

MECHANICAL FLOOR PLAN
 SCALE: 1/4" = 1'-0"
 NORTH

MECHANICAL KEYED NOTES

1. ROOF MOUNTED MECHANICAL UNITS. REFER TO ROOF PLAN AND STRUCTURAL DRAWINGS FOR EXACT MOUNTING LOCATION AND SUPPORT PRIOR TO INSTALLATION.
2. TRANSITION LINED SUPPLY DUCT IN RISER TO FULL SIZE OF RTU SUPPLY OPENING. CONNECT TO FULL SIZE OF RTU SUPPLY OPENING WITH FLEX CONNECTION BELOW ROOF DECK. SEE PLAN FOR SIZE REQUIREMENTS.
3. PROVIDE RECTANGULAR ELBOW WITH DOUBLE THICKNESS TURNING VANES IN TRANSITION TO HORIZONTAL. REFER TO DETAILS ON SHEET M2.0.
4. SUPPLY AND RETURN DUCTWORK SHALL BE MOUNTED TIGHT TO BOTTOM CHORD OF STRUCTURE TO PROVIDE MAXIMUM CLEARANCE WITH CEILING AND LIGHTING. CONTRACTOR SHALL ROUTE DUCTWORK AS NEEDED TO AVOID LIGHTING AS MUCH AS POSSIBLE. FIELD COORDINATE WITH ALL OTHER DISCIPLINES PRIOR TO FABRICATION AND INSTALLATION.
5. TRANSITION LINED RETURN DUCT IN RISER TO FULL SIZE OF RTU RETURN OPENING AN CONNECT TO FULL SIZE OF OPENING WITH FLEX CONNECTION BELOW ROOF DECK.
6. CONTRACTOR SHALL MAINTAIN CODE REQUIRED 10'-0" SEPARATION OF MECHANICAL EQUIPMENT FRESH AIR INTAKE WITH ANY BUILDING EXHAUST VENTS OR OPENINGS.
7. RETURN AIR DUCT DROP WITH OPEN END. PROVIDE 1/2"x1/2" WIRE MESH SCREEN WITH FRAME AT DUCT OPENING. REFER TO DETAIL ON SHEET M2.0.
8. MANUFACTURER INSTALLED RETURN AIR SMOKE DETECTOR SHALL BE WIRED TO SHUT DOWN EACH COMPONENT OF THE HVAC SYSTEM. CONTRACTOR SHALL PROVIDE A REMOTE ALARM DEVICE SIGNAL DETECTOR LOCATED AS APPROVED BY AUTHORITIES HAVING JURISDICTION.
9. UNDERCUT DOOR 1" FOR TRANSFER AIR PURPOSES.
10. 8" EXHAUST DUCT EXTENDED AS NEEDED, WITH NO 90° ELBOWS, UP THRU ROOF TO ROOF CURB MOUNTED VENT CAP. FIELD COORDINATE ROUTING AND LOCATION TO CLEAR MANSARD ROOF FRAMING AS NEEDED. SEE DETAIL ON SHEET M2.0.
11. FURNISH AND INSTALL A SEVEN DAY PROGRAMMABLE THERMOSTAT (HONEYWELL TB-8220) WITH AUTO CHANGEOVER AND RELATED WIRING BACK TO ROOFTOP UNIT AS NEEDED. MOUNT IN LOCATION SHOWN ON PLAN SO THAT HIGHEST OPERABLE CONTROL IS NO HIGHER THAN AT 48" A.F.F. PROVIDE INSULATED SUB-BASE.
12. FURNISH AND INSTALL A REMOTE TEMPERATURE SENSOR. FIELD COORDINATE EXACT LOCATION WITH FIXTURE LAYOUT AND ALL OTHER DISCIPLINES PRIOR TO INSTALLATION. TEMPERATURE SENSOR SHALL BE WIRED BACK TO PROGRAMMABLE THERMOSTAT AS NEEDED.

