

- ### KEY NOTES
- REMOTE TEST STATION FOR SMOKE DETECTORS FOR RTU-1, 2, & 3. TEST STATION TO BE MOUNTED ON THE WALL. SECURITY CONTRACTOR SHALL WIRE RTU FACTORY MOUNTED SMOKE DETECTORS TO SECURITY/FIRE ALARM PANEL. MECHANICAL CONTRACTOR SHALL PROVIDE TEST STATION AND WIRING BETWEEN COMPONENTS AS WELL AS WIRING TO SHUT DOWN THE A/C FAN UPON ACTIVATION OF THE SMOKE DETECTOR. G.C. TO TEST THE SMOKE DETECTOR FUNCTIONS WITH THE WAWA PROJECT MANAGER.
 - WALL MOUNTED SENSOR(S) FOR EACH MECHANICAL UNIT PER ROOFTOP UNIT SCHEDULE ON SHEET M3.0 G.C. SHALL INSTALL AND WIRE TO UNIT, BAS CONTRACTOR SHALL CONNECT TO MECHANICAL UNIT ONLY.
 - COORDINATE EXACT LOCATION OF EXHAUST FAN PENETRATION WITH ARCHITECTURAL ROOF PLAN. INSTALL GALVANIZED DUCT WORK FROM FAN, INTO CEILING/JOIST SPACE, AND CONNECT TO CEILING GRILLES.
 - REFER TO TYPICAL DUCT PLENUM DETAIL ON SHEET M3.0
 - COORDINATE DUCT WITH STRUCTURAL IN THIS LOCATION. COORDINATE TAKEOFF LOCATIONS WITH ANGELED WEB MEMBERS AND SUPPORT AT PANEL POINT.
 - PROVIDE SURFACE MOUNT ADAPTER FRAME TO ALLOW ACCESS TO CEILING ABOVE THROUGH DIFFUSER OPENING. SEE AIR DEVICE SCHEDULE.
 - ROUTE DUCT UNDER STRUCTURAL MEMBERS AT THIS LOCATION.
 - DUCTWORK TO RUN WITHIN JOIST SPACING. MECHANICAL CONTRACTOR TO COORDINATE MECHANICAL WORK WITH ALL TRADES PRIOR TO INSTALLATION.
 - DUCT TAKEOFF WITH DAMPER FROM BOTTOM OF MAIN DUCT.
 - TRANSFER DUCT ASSEMBLY.
 - NOT USED.
 - NOT USED.
 - NOT USED.
 - NOT USED.
 - HEATER SHALL BE A MINIMUM OF 12" AWAY FROM ANY WALL.
 - COORDINATE INSTALLATION OF MECHANICAL SENSORS IN URESTONE WALL WITH DETAIL ON ARCHITECTURAL PLANS.
 - ROUTE SUPPLY DUCT DOWN THROUGH GYPSUM BOARD CEILING AND INTO CAVITY ABOVE FREEZER WITHIN 12" OF BACK WALL. SEAL AROUND DUCT AT PENETRATION AT TIGHT AND TERMINATE DUCT WITH OPEN END.

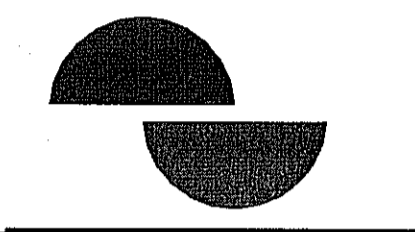
PERMITTING NOTE:
ALL REFRIGERATION EQUIPMENT INCLUDING WALK-IN COOLERS AND REFRIGERATORS WILL BE SUBMITTED UNDER A SEPARATE PERMIT.

SHEET GENERAL NOTE:
1. MECHANICAL CONTRACTOR SHALL ADJUST ALL LINEAR SLOT DIFFUSERS TO A GENERALLY VERTICAL FLOW. ADJUSTMENT SHALL BE MADE SO AS TO AVOID AIRFLOWS ON SENSORS, REFRIGERATION CASES, OR OPEN FOOD REFRIGERATION EQUIPMENT.

1 HVAC FLOOR PLAN
M1.0 NOT TO SCALE

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CLIENT NAME
WAWA
260 W. BALTIMORE PIKE
WAWA, PA 19063

