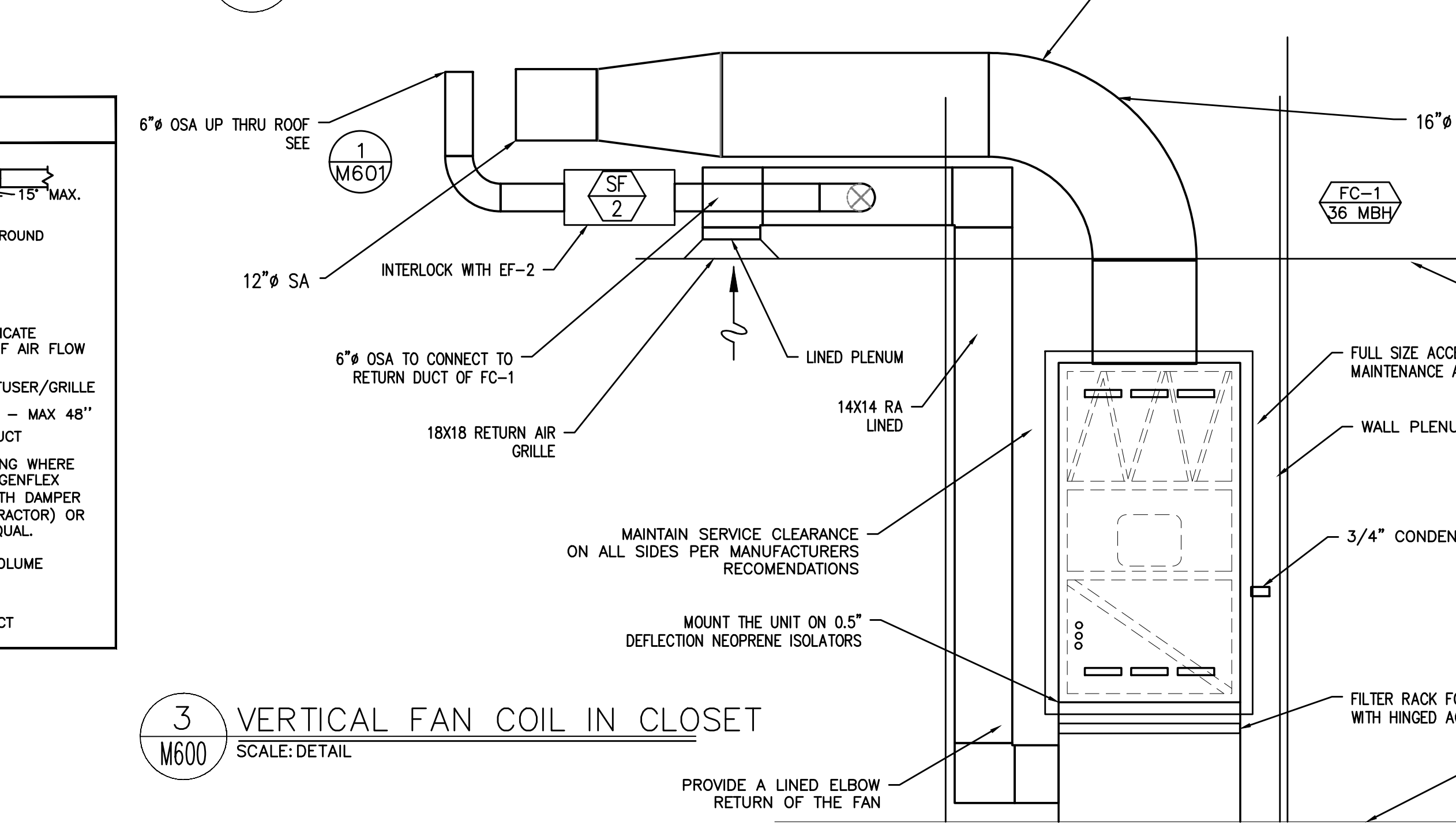
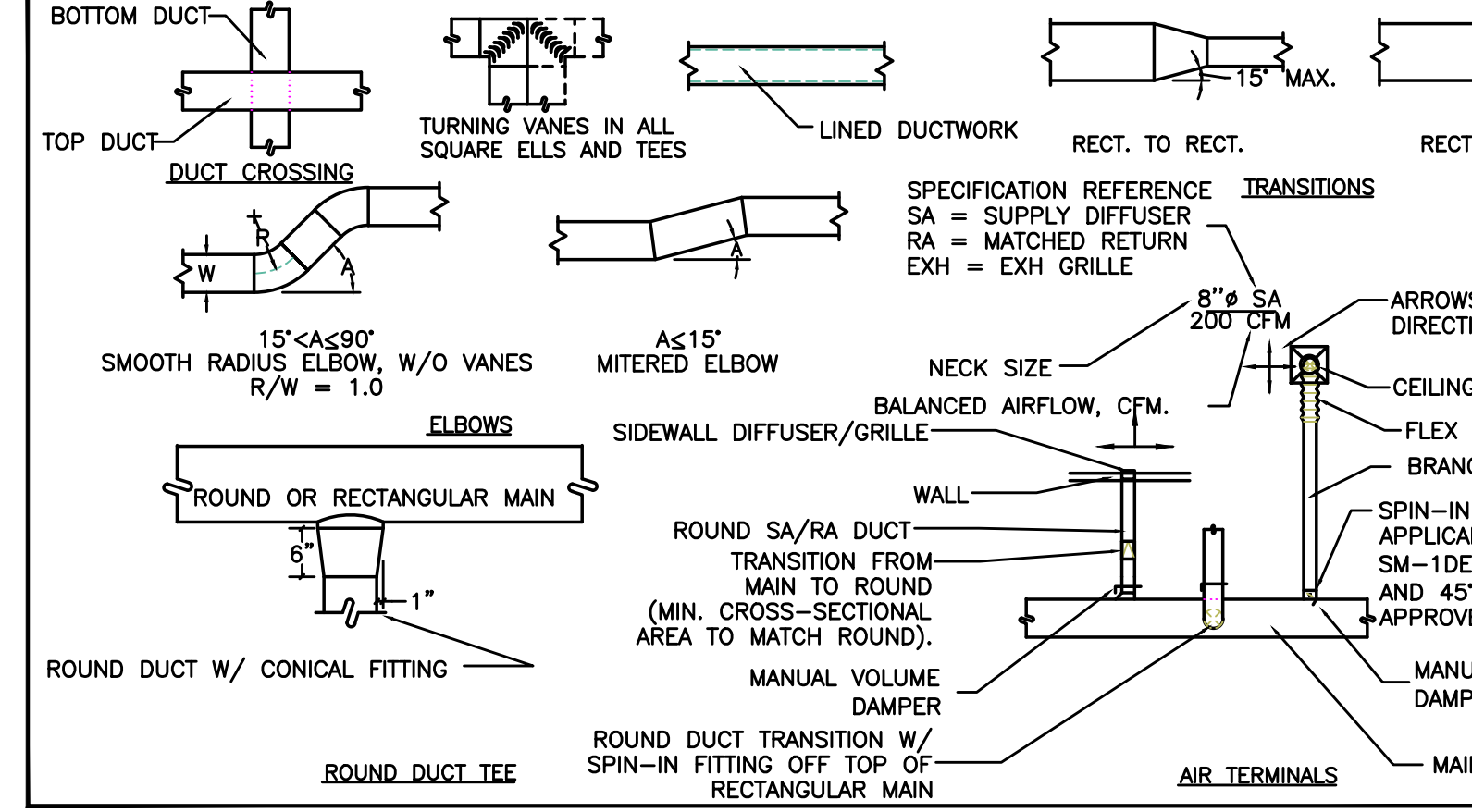
MARK NUMBER	FC-1 36 MBH
SYSTEM	UPPER LEVEL RESIDENCE
TYPE	VERT. DUCTED
EFFICIENCY	SEE OUTDOOR UNIT
NOMINAL COOLING CAPACITY	36,000 BTUH
HEATING CAPACITY	36,000 BTUH
TOTAL SUPPLY CFM	1050
OSA CFM	60
EXTERNAL SP. ("H2O)	0.25
VOLTS/PHASE	208/1
MCA/MOP	14.9/15
WEIGHT	150
BASIS OF DESIGN	DAIKIN FTQ36TAVJUD
OUTDOOR UNIT	HP-1 3 TON