GENERAL NOTES

1. REFER TO DRAWINGS AND PROJECT SPECIFICATIONS OF OTHER DISCIPLINES FOR ADDITIONAL PROJECT INFORMATION AND REQUIREMENTS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN THE INFORMATION PRESENTED AND FIELD CONDITIONS.
2. MECHANICAL SYSTEMS INSTALLATION MUST MAINTAIN INTEGRITY OF WALLS, PARTITIONS AND FLOORS DESIGNATED AS EITHER FIRE RATED OR "SMOKE TIGHT". SEAL AROUND ALL PENETRATIONS THRU RATED OR SMOKE TIGHT ASSEMBLIES. COORDINATE WITH ARCHITECTURAL PLANS AND GENERAL CONTRACTOR PRIOR TO FABRICATION AND INSTALLATION.
3. LIMITED ABOVE CEILING CLEARANCE EXIST. COORDINATE LOCATION AND ELECTION OF MECHANICAL WORK WITH ALL DUCTWORK, SPRINKLERS (IF APPLICABLE), LIGHT FIXTURE AND OTHER CEILING BUILD-IN FIXTURES. CONTACT ENGINEER OR ARCHITECT IMMEDIATELY SHOULD ANY CONFLICT ARISE.
4. ALL ROOF PENETRATIONS, PATCHING AND FLASHING SHALL BE PERFORMED BY AN OWNER APPROVED ROOFING CONTRACTOR AT THE CONTRACTOR'S EXPENSE. COORDINATE ROOF PENETRATION AND ROOFTOP EQUIPMENT LOCATION WITH OWNER, GENERAL CONTRACTOR AND DRAWINGS PRIOR TO INSTALLATION.
5. NOTHING IS PERMITTED TO BE ATTACHED TO, SUSPENDED FROM OR PENETRATE THE ROOF DECK. CONTRACTOR MAY ATTACH TO OR SUSPEND FROM THE TOP CHORD OF THE JOIST OR THE STRUCTURAL. FIELD COORDINATE WITH STRUCTURAL DRAWINGS PRIOR TO INSTALLATION.
6. COORDINATE FINAL ROOF MOUNTED EQUIPMENT LOCATIONS WITH STRUCTURAL DRAWINGS PRIOR TO INSTALLATION.
7. COORDINATE ALL THERMOSTAT AND SENSOR LOCATIONS WITH FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICES ARE TO BE INSTALLED AND WIRED BY THE HVAC CONTRACTOR MOUNT PER ADA REQUIREMENTS.
8. ALL EXPOSED DUCTWORK TO BE PAINTED. REFER TO ARCHITECTURAL PLANS.
9. CHANGES IN DUCT SIZES SHALL BE MADE BY UNIFORM TAPER SECTION WITH A MAXIMUM INCLUDE ANGLE OF DIVERGENCE OF 15 DEGREES.
10. DUCT SIZES INDICATED REPRESENT EXTERNAL SHEET METAL DIMENSIONS.
11. ALL SUPPLY AIR DUCTWORK NOT EXPOSED SHALL BE EXTERNALLY INSULATED.
12. BRANCH DUCT SERVING DIFFUSERS SHALL BE SIZED TO MATCH DIFFUSER NECK SIZE INDICATED UNLESS NOTED OTHERWISE.
13. CONTRACTOR MUST REPLACE ALL AIR FILTERS IN MECHANICAL EQUIPMENT WITH NEW CLEAN FILTERS BEFORE AIR BALANCING AND PRIOR TO FINAL TURNOVER TO TENANT.

MECHANICAL SYMBOLS LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY DUCTWORK		MANUAL VOLUME DAMPER
	RETURN DUCTWORK		FIRE DAMPER
	EXHAUST DUCTWORK		MOTOR OPERATED DAMPER
	SUPPLY DIFFUSER		FRESH AIR INTAKE
	RETURN GRILLE		TURNING VANES IN ELBOW
	EXHAUST GRILLE		SMOKE DETECTOR
	THERMOSTAT		DIFFUSER TYPE
	REMOTE SENSOR		DIFFUSER AIR QUANTITY
	SUPPLY & RETURN DUCTWORK (PLAN VIEW)		EQUIPMENT TYPE
			EQUIPMENT TAG



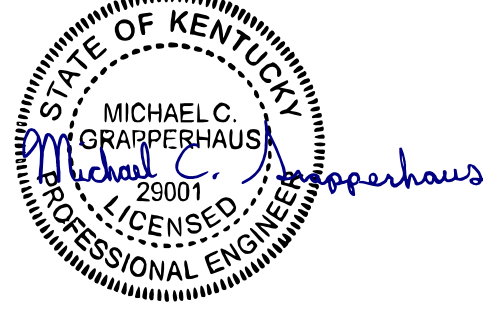
The Sherwin-Williams Company
 MIDWESTERN STORES DIVISION
 ENGINEERING/CONSTRUCTION DEPT.
 11410 ALAMEDA DRIVE
 STRONGSVILLE, OH 44149-3005
 440-846-4306 FAX 440-846-4285



SHERWIN-WILLIAMS
 2208 DECLARATION DRIVE
 INDEPENDENCE, KY 41051

No.	Description	Date

1/19/23



PROFESSIONAL OF RECORD
 MICHAEL C. GRAPPERHAUS
 License No. 29001
 Expiration Date 06/30/23

Drawn By/Checked By: SAJ / MCG
 Project Number: 2202709
 Owner Date: 01-11-23
 Permit Date: 01-19-23