PROJECT NAME
W50 M V2022.1
STORE #8710
US 9 & SCHULMEISTER RD
OLD BRIDGE, NJ

SHEET TITLE
HVAC FLOOR PLAN

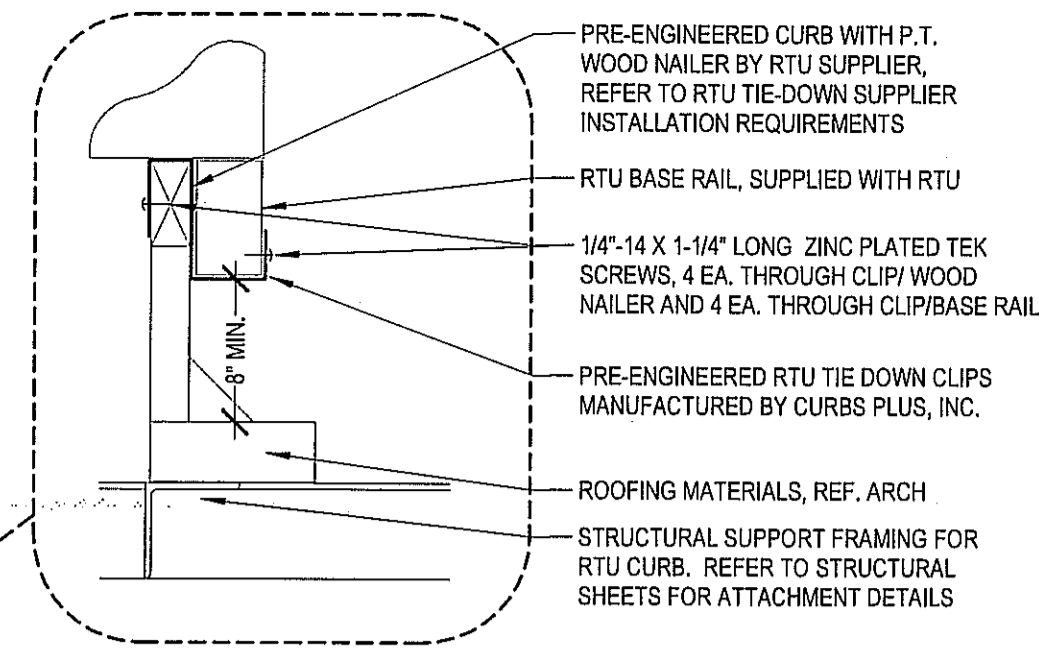
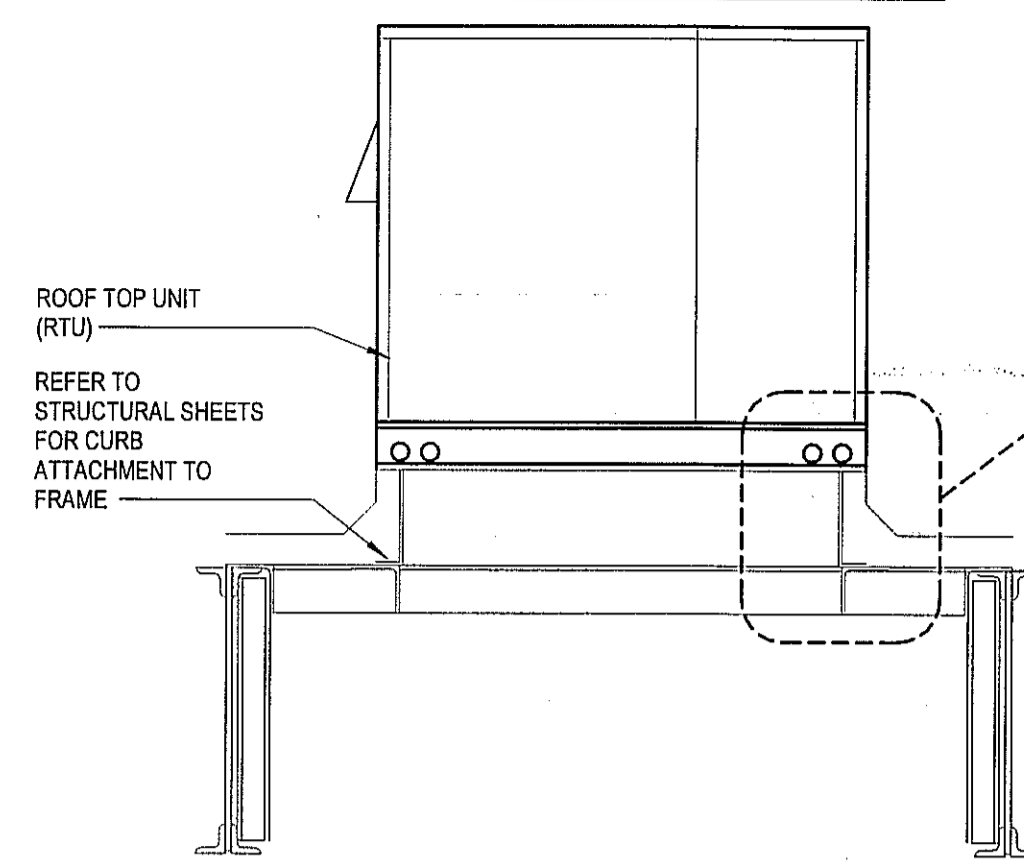
Revision Schedule	
No.	Description
1	PERMIT SET
2	BID SET
3	CONSTRUCTION SET

