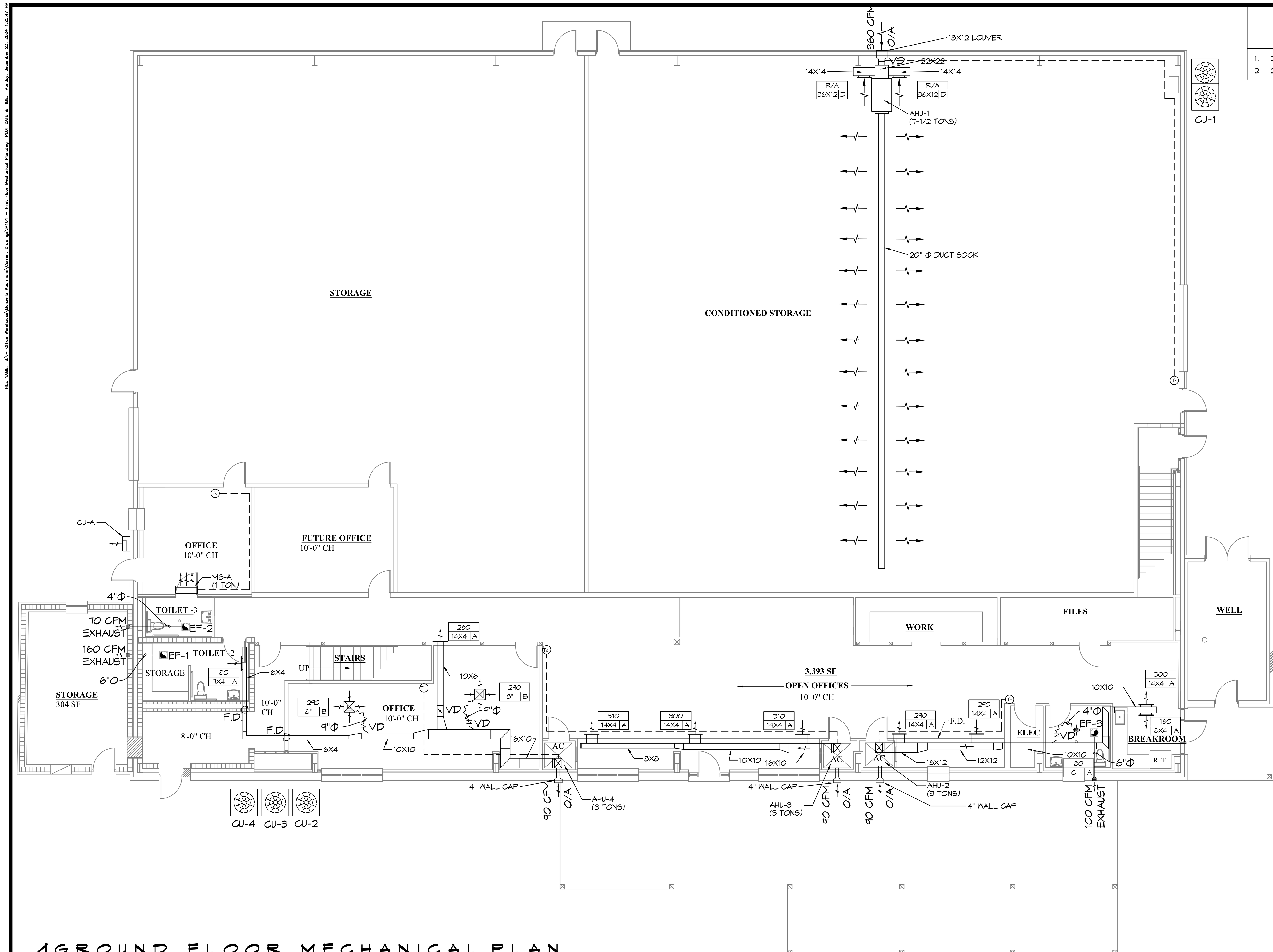


4 GROUND FLOOR MECHANICAL PLAN

SCALE: 1/8"=1'-0"

THIS WORK SHALL MEET ALL HVAC CODES

1. 2015 EDITION OF THE IMC
2. 2021 IECC ENERGY CODE

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 RTU 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 AHJ'S. 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 / NECK SIZE / MARK
- 1 HR FIRE RATED WALL

A/C SCHEDULE

AIR HANDLER															CONDENSER							
Tag	Make	Model	Nominal Tons	Total CFM	OA CFM	Cooling TMBH	Cooling SMBH	Motor HP	ESP (" WC)	Aux. Heat KW	Power VAC	Power PH	Power MCA	Power MOP	Tag	Model	Model	Power VAC	Power PH	Power MCA	Power MOP	Remarks
AHU-1	Tempstar	FAX091	7-1/2	3000	160	90	65.1	2.4	0.7	15	230	3	47.1	50	CU-1	Carrier Comfortmaker	CAS091	230	3	34.3	50	1, 2, 3, 4
AHU-2	Tempstar	FJMA4X36	3	1120	90	36	24.3	1/2	0.4	5	230	1	33.5	35	CU-2	Day & Night	N4A336	230	1	14.5	20	1, 2, 3, 4
AHU-3	Tempstar	FJMA4X36	3	920	90	36	19.9	1/2	0.4	5	230	1	33.5	35	CU-3	Day & Night	N4A336	230	1	14.5	20	1, 2, 3, 4
AHU-4	Tempstar	FJMA4X36	3	920	90	36	19.9	1/2	0.4	5	230	1	33.5	35	CU-4	Day & Night	N4A336	230	1	14.5	20	1, 2, 3, 4

NOTES:
1. Provide inlet filter box, single point power connection, expansion valve, crankcase heat, time delay relay, condensate overflow switch & programmable 7/24 thermostat with lockable cover.
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.
4. Provide new filters after commissioning and final acceptance.