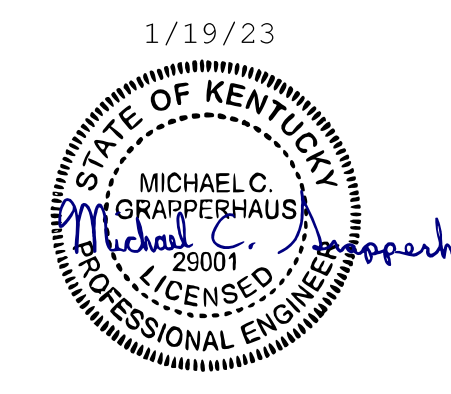
FOR CONSTRUCTION - 02/24/2023

MECHANICAL FLOOR PLAN

M1.0

CONSTR. DOC. & REVISIONS

No.	Description	Date



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FOR CONSTRUCTION - 02/24/2023
MECHANICAL SCHEDULES & DETAILS
M2.0

ROOFTOP UNIT SCHEDULE - GAS

TAG	AREA SERVED	MANUFACTURER	MODEL	NOMINAL TON	ENTERING AIR CONDITIONS	EER / SEER / IEER	SUPPLY CFM	RETURN CFM	O.A. CFM	E.S.P.	UNIT GROSS COOLING		GAS MBH		AFUE	ELECTRICAL DATA				WT.
											TOTAL	SENSIBLE	INPUT	OUTPUT		VOLTS	PHASE	MCA	MCCP	
RTU-1	SALES	CARRIER	48FCM07B	6	80°F DB 67°F WB @ 95°F AMBIENT	11.0 / --- / 15.0	2,400	2100	300	0.8	72.50 MBH	52.16 MBH	110	88	80	208	3 Ø	28	45	811 ±
RTU-2	STAGING / TINTING	CARRIER	48FCDA04B	3	80°F DB 67°F WB @ 95°F AMBIENT	--- / 14.0 / ---	1,200	1000	200	0.5	35.22 MBH	23.88 MBH	67	54	80	208	3 Ø	18	25	650 ±

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT:
LENNOX, YORK / JOHNSON CONTROLS, DAIKIN, COMFORTMAKER, AAO

- NOTES:
- REFRIGERANT - PURON
 - 14" INSULATED ROOF CURB
 - UNIT MOUNTED UNPOWERED GFCI OUTLET
 - UNIT MOUNTED NON-FUSED DISCONNECT
 - HAIL GUARDS - FIELD INSTALLED
 - RETURN AIR SMOKE DETECTOR
 - STANDARD STATIC DIRECT DRIVE - ECOBLUE
 - MERV-8 FILTERS
 - STAINLESS STEEL HEAT EXCHANGER
 - BAROMETRIC RELIEF
 - DRYBULB ECONOMIZER
 - 89° F CONDENSING TEMPERATURE
 - HONEYWELL TB-8220 THERMOSTAT. (PROVIDE REMOTE SENSOR FOR RTU-1 ONLY)
 - 5 YEAR PARTS & LABOR COMPRESSOR WARRANTY
 - 10 YEAR PARTS WARRANTY ON HEAT EXCHANGER

EXHAUST FAN SCHEDULE

MARK	SERVICE	MFR.	MODEL	TYPE	CFM	E.S.P.	HP/(WATTS)	VOLTS/PH	B.D.D.	DRIVE	OP. WT.
EF-1	RESTROOM	GREENHECK	SP-B110	CEILING	100	0.25	80 WATTS	120/1Ø	YES	DIRECT	20
EF-2	RESTROOM	GREENHECK	SP-B110	CEILING	100	0.25	80 WATTS	120/1Ø	YES	DIRECT	20

- NOTES:
- VIBRATION ISOLATORS
 - CONTROL WITH ROOM OCCUPANCY SENSOR SWITCH BY ELECTRICAL CONTRACTOR
 - AMCA SEAL AND U.L. LISTED
 - FACTORY WIRED FAN SPEED CONTROLLER
 - GRAVITY BACKDRAFT DAMPER

REGISTER, GRILLE AND DIFFUSER SCHEDULE

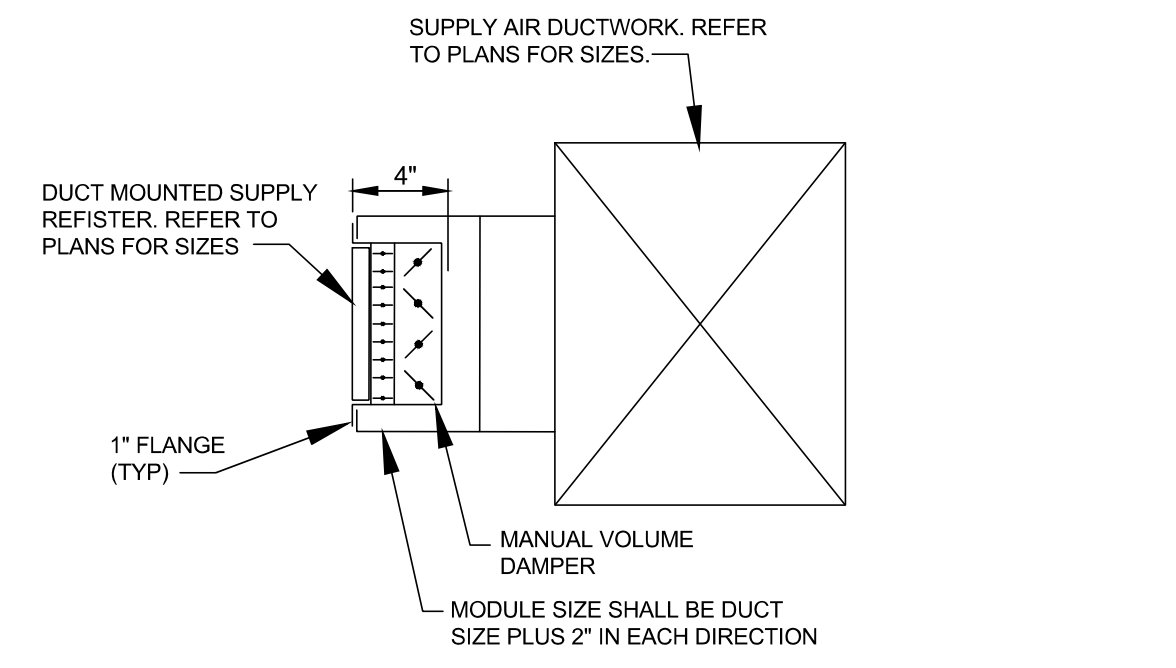
MARK	TYPE	TYPE / MODEL	CFM	FRAME	FINISH	DAMPER
S1	SUPPLY	TITUS OMNI	AS NOTED	24" x 24" LAY-IN	WHITE	---
S2	SUPPLY	TITUS 300RL	AS NOTED	NECK SIZE + 2"	WHITE	AG-15
R1	RETURN	TITUS 350RL	AS NOTED	24" x 24" LAY-IN	WHITE	D-75