Revision Schedule	Date
1	08/31/2023
2	10/05/2023
3	09/03/2024

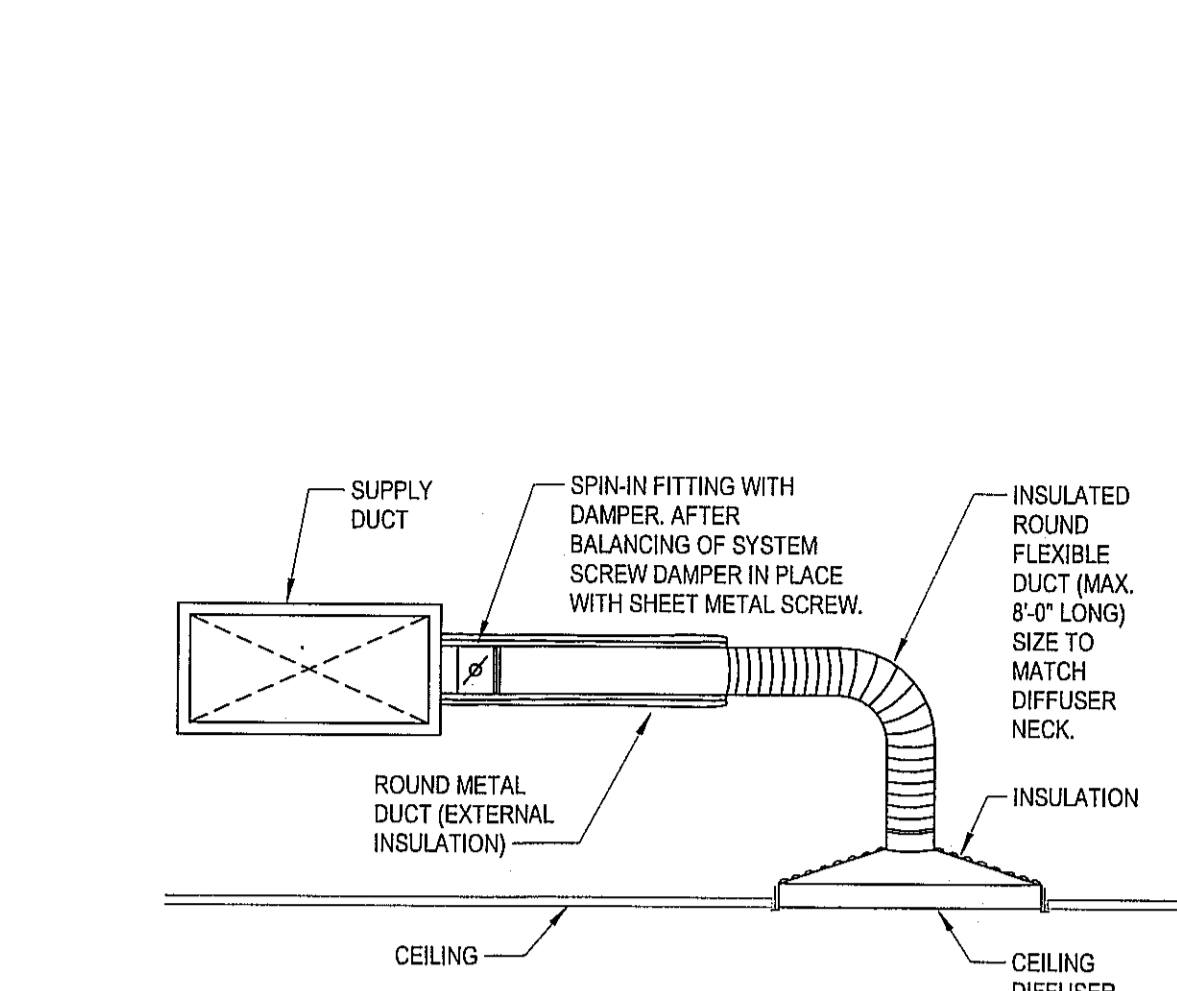
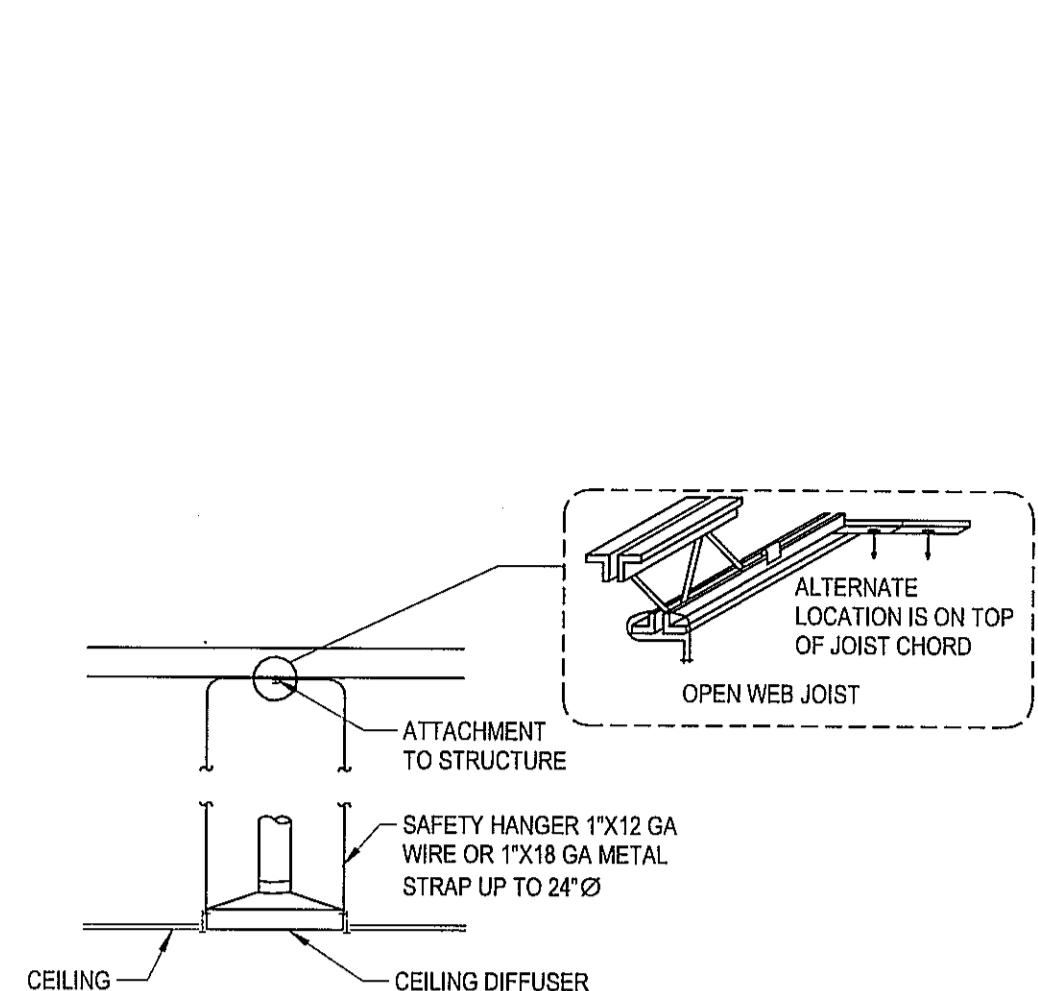
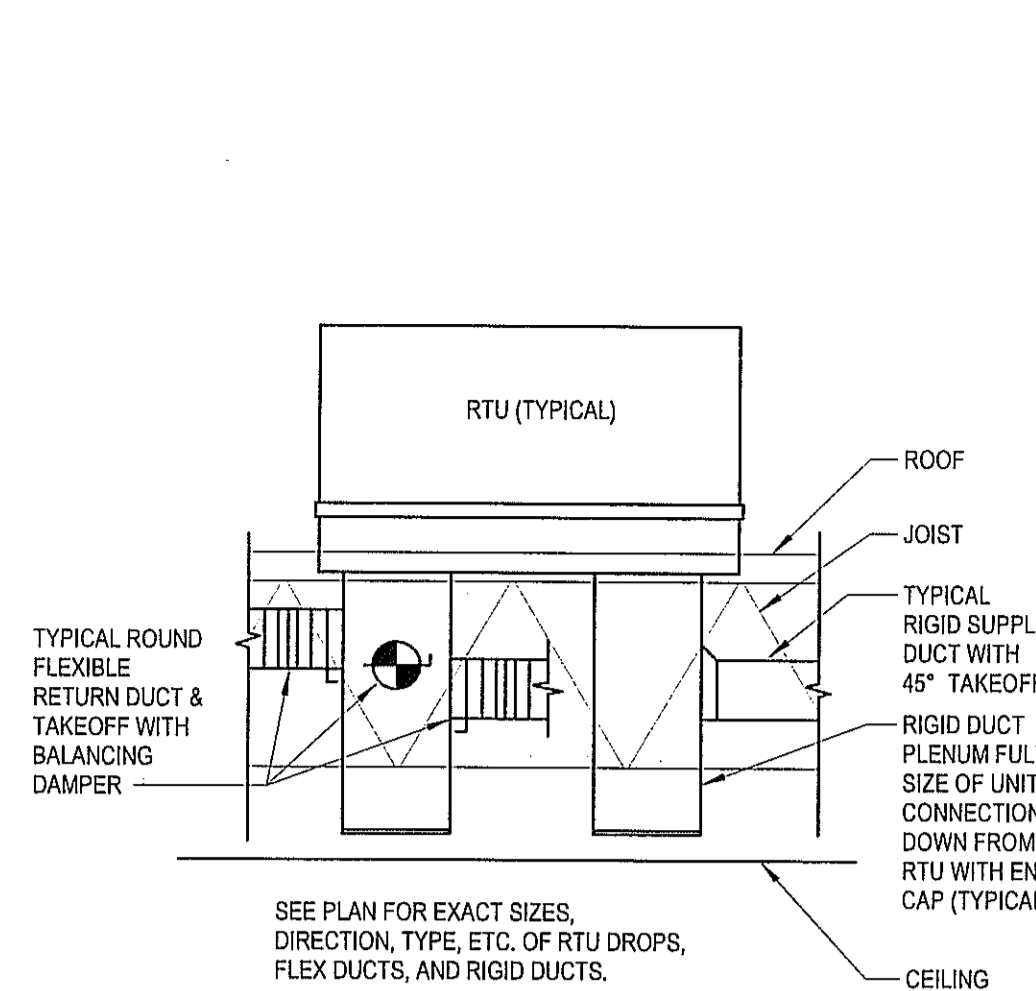
PROJECT NO.	DATE	DRAWN	CHECKED
2023028	08-31-2023	JGF	ESD