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2 TYPICAL DRYER INSTALLATION
NOT TO SCALE

AIR DISTRIBUTION DETAILS



3 VERTICAL FAN COIL IN CLOSET
SCALE: DETAIL

ELEC HEATERS

MARK NUMBER	EH 1
LOCATION	RETAIL
STYLE	CADET
KW	5
POWER (VOLTS/PHASE)	208/1
BASIS OF DESIGN:	QMARK MUH0571

ELECTRIC DUCT HEATER

MARK NUMBER	SF 1
SIZE (KW)	1.44 KW
DUCT SIZE	8"
STEPS	2
MCA	12.6
POWER (VOLTS/PHASE) *	120/1
BASIS OF DESIGN:	HOTPOD HPB

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RVL28 Low-Profile Roof Vent

Technical Data Sheet

FEATURES & BENEFITS

- Enhances aesthetics with low profile that blends in with roof.
- Maximize inventory turns with single hood size and separate 4 to 8 inch easy snap-in adapters.
- Excellent for areas with high wind.
- Eliminates leaky joints and maximizes water protection with one-piece, molded hood.
- Oversized flange ensures watertight installation.
- Long lasting durability with UV-protected, impact resistant polymer resin.
- Intake/exhaust conversion via removable damper.
- * For dryer applications use 'no screen' (NS) model.

PRODUCT DIMENSIONS

HOOD SIZE: H: 10" / W: 10.6" / D: 4.6"

COLOURS

- Black (25)
- Light Grey (31)
- Dark Grey (28)
- Tan (45)
- Dark Brown (68)

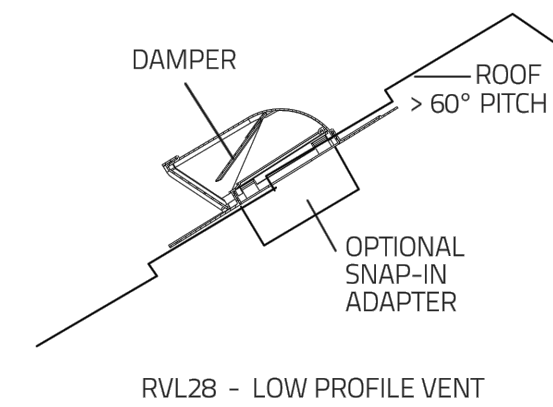
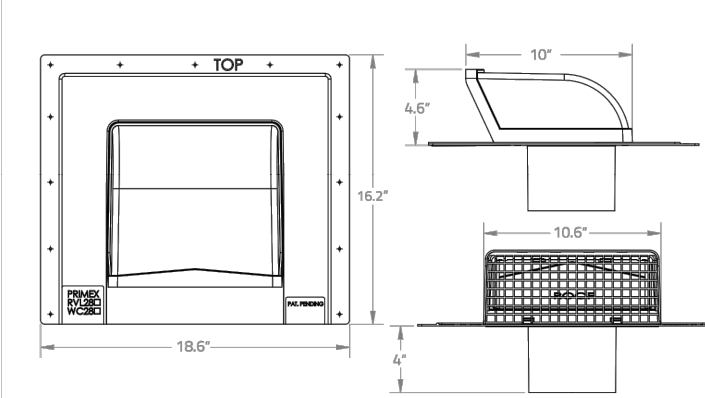
APPLICATIONS

- Dryer Venting
- Bathroom Venting
- Range Venting
- Heat Recovery Venting (HRV)
- Intake

PART NUMBER/SIZING

Part #	Size	Free Area	Description	Pkg
RVL28	7.5" x 7.25" x 9.38"	27.8 sq. in.	With screen	6/box
RVL28NS*	7.5" x 7.25" x 9.38"	40.3 sq. in.	w/o screen	6/box
ADAPTER				
RV28-4	4" Dia.	12.6 sq. in.	4" Adapter	30/box
RV28-5	5" Dia.	19.6 sq. in.	5" Adapter	30/box
RV28-6	6" Dia.	27.8 sq. in.	6" Adapter	25/box
RV28-7	7" Dia.	27.8 sq. in.	7" Adapter	25/box
RV28-8	8" Dia.	27.8 sq. in.	8" Adapter	18/box

TECHNICAL DRAWING



CONTACT US FOR MORE INFORMATION:
1.604.881.7875 | info@primexvents.com



BROAN

BROAN™ Fresh In Basic
FIN-180B; see table for available part numbers.
30-180 CFM at 0.2 in. w.g.
30-170 CFM at 0.4 in. w.g.