NOTES:
1. DIRECTIONAL BLOW CLIPS (DB) AS REQUIRED BY INDICATIONS ON PLAN
2. PROVIDE SQUARE TO ROUND ADAPTER TO MATCH NECK SIZE AND BRANCH SIZE

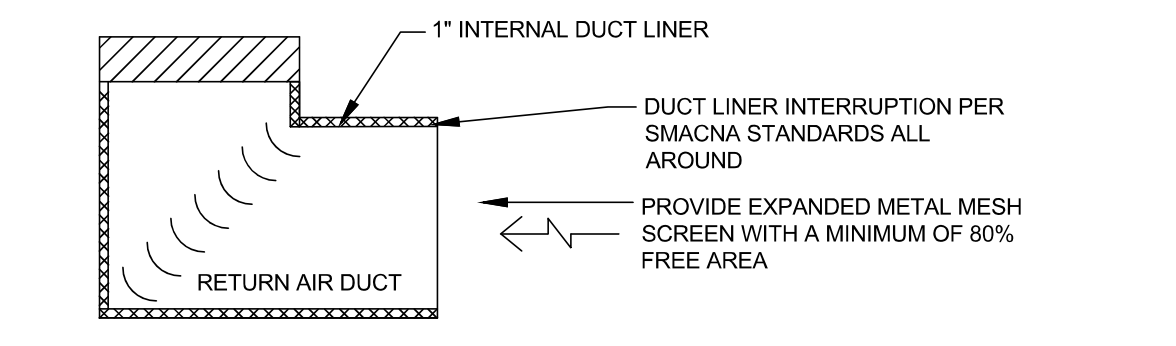
2208 Declaration Drive, Independence, KY 41051

Room	Square Footage	Occupant Dens	# of people	OA/person	OA/Sqft	OA Needed	Provided
RTU #1							
Sales Floor	1450	15	22	7.5	0.06	252	
Office	139	5	2	5	0.06	19	
Restrooms	152	0	0	0	0	0	
Total	1741					271	300
RTU #2							
Staging / Tinting Area	1567	25	0	0	0.12	189	
Total	1567					189	200
Exist RTU #3							

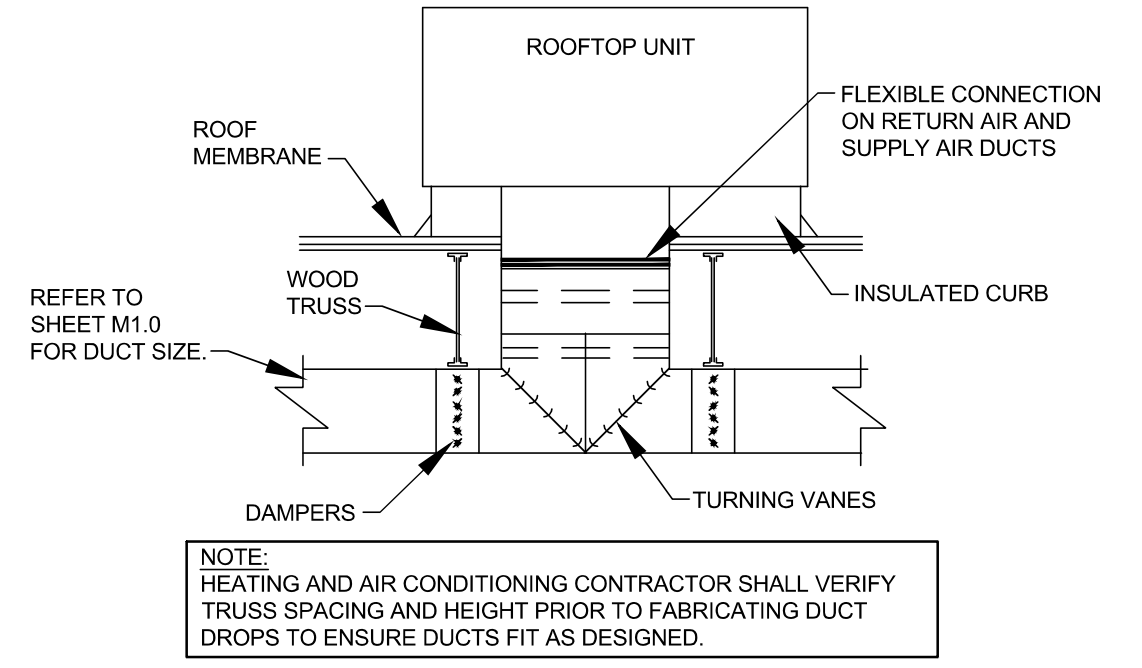
Calculation based on 2015 Kentucky Mechanical Code - Table 403.3.1.1