M1.0

BUILDING LOCATION	WIND SPEED ZONE (WIC FIGURE 1609A)
OLD BRIDGE, NJ	115 MPH



INSTALL TIE DOWN CLIPS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

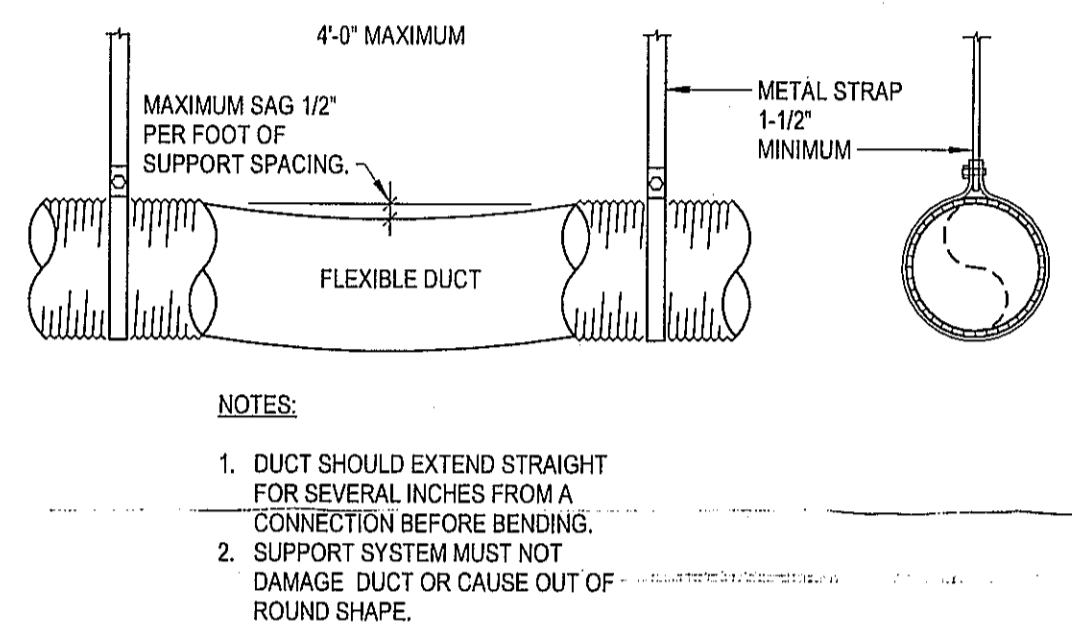


12 HVAC RTU TIE-DOWN DETAIL
M2.0 NOT TO SCALE

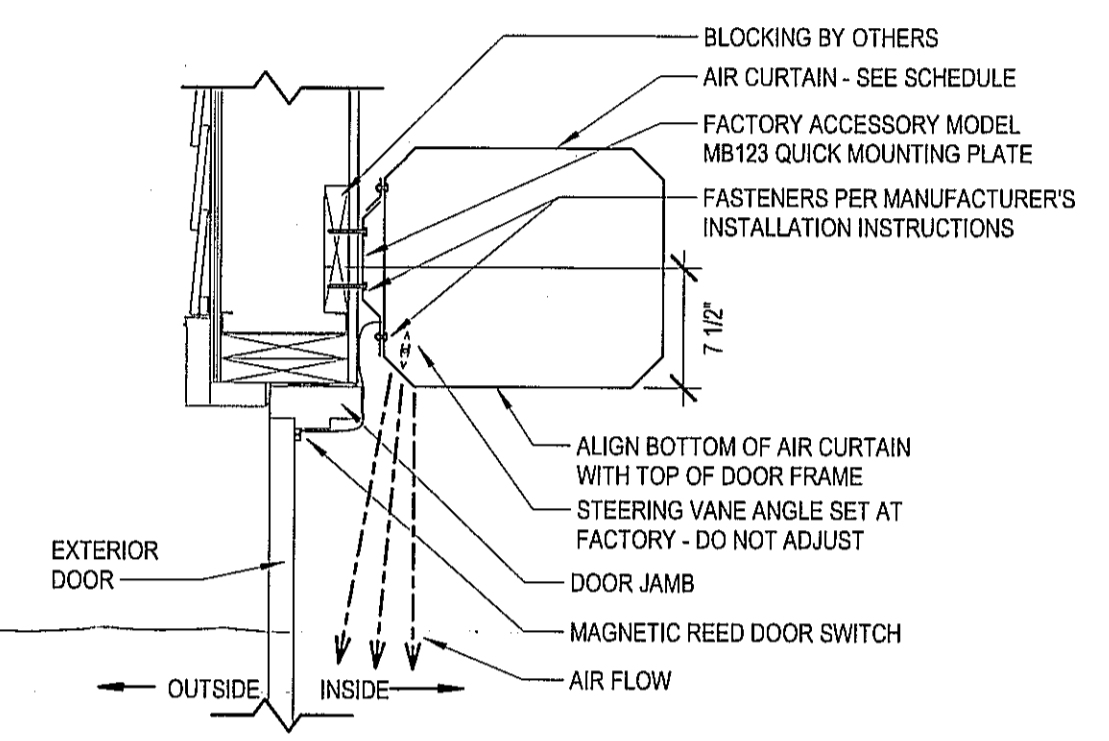
11 TYPICAL DUCT PLENUM DETAIL
M2.0 NOT TO SCALE