The Broan Fresh In series is a quiet and effective supply air solution for hot and mixed climates, offering renewed fresh air comfort. It offers the greatest reduction of HERS score compared to CIFS solutions. Thanks to their ECM motors, the Basic FIN-180B and FIN-180B-HW models deliver energy-efficient continuous ventilation at a constant airflow in typical installations. Designed to be the most versatile, reliable and energy-efficient supply fan on the market, it can also be installed horizontally, vertically, upside down, or flush to the ceiling. Two models are available: with a power cord or hardwired.

Mechanical components

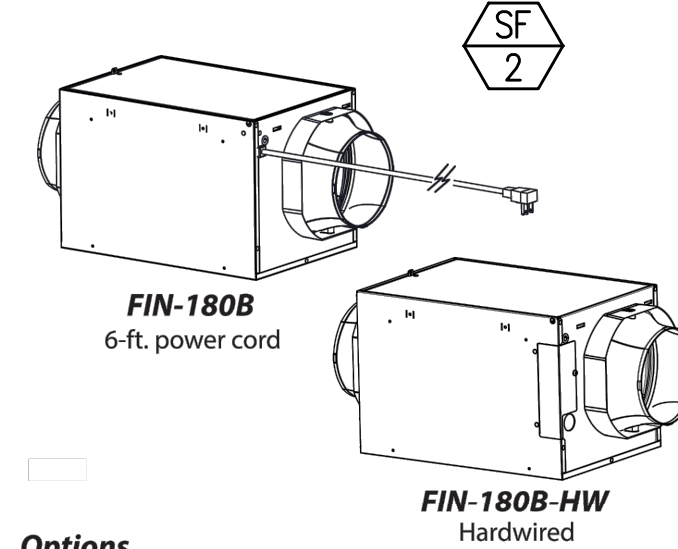
- High efficiency ECM motor
- Constant airflow blower designed to maintain the selected airflow in standard installations
- Silent ventilation with balanced metallic dual inlet blower wheel
- Spring loaded damper
- Blower efficiency as high as 12.4 CFM/W
- Protection grille for blower

Electronic features

- Adjustable speed from 30 to 180 CFM in 10 CFM increments

Installation features

- Five installation possibilities: ceiling hung, flush to ceiling, attic mounted, ceiling mounted and wall mounted
- Paintable door and frame
- Compact and designed to fit between 12-in. cc joists
- 6-in. diameter ports with integrated test ports and bumps to maintain tie-trap in place
- 6-ft. power cord (FIN-180B) or hardwired (FIN-180B-HW)
- Easy maintenance: can be done within 5 minutes through the access door



Options

Description	Part no.
9.25" x 9.25" x 2" MERV 8 filter	FIN-MERV8
9.25" x 9.25" x 2" MERV 13 filter	FIN-MERV13
Paintable decorative finishing trim for discreet installation	FIN-R1015
Installation bracket, including hardware for installation between joists of 16-in. cc and 24-in. cc	FIN-S1624

Warranty

The BROAN™ Fresh In Basic is protected by a 5-year warranty on parts only.

Requirements and standards

When properly installed and set, this unit will meet requirements of:

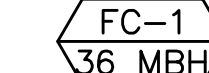
- EPA Indoor airPLUS, Version 1
- 2012 & 2015 IECC, Version 2018
- 2012 & 2015 IRC, Version 2018
- ENERGY STAR Certified Homes, Version 3
- ASHRAE 62.2-2010 & 62.2-2016

Characteristics

	FIN-180B	FIN-180B-HW
Power	6-ft. power cord	Hardwired
Noise level	0.65 sone at 130 CFM	
Weight	11 lb.	
Shipping weight	14.5 lb.	
Ports diameter	6 in.	
Width	10 1/4 in.	
Length	14 3/4 in. (without ports)	
Height	10 in.	
Min. operating temperature	14 °F	