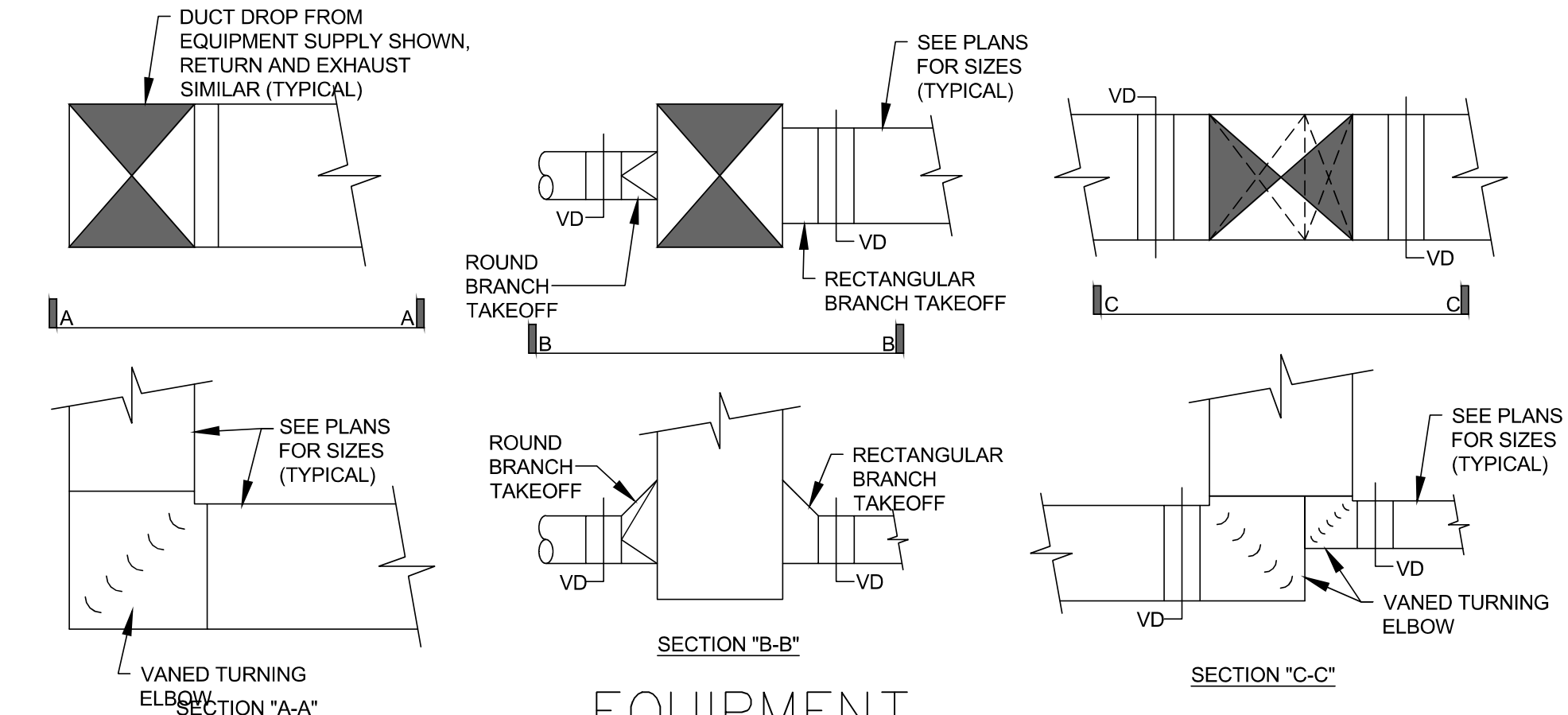
9 DUCT MOUNTED SUPPLY REGISTER DETAIL
SCALE: NONE



