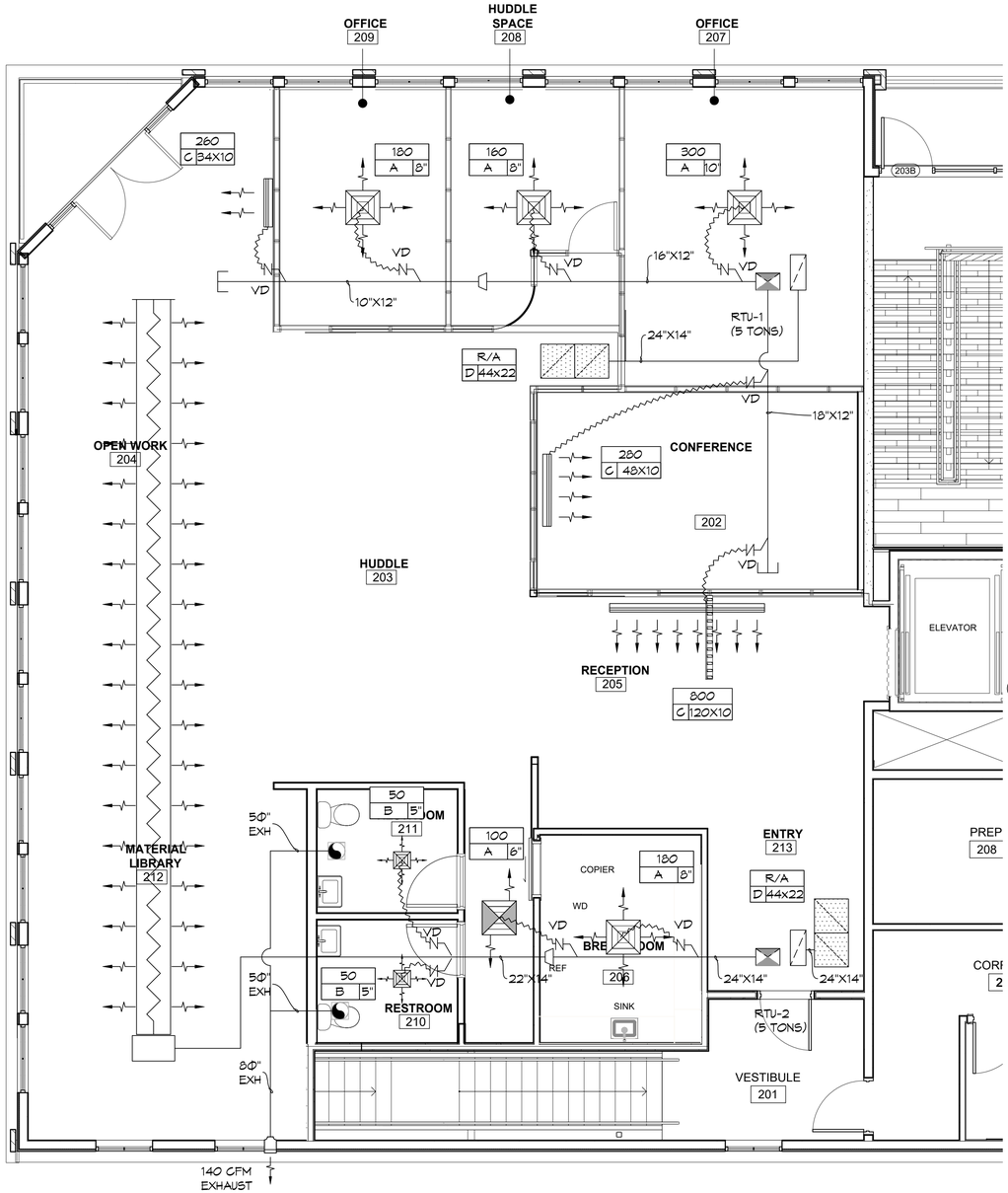
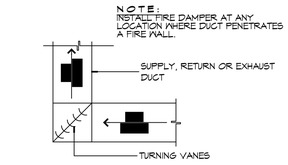
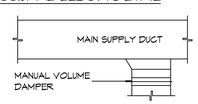


1 MECHANICAL PLAN
SCALE: 1/4"=1'-0"

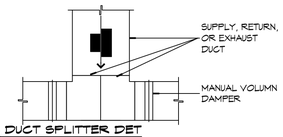
NOTE:
INSTALL FIRE DAMPER AT ANY LOCATION WHERE DUCT PENETRATES A FIRE WALL.