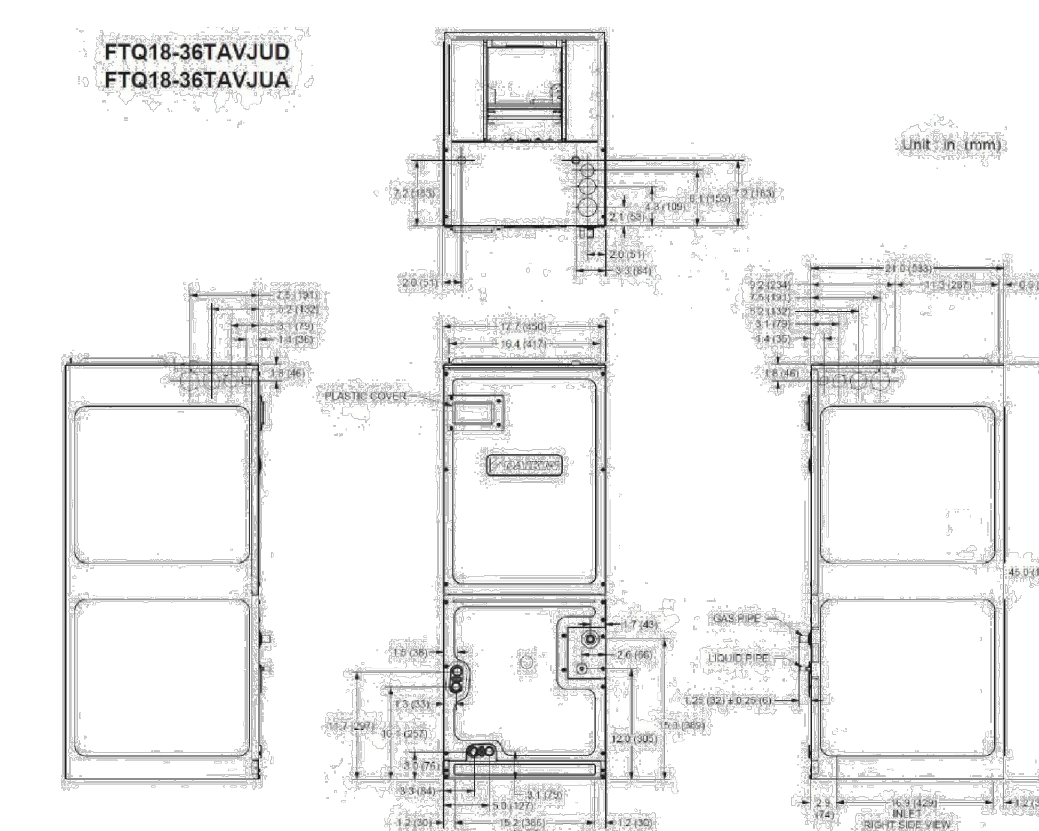
Submital Data Sheet
3.0-Ton Multi-Position Air Handler
FTQ36TAVJUDRZQ36TAVJUA



INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H) (CFM):	1050
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/yr):	
Min. Circuit Amps MCA (A):	4.9	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	45 x 17.5 x 21	Condensate Connection (inch):	3/4
Net Weight (lb):	140	Sound Pressure (HxM) (dBA):	52 / 48 / 44
Ext. Static Pressure (Rated/Max) (inWg):	/ 0.9	Sound Power Level (dBA):	

DIMENSIONAL DRAWING - INDOOR UNIT



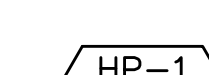
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www.daikinac.com www.daikincomfort.com