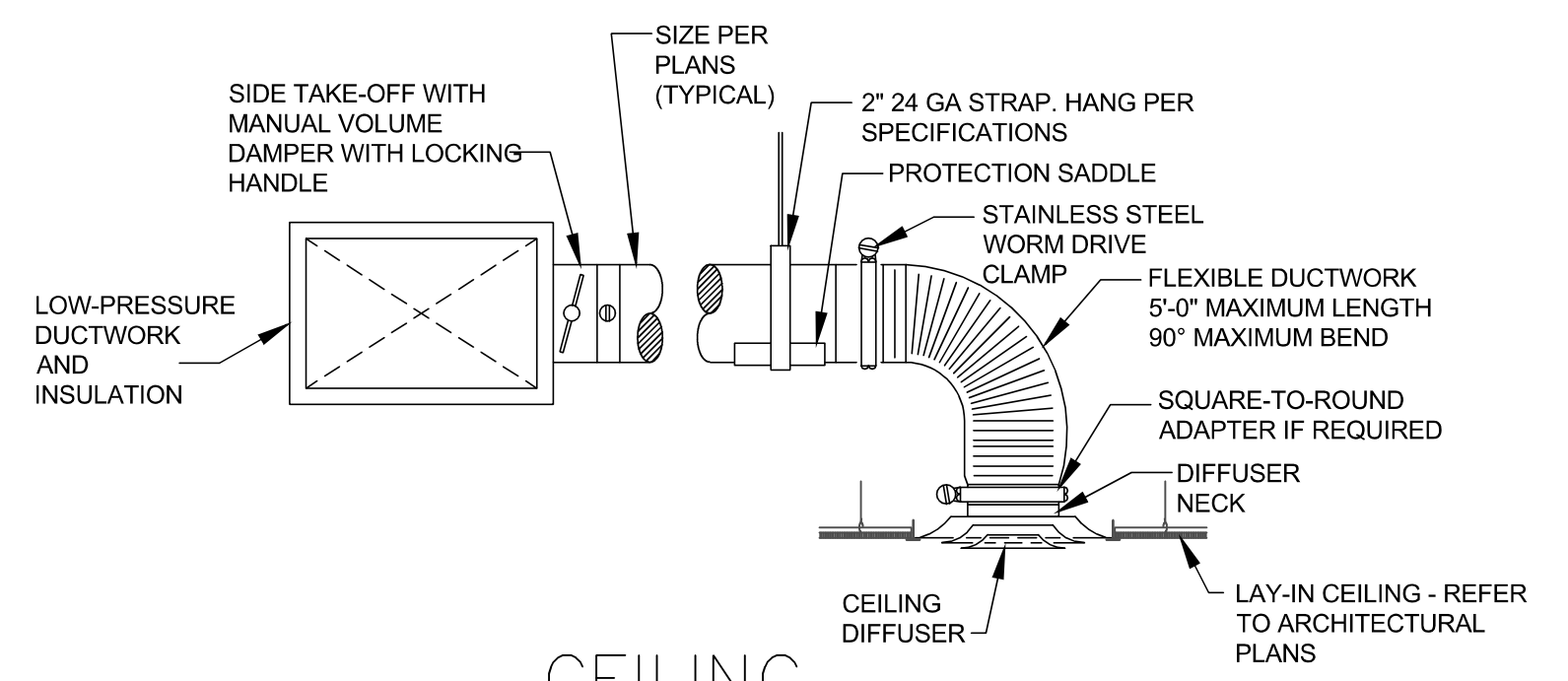
8 RETURN DUCT DETAIL
SCALE: NONE



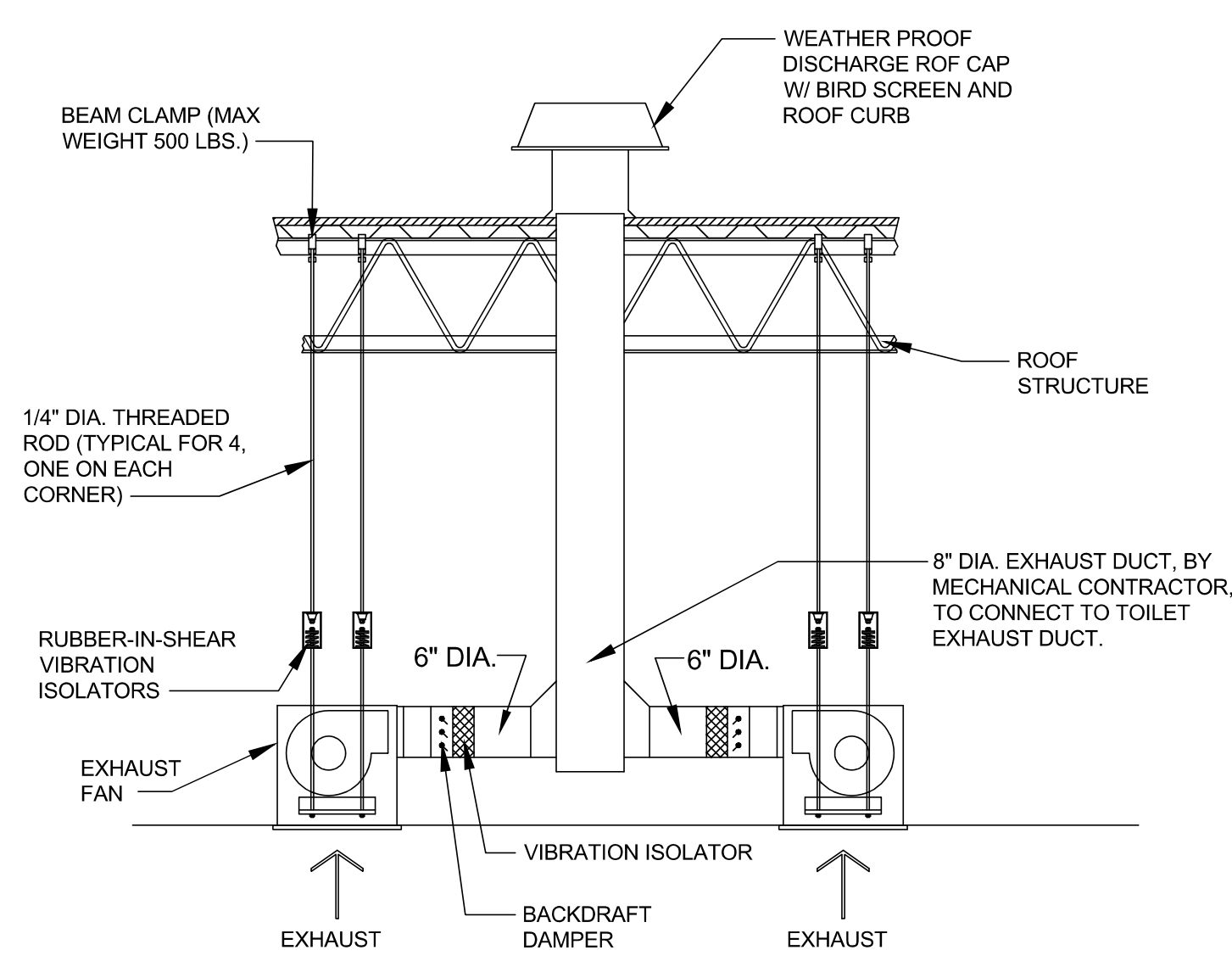
7 SUPPLY DUCT DROP DETAIL