10 HVAC CEILING MOUNTED AIR DIFFUSER SUPPORT DETAIL
M2.0 NOT TO SCALE

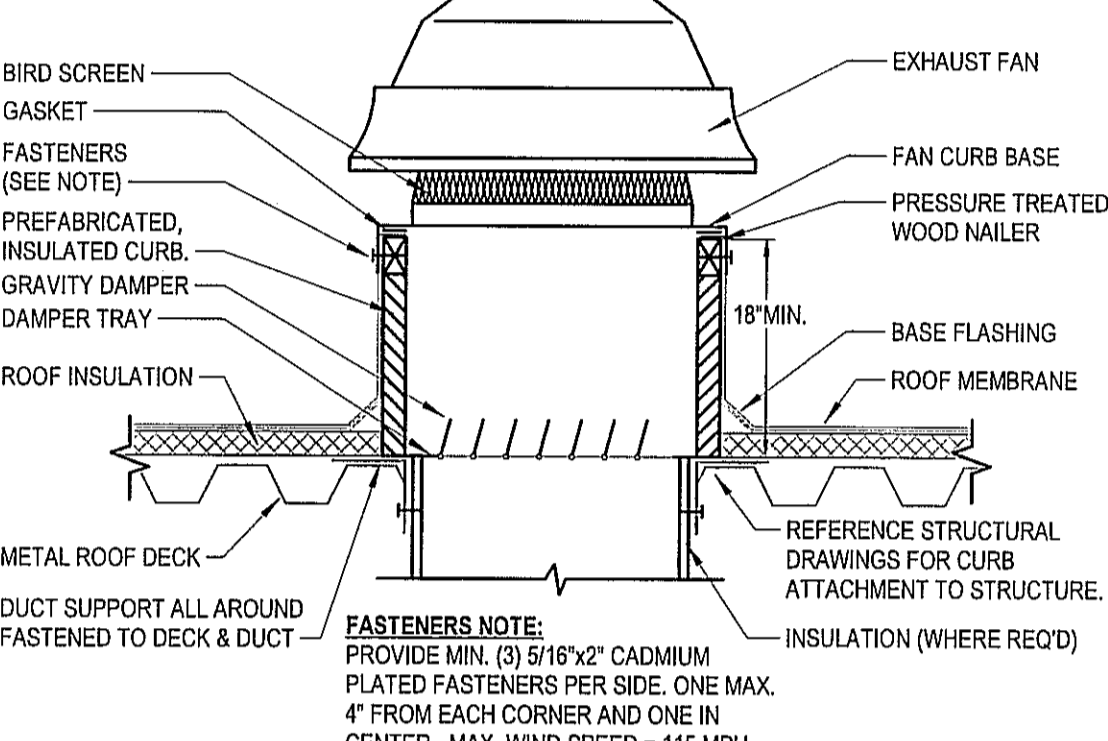
9 HVAC CEILING DIFFUSER RUNOUT DETAIL
M2.0 NOT TO SCALE



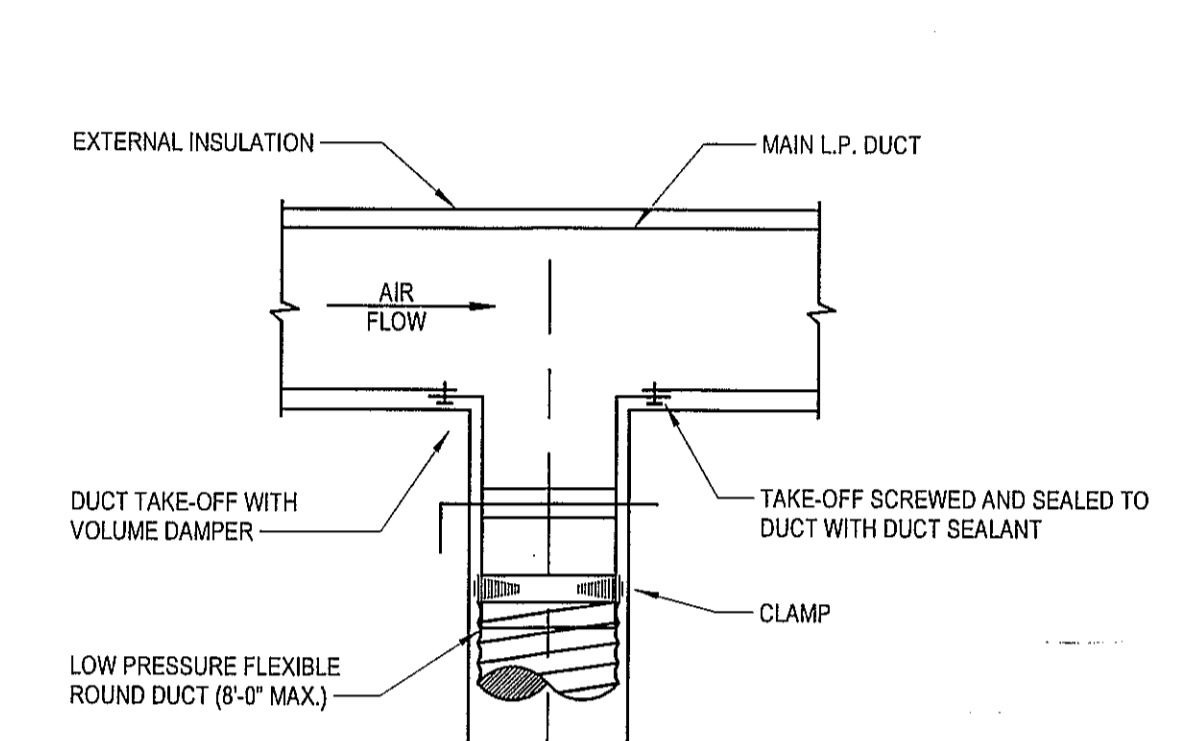
- NOTES:
- DUCT SHOULD EXTEND STRAIGHT FOR SEVERAL INCHES FROM A CONNECTION BEFORE BENDING.
 - SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE.