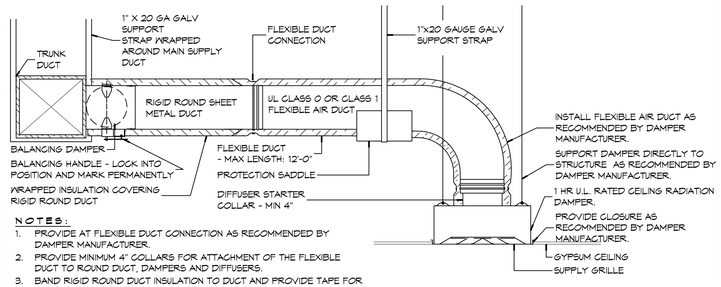
A SQUARE ELBOW DETAIL



B SUPPLY DUCT TAKE-OFF DETAIL



C DUCT SPLITTER DET



NOTES:
1. PROVIDE AT FLEXIBLE DUCT CONNECTION AS RECOMMENDED BY DAMPER MANUFACTURER.
2. PROVIDE MINIMUM 4" COLLARS FOR ATTACHMENT OF THE FLEXIBLE DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
3. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

D DIFFUSER CONNECTION DETAIL - FLEX DUCT

2 DETAILS
SCALE: N.T.S.

GENERAL HVAC NOTES

1. CONCEALED DUCTWORK TO BE GALVANIZED SHEET METAL WRAPED WITH FIBROUS GLASS DUCT WRAP WITH FSK VAPOR BARRIER, MIN R-6, INSTALLED PER SMACNA STANDARDS. DUCT WORK IMMEDIATELY DOWNSTREAM FROM AHU SHALL BE LINED FOR SOUND ATTENUATION.
2. EXPOSED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, MIN R-6. INSTALLED PER SMACNA STANDARDS.
3. ROUND FLEXIBLE DUCT TO BE UL-181, CLASS 1, AIR DUCT MATERIALS.
4. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
5. IN ALL SYSTEMS OVER 2000 CFM AND LESS THAN 15,000 CFM, SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72E IN THE RETURN DUCT DOWNSTREAM OF THE AIR HANDLING UNIT AND ALL FILTERS TO AUTOMATICALLY STOP THE FAN.
6. PROVIDE UL LISTED 125 'F' FIRESTAT IN RETURN AIR OF EACH SYSTEM UNDER 2000 CFM TO SHUT DOWN THE FAN IN THE EVENT OF FIRE.
7. PROVIDE UL RATED FIRE DAMPERS WHERE REQUIRED AT ALL DUCT PENETRATIONS OF FIRE-RATED ASSEMBLIES AND WHERE REQUIRED BY CODE, INCLUDING OUTSIDE AIR INTAKES AND EXHAUST FANS.
8. CONDENSATE DRAINS TO BE PVC PIPE RUN TO PLUMBERS P-TRAP WITHIN FIVE FEET OF AIR HANDLING UNITS.
9. ALL AIR HANDLING SYSTEMS TO BE BALANCED TO ASSURE PROPER AIR FLOWS PER PLANS.
10. ALL THERMOSTATS TO BE AUTOMATIC CHANGEOVER WITH HEAT SWITCH.
11. EXHAUST FAN SHALL BE CONTROLLED BY A SWITCH ON THE WALL IN THE SAME LOCATION AS LIGHT SWITCH(S). PROVIDE BACK DRAFT DAMPER.
12. PROVIDE AND INSTALL WATER PROOF GRILLE VENT IN PROPER ROOF LOCATION FOR PLUMBING FIXTURE EXHAUST.
13. ALL SUPPLY AIR VENTS SHALL BE EQUIPPED WITH AIR CONTROL DAMPERS AT THE REGISTER.
14. LOCATE OUTDOOR UNITS AS SHOWN ON ARCHITECTURAL DRAWINGS.
15. REFRIGERANT LINES SHALL BE SIZED BY UNIT MANUFACTURER AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
16. FRESH AIR SHALL BE SUPPLIED TO EACH AIR HANDLER THROUGH EXTERIOR WALL DUCT SUPPLIED WITH A CONTROL DAMPER.
17. ALL ELECTRICAL, MECHANICAL, AND PLUMBING PENETRATING FIRE WALLS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E8-14).
18. ALL MECHANICAL SYMBOLS ARE DRAWN DIAGRAMMATICALLY. CONTRACTOR TO VERIFY WITH OWNER LOCATIONS OF VENTS, DAMPERS, REGISTERS, ETC.
19. FLEXIBLE DUCTWORK LENGTH NOT TO EXCEED 12'-0". SUPPORT FLEX DUCT TO PREVENT SAGGING
20. REFER TO REFLECTED CEILING PLAN FOR FINAL GRILLE AND DIFFUSER LOCATIONS AND COORDINATE AS REQUIRED.
21. FINAL LOCATION OF TEMPERATURE CONTROLS TO BE COORDINATED WITH OWNER AT JOB SITE.
22. PROVIDE AND INSTALL SMOKE DETECTORS AS APPROVED BY LOCAL AHJS. PLACE NEAR R/A AND S/A OPENINGS OF AHU AND PROVIDE, WITH ACCESS PANEL, WIRING BY ELECTRICAL CONTRACTOR.
23. FRESH AIR INTAKES ARE REQUIRED TO HAVE MOTORIZED OR GRAVITY DAMPERS TO SHUT OFF WHEN SYSTEM IS NOT RUNNING.
24. PROVIDE BIRD SCREENS AT ALL EXTERIOR MECHANICAL PENETRATIONS.
25. COORDINATE WALL MOUNTED THERMOSTAT LOCATIONS WITH ALL OWNER FURNISHED ITEMS EITHER WALL MOUNTED OR FLOOR MOUNTED AGAINST PARTITIONS. REFER TO ARCHITECTURAL DRAWINGS.
26. SEE ROOF PLAN FOR ALL ROOF PENETRATIONS.
27. PROVIDE MIN 18 GA GALVANIZED SHEET METAL TO BLANK-OFF GABLE VENTS WHERE INTAKE/EXHAUST DUCTS OCCUR.