SCALE: NONE



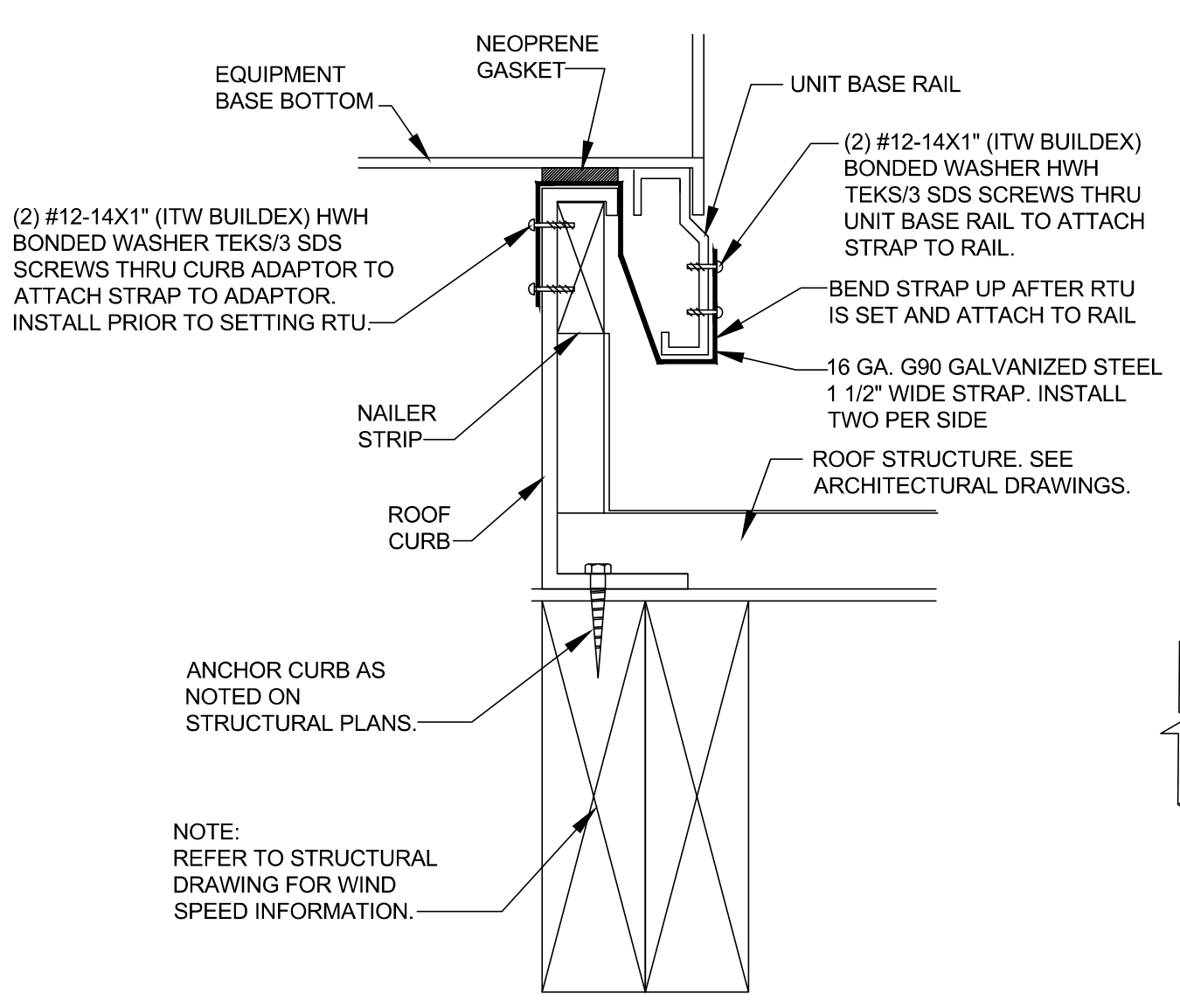
5 EQUIPMENT DUCT DROP DETAIL
SCALE: NONE