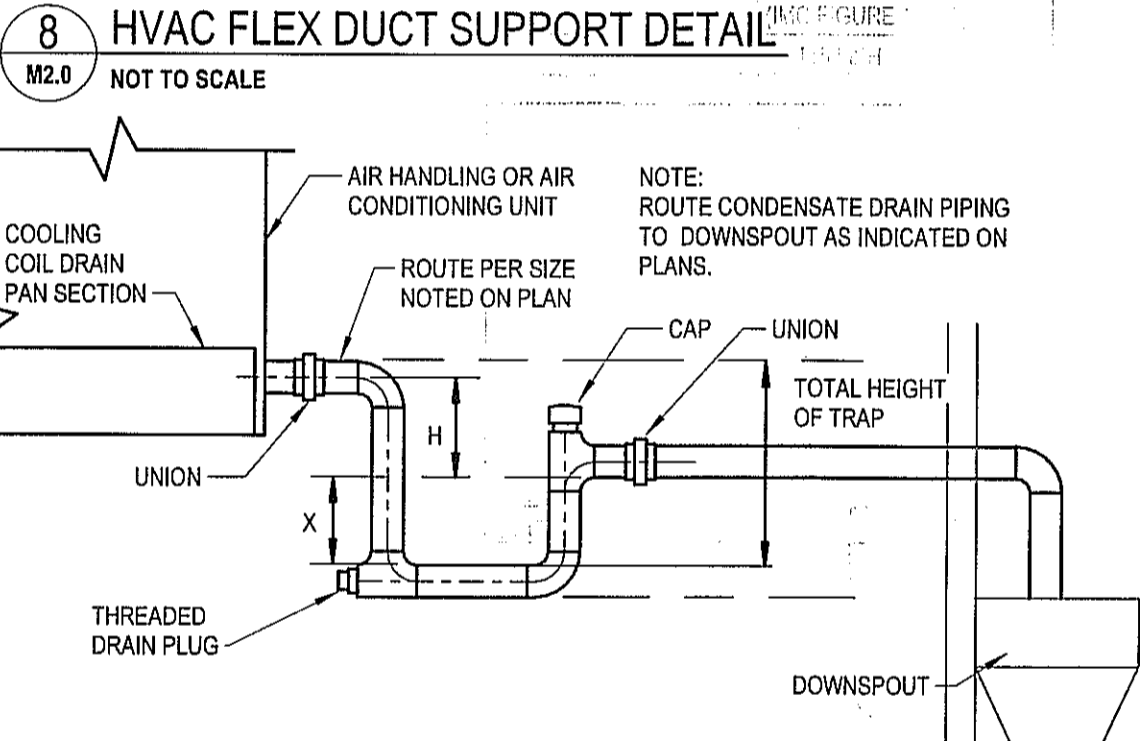
7 AIR CURTAIN INSTALLATION DETAIL
M2.0 NOT TO SCALE



6 ROOF FAN MOUNTING DETAIL
M2.0 NOT TO SCALE



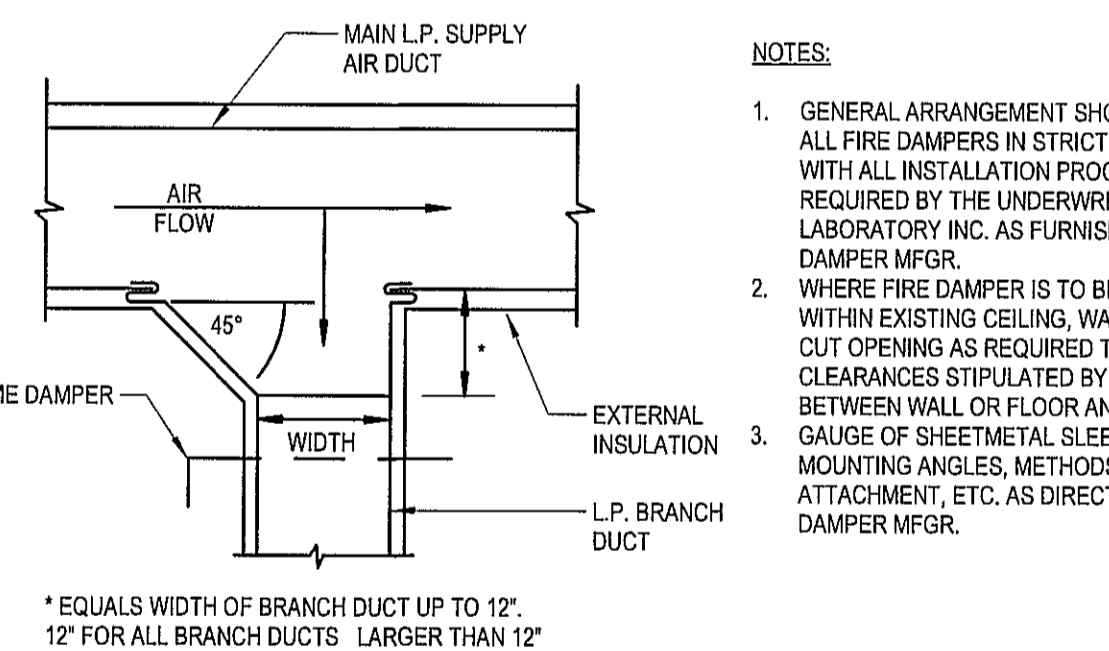
5 HVAC SUPPLY DIFFUSER TAKE OFF DETAIL
M2.0 NOT TO SCALE



DRAIN TRAPPING HEIGHT		
FAN ARRANGEMENT	H	X
BLOW-THRU (POSITIVE STATIC PRESSURE)	A	B
DRAW-THRU (NEGATIVE STATIC PRESSURE)	D	C

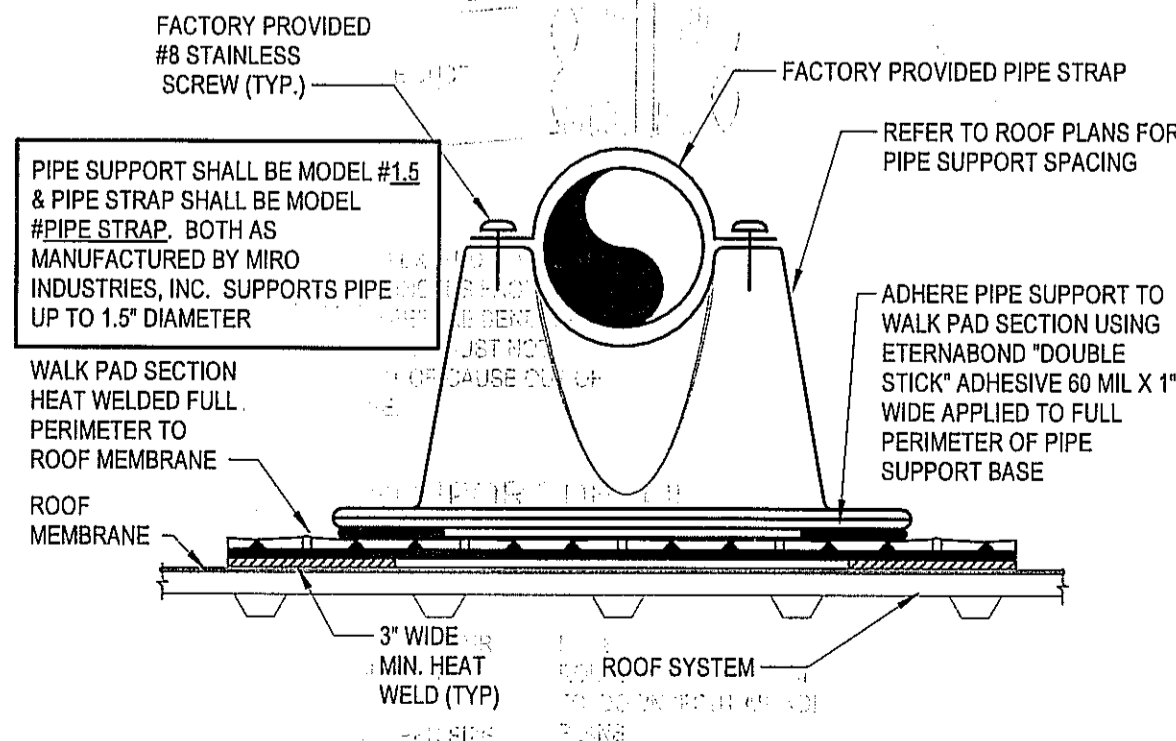
TOTAL HEIGHT OF TRAP = X + H + (1.5 x PIPE DIAMETER) (WITHOUT INSULATION)