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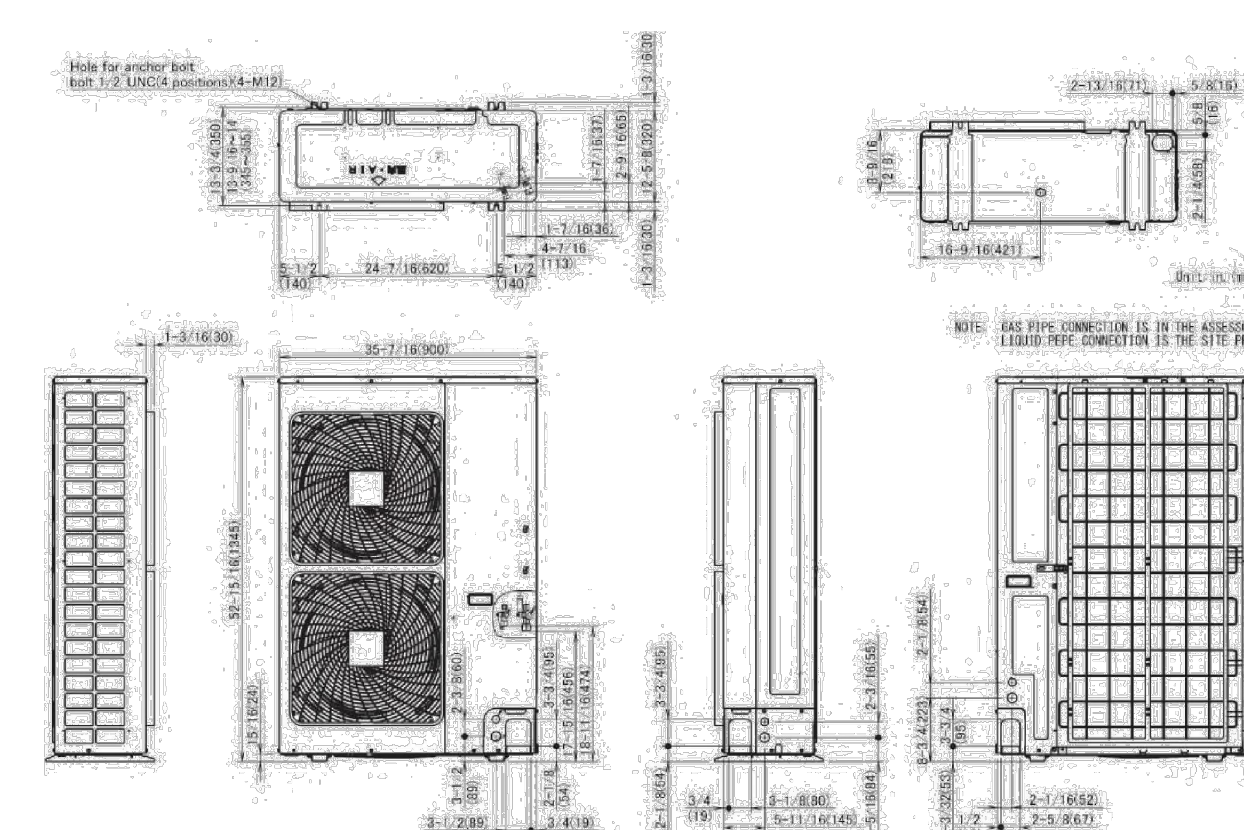


Submital Data Sheet
3.0-Ton Multi-Position Air Handler
FTQ36TAVJUDRZQ36TAVJUA



OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Compressor Stage:	
Power Supply Connections:	L1, L2, Ground	Capacity Control Range (%):	14 - 100
Min. Circuit Amps MCA (A):	29.1	Airflow Rate (H) (CFM):	3741
Max Overcurrent Protection (MOP) (A):	35	Gas Pipe Connection (inch):	5/8
Max Starting Current MSC(A):		Liquid Pipe Connection (inch):	3/8
Rated Load Amps RL(A):		Sound Pressure (H) (dBA):	57
Dimensions (HxWxD) (in):	52-15/16 x 36-7/16 x 12-5/8	Sound Power Level (dBA):	
Net Weight (lb):	225		



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1 ROOF INTAKE/EXHAUST IN SLOPED ROOF M601 SCALE: DETAIL

VENTILATION AIR SCHEDULE - COMMERCIAL SPACE 101

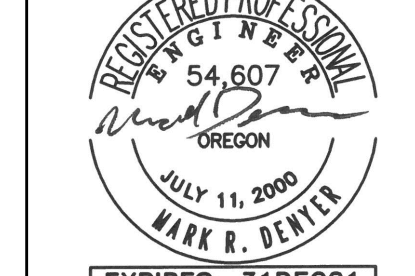
ROOM NUMBER AND NAME	AREA (SQ. FT.)	OCCUPANT LOAD (#/1000 SQ. FT.)	NUMBER OF OCCUPANTS	OUTSIDE AIR REQUIREMENT (CFM/P)	OUTSIDE AIR REQUIREMENT (CFM/SQ FT.)	OUTSIDE AIR REQUIRED (CFM)	ZONE OSA (CFM)	SUPPLY AIR (CFM)	PRIMARY OSA FRACTION	RETURN AIR (CFM)	EXHAUST AIR (CFM)	Zone Ventilation Efficiency	Corrected OSA CFM	AIR SYSTEMS
	Az	Pz	Rp	Ra	Vbz	Ez	Voz	Vpz	Zp			Evz		
SALES	1074	15	17	7.5	0.12	256	0.8	320	320	1.00	0	0	1.00	320.48 SF-1
TOTAL	1074		17			256		320	320		0	0	1.00	320
								Vou	Vps		0	0	Ev	
										320	CFM	Corrected OSA Fraction	Zs =	1.00



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