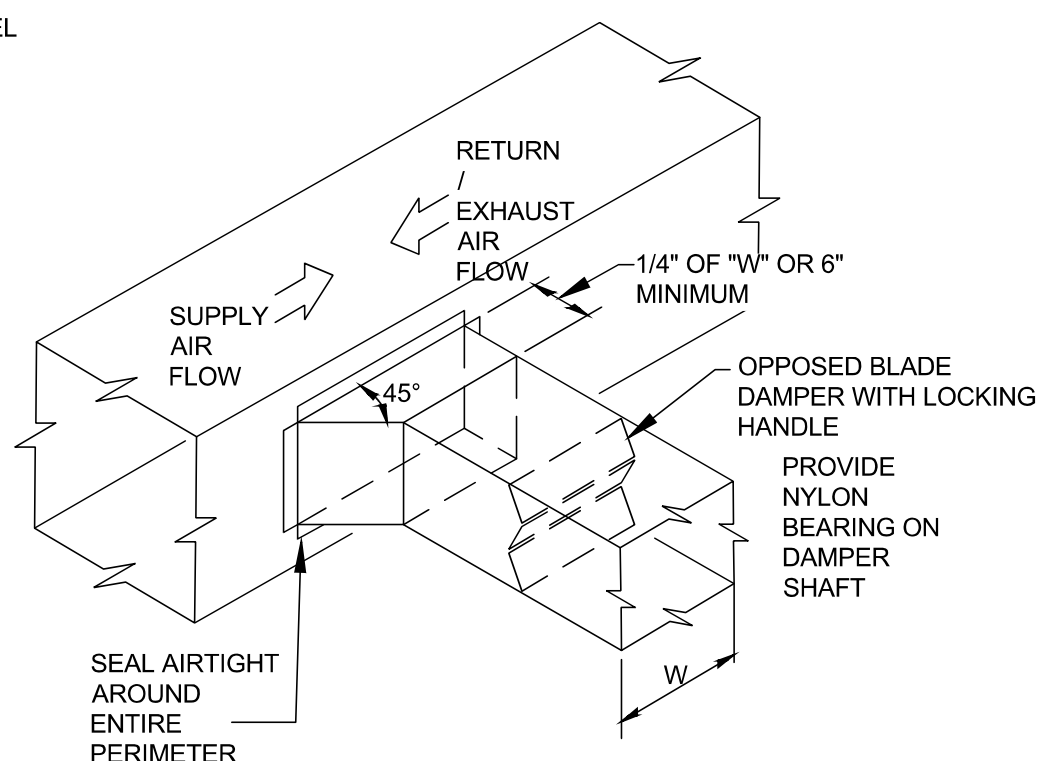
6 CEILING DIFFUSER DETAIL
SCALE: NONE



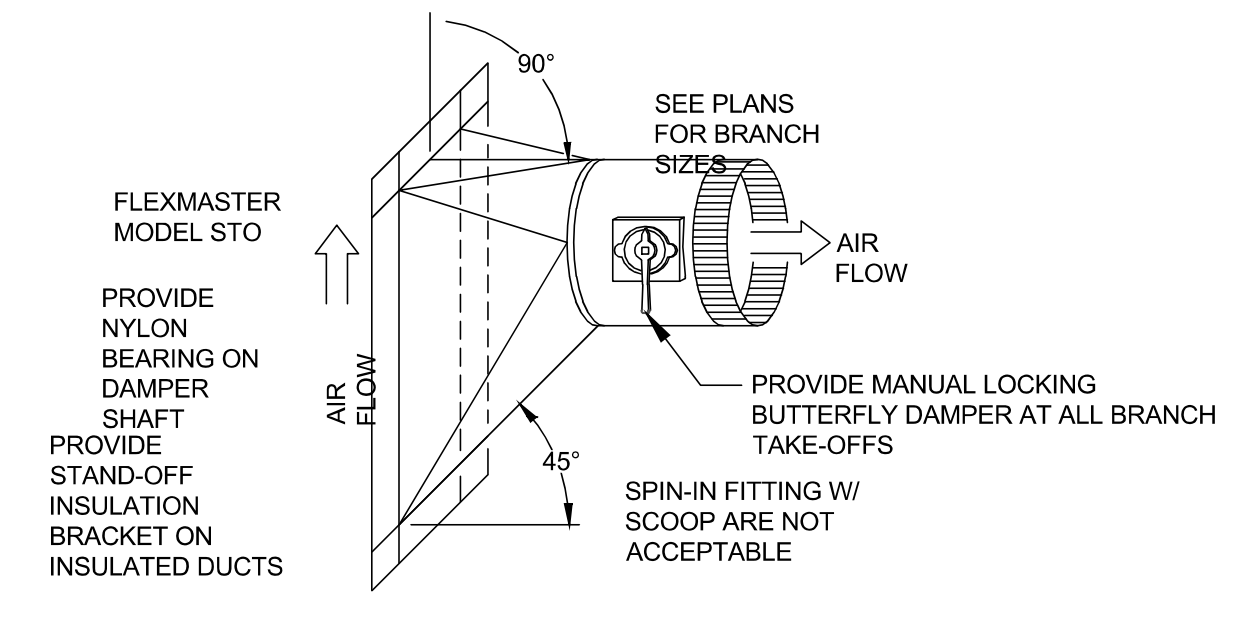
1 RESTROOM EXHAUST DETAIL
SCALE: NONE



2 ROOF CURB ATTACHMENT DETAIL
SCALE: NONE



3 RECTANGULAR BRANCH TAKE-OFF
SCALE: NONE



4 ROUND BRANCH TAKE-OFF DETAIL
SCALE: NONE