4 HVAC CONDENSATE DRAIN DETAIL
M2.0 NOT TO SCALE

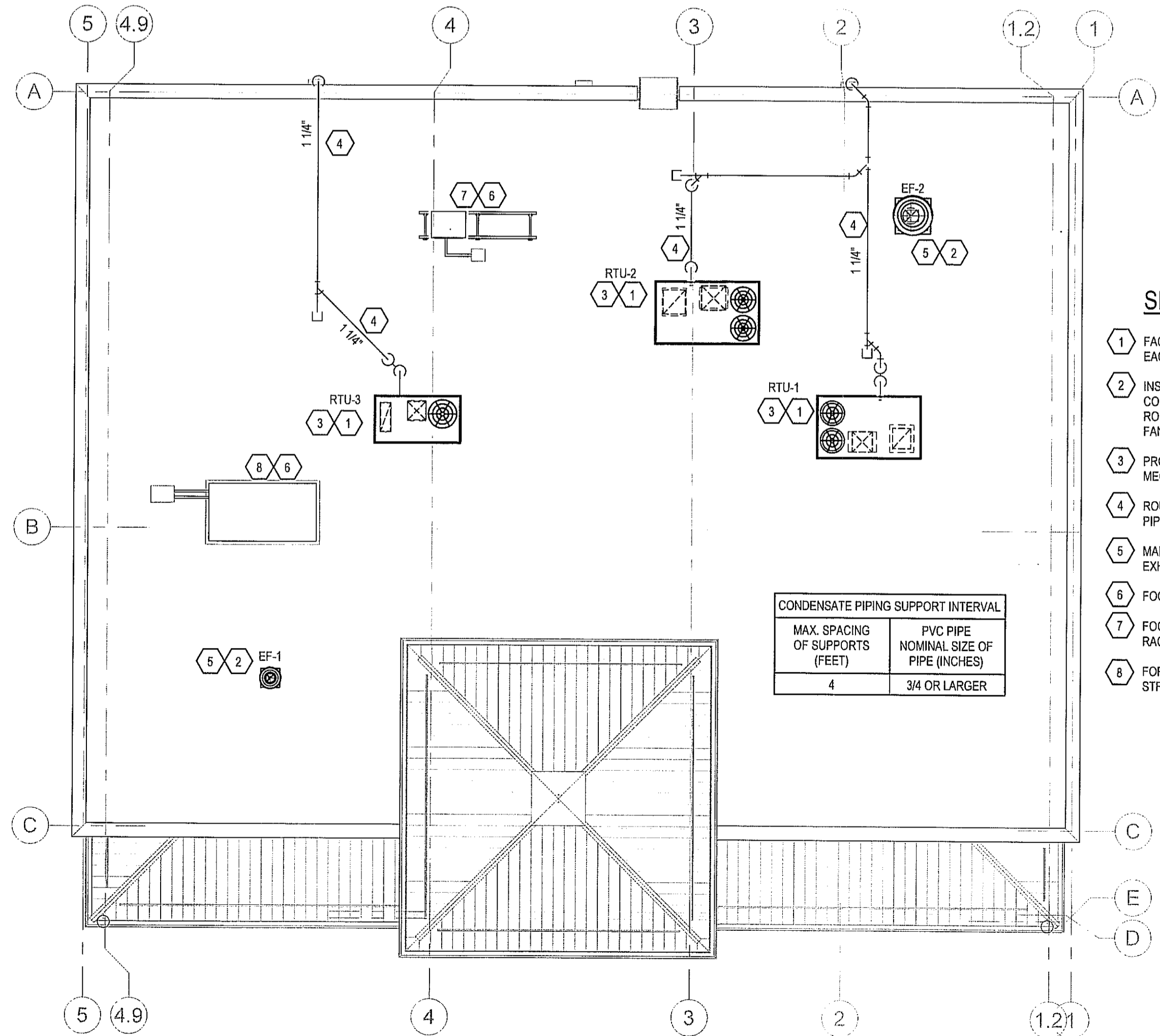


3 HVAC LOW PRESSURE SUPPLY BRANCH DUCT DETAIL
M2.0 NOT TO SCALE

- NOTES:
- GENERAL ARRANGEMENT SHOWN. INSTALL ALL FIRE DAMPERS IN STRICT ACCORDANCE WITH ALL INSTALLATION PROCEDURES REQUIRED BY THE UNDERWRITERS LABORATORY INC. AS FURNISHED BY DAMPER MFR.
 - WHERE FIRE DAMPER IS TO BE MOUNTED WITHIN EXISTING CEILING, WALL OR FLOOR, CUT OPENING AS REQUIRED TO MAINTAIN CLEARANCES STIPULATED BY THE MFR. BETWEEN WALL OR FLOOR AND SLEEVE.
 - GUAGE OF SHEETMETAL SLEEVE, MOUNTING ANGLES, METHODS OF ATTACHMENT, ETC. AS DIRECTED BY FIRE DAMPER MFR.



2 PIPE ROOF SUPPORT DETAIL
M2.0 NOT TO SCALE



1 HVAC ROOF PLAN
M2.0 1/8" = 1'-0"

SHEET NOTES

- FACTORY INSTALLED SMOKE DETECTOR IN MAIN SUPPLY AND RETURN OF EACH ROOF TOP UNIT.
- INSTALL ROOF MOUNTED EXHAUST FAN PER DETAIL ON SHEET M3.0 COORDINATE EXACT LOCATION OF FAN PENETRATION WITH ARCHITECTURAL ROOF PLAN. TRANSITION GALVANIZED DUCT WORK AS NECESSARY FROM FAN INTO CEILING/JOIST SPACE. SEE SHEET M1.0 FOR CONTINUATION.
- PROVIDE FLEXIBLE CONNECTIONS BETWEEN ALL DUCT WORK AND MECHANICAL UNITS.
- ROUTE SCH. 40 PVC CONDENSATE DRAIN PIPING ALONG ROOF. SUPPORT PIPING PER DETAIL ON SHEET M3.0
- MAINTAIN A MINIMUM 10' CLEARANCE BETWEEN OUTSIDE AIR INTAKES AND EXHAUST TERMINATIONS ON ROOF.
- FOOD SERVICE REFRIGERATION EQUIPMENT PROVIDED BY OTHERS.
- FOOD SERVICE REFRIGERATION EQUIPMENT MOUNTED ON PRE-ENGINEERED RACK. SEE ARCHITECTURAL DETAIL.
- FOR SPECIFIC WIND LOADING REQUIREMENTS NOT TO EXCEED 115 MPH, SEE STRUCTURAL DRAWINGS.