MECHANICAL LEGEND

- 24"X24" 4-WAY SUPPLY AIR GRILLE
- 3-WAY SUPPLY AIR GRILLE
- 2-WAY SUPPLY AIR GRILLE
- FIRE DAMPENER- AT EVERY FIRE RATED WALL
- ROUND FLEX DUCT, MAX. LENGTH 12'-0", MIN. R-6. DUCT SIZE AS FOLLOWS: 250 CFM TO 350 CFM = 9" 200 CFM TO 250 CFM = 8" 150 CFM TO 200 CFM = 7" 100 CFM TO 150 CFM = 6
- HVAC SUPPLY DUCT
- 12X12 SUPPLY AIR GRILLE
- 24X24 RETURN AIR FILTER GRILLE
- EXHAUST FAN
- THERMOSTAT
- IN LINE EXHAUST FAN WITH MOTOR
- DAMPER CONTROL (V.D)

CFM MARK	NECK SIZE

- 1 HR FIRE RATED WALL

DIFFUSER SCHEDULE

TAG	SERVICE	NECK SIZE	DESCRIPTION
A	Supply Air	Ref. Plan	24"x 24" Adjustable Square Cone Diffuser, Price ASCDA w/ Insulated Back Panel
B	Supply Air	Ref. Plan	12"x 12" Adjustable Square Cone Diffuser, Price ASCDA w/ Insulated Back Panel
C	Supply Air	Ref. Plan	Double Deflection Lovered Register, Price 510
D	Return Air	Ref. Plan	Perforated Face Return Air Grille, Price PAR

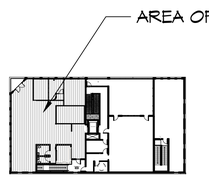
Notes:
1. Seal around perimeter of diffusers/grilles to prevent moisture migration from attic space
2. Coordinate with owner / architect for color and finish
3. R value of insulated back panels to exceed R-6

ROOFTOP UNIT SCHEDULE

TAG	MAKE	MODEL	NOMINAL TONS	TOTAL CFM	REQ'D COOLING TMBH	REQ'D COOLING SBH	Motor HP	ESP (" WC)	POWER HEAT KW	POWER VAC	PH	MCA	MOP	REMARKS
RTU #1	Daikin	DRH0603D011AXACCHLXXXX	5	2000	64.5	40.7	1	.8	12	208	3	47.8	50	1, 2, 3
RTU #2	Daikin	DRH0603D011AXACCHLXXXX	5	2000	64.5	40.7	1	.8	12	208	3	47.8	50	1, 2, 3

NOTES:
1. Provide non-fused disconnect, RA & SA smoke detectors, economizer, spare filter set, hail guard, condensate overflow switch & programmable 7/24 thermostat.
2. Cooling capacities to be rated in accordance with AHRI standard 210/290 for ASHRAE standard design weather conditions in New Orleans, LA.
3. Install units in accordance with manufacturer's recommendations.

THIS WORK SHALL MEET
ALL HVAC CODES
1. 2021 EDITION OF THE IMC
2. 2021 IECC ENERGY CODE



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REVISIONS

#	DESCRIPTION	DATE

SEAL:
STATE OF LOUISIANA
BRIAN A. MISTICH
License No. 30187
4/10/2025
PROFESSIONAL ENGINEER

OFFICE BUILDOUT
SOUTHERN INTERIOR SOLUTIONS
424 E. GIBSON STREET, SUITE 2A
COVINGTON, LA 70433

JOB No:	2512	DATE:	3-30-2025
DRAWN BY:	CCD	CHECKED BY:	CCD

SHEET TITLE:
MECHANICAL PLAN

DRAWING NUMBER:
M101

SHEET No: 17 of 7

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FILE NAME: J:\1_Offices\332 N. New Hampshire - Office Buildout - MISMATCH\Drawings\Current\M101 - Mechanical Plan.dwg PLOT DATE & TIME: Thursday, April 10, 2025 2:01:41 PM