CONDENSATE PIPING SUPPORT INTERVAL	
MAX. SPACING OF SUPPORTS (FEET)	PVC PIPE NOMINAL SIZE OF PIPE (INCHES)
4	3/4 OR LARGER

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CLIENT NAME
WAWA
280 W. BALTIMORE PIKE
WAWA, PA 18063

PROJECT NAME
W50 M V2022.1
STORE #8710
US 9 & SCHULMEISTER RD
OLD BRIDGE, NJ

SHEET TITLE
HVAC ROOF PLAN & DETAILS

Revision Schedule	
No.	Description
1	PERMIT SET
2	BID SET
3	CONSTRUCTION SET

PROJECT NO. 2022028	DATE 08-31-2023	DRAWN JCF	CHECKED ESD
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M2.0

MECHANICAL GENERAL NOTES

- 1. REFER TO WRITTEN BOOK SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. THE WORK TO BE DONE UNDER THESE SPECIFICATIONS AND THE DRAWINGS CONSISTS OF FURNISHING ALL EQUIPMENT, MATERIALS, LABOR AND SERVICES, AND OPERATIONS TO COMPLETE THE MECHANICAL CONSTRUCTION WORK FOR THIS PROJECT.

Table with columns: AREA SERVED, AREA (SQFT), PEOPLE/1000 SQFT, # PEOPLE, CFM/PERSON, PEOPLE O.A. REQ'D (CFM), CFM/SOFT, SOFT OUTSIDE AIR (CFM), TOTAL CFM CALCULATED, CFM SUPPLIED

Table with columns: SYSTEM, CFM

- NOTES:
1. OCCUPANCY LOAD VENTILATION RATES ARE BASED ON NET OCCUPIABLE SPACE IN ACCORDANCE WITH THE 2021 INTERNATIONAL MECHANICAL CODE, TABLE 403.3.1.1.
2. ANTICIPATED NUMBER OF PEOPLE IS BASED ON AN OCCUPANCY LOAD FACTOR (# PEOPLE/SF) VALUE (BASED ON THE 2021 INTERNATIONAL MECHANICAL CODE, TABLE 403.3.1.1).

Table with columns: TYPE MARK, MANUFACTURER, MODEL, SERVICE, DESCRIPTION, MOUNTING TYPE, MATERIAL, NECK SIZE, FACE SIZE, NOTES

- NOTES:
-NO SUBSTITUTIONS PERMITTED-
1. FOR LAY-IN CEILINGS PROVIDE WITH 18"X18" FULL FACE APPEARANCE DIFFUSER NECK. PROVIDE WITH FACTORY SQUARE TO ROUND NECK ADAPTER MODEL "SR". ROUND NECK SIZE SHALL BE EQUAL TO FLEX SIZE SERVING DIFFUSER.

OUTSIDE AIR CALCULATION

Table with columns: MARK, AREA SERVED, BASIS OF DESIGN, MANUFACTURER, MODEL, NOZZLE CFM, HP, VOLTAGE, PHASE, MOUNTING HEIGHT

- NOTES:
-NO SUBSTITUTIONS PERMITTED-
1. MOUNT INSIDE BUILDING ABOVE DOOR AT 7'-2" A.F.F. MOUNTING HEIGHT IS FROM BOTTOM OF AIR CURTAIN.

HVAC EXHAUST FAN SCHEDULE

Table with columns: MARK, CFM, EXT. STATIC PRESSURE, FAN TYPE, DRIVE TYPE, SONES, HP, RPM, VOLTAGE, PHASE, MANUFACTURER, MODEL

- NOTES:
-NO SUBSTITUTIONS PERMITTED-
1. PROVIDE WITH FACTORY DISCONNECT, FACTORY WIRED SOLID STATE SPEED CONTROLLER, 18" HIGH ROOF CURB WITH DAMPER TRAY, BACKRAFT DAMPER, AND BIRD SCREEN.

HVAC ELECTRIC HEATING UNIT SCHEDULE

Table with columns: MARK, CFM, FAN TYPE, VOLTAGE, PHASE, HEATING CAPACITY, BASIS OF DESIGN, MANUFACTURER, MODEL

- NOTES:
-NO SUBSTITUTIONS PERMITTED-
1. COORDINATE MOUNTING FRAME TYPE WITH ARCHITECTURAL DRAWINGS.

HVAC ROOF TOP UNIT SCHEDULE

Table with columns: MARK, AREA SERVED, NOMINAL TONS, SUPPLY AIR, FAN DATA, GAS HEAT, UNIT POWER, WEIGHT, MIN. UNIT NET COOLING CAPACITY, BASIS OF DESIGN, MANUFACTURER, MODEL

- NOTES:
1. PROVIDE CO2 SENSOR FOR INTERLINK WITH BUILDING AUTOMATION SYSTEM.
2. PROVIDE LENNOX HUMIDITROL HOT GAS REHEAT OPTION.

HVAC LEGEND table with columns: SYMBOL, DESCRIPTION

ABBREVIATIONS table with columns: DB°F, AC, A.F.F., BAS, BTU, CD, CFM, CO2, D, D.EER, EF, EFM, G, G.C., GFCI, HP, I.EER, IN., LBS.

RTU-1, 2, & 3 SEQUENCE OF OPERATION

- SUPPLY AIR BLOWER SPEED
UNIT HAS FOLLOWING SUPPLY AIR BLOWER SPEED SETTINGS THAT PERTAIN TO THIS INSTALLATION:
• COOLING AIR BLOWER SPEED
• HEATING AIR BLOWER SPEED

RTU-1, 2, & 3 TEST AND BALANCE NOTES

- 1. TEST AND BALANCE CONTRACTOR TO OBTAIN INITIAL BALANCE OF COOLING CFM FOR RTU USING FAN SHEAVE ADJUSTMENT TO WITHIN +/- 5% SCHEDULED COOLING CFM. PROXY CONTROLLER MAY BE USED FOR FINAL 5% TO OBTAIN SCHEDULED COOLING CFM.

Project information including: PROJECT NO. 20230288, DATE 08-31-2023, DRAWN JGF, CHECKED ESD, M3.0 logo, and contact information for JOSE J. DIAZ-VELAZQUEZ, PROFESSIONAL ENGINEER.