DIFFUSER SCHEDULE

TAG	SERVICE	NECK SIZE	DESCRIPTION	REMARKS
A	Supply Air	Ref. Plan	Louvered Supply Register, Double Deflection w/ Damper. Price Series 520D or equal.	3
B	Supply Air	Ref. Plan	24" x 24" Square Cone Diffuser, Adjustable Pattern. Price Series SCD or equal.	1, 2, 3
C	Supply Air	Ref. Plan	12" x 12" Square Cone Diffuser, Adjustable Pattern. Price Series SCD or equal.	1, 2, 3
D	Return Air	Ref. Plan	Louvered Return Register, Fixed. Price Series 535D or equal.	3

Notes:
1. Seal perimeter of diffusers/grilles to prevent moisture migration.
2. Insulate backpanel to prevent condensation (R-6, minimum).
3. Coordinate with owner / architect for color and finish

EXHAUST FAN SCHEDULE

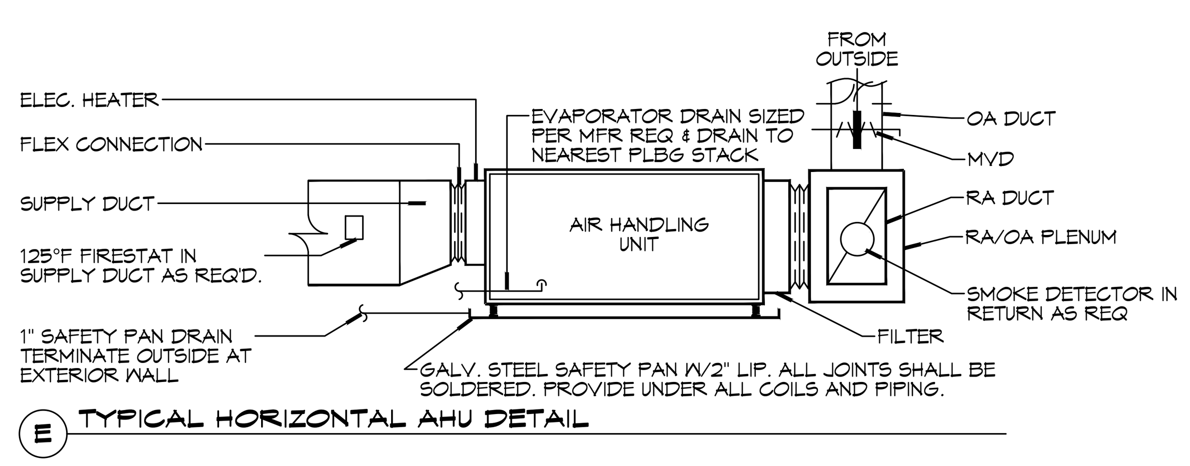
Tag	Service	Fan Airflow (CFM)	Power VAC	Power Ph	Power Amps	Make / Model	Remarks
EF-1	Restroom Exhaust	160	120	1	1.5	Broan 503 or equal	1, 2, 3
EF-2	Restroom Exhaust	70	120	1	0.4	Broan A80 or equal	1, 2, 3

Notes:
1. Fan to be interlocked with light wall switch
2. Furnish w/ ceiling grille and wall cap
3. Install in accordance with manufacturer's recommendations

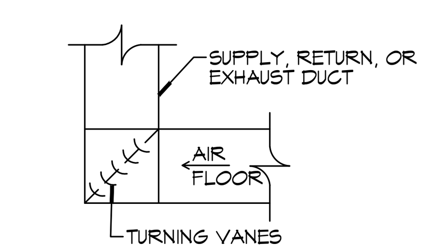
MIN-SPLIT SCHEDULE

AIR HANDLER					HEAT PUMP										
Tag	Make	Model	Airflow (CFM)	Tons (Nominal)	Tag	Make	Model	Cooling (MBH)	Cooling (MBH)	System Power VAC	System Power PH	System Power MCA	System Power MOP	Re
MS-A	Mitsubishi	SVZ-KP12NA	400.0	1.0	CU-A	Mitsubishi	MUZ-JP12WA	11.9	14.9	230	1	9.3	15	1

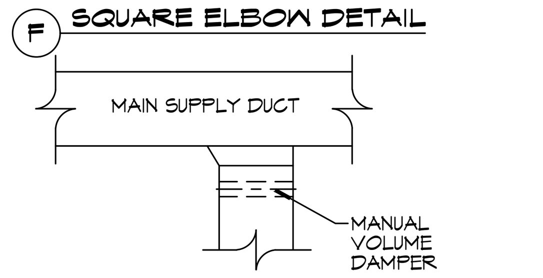
NOTES:
1. Install per Manufacturer's recommendations
2. Provide new filters after commissioning and final acceptance.
3. Furnish with condensate pump removal kit and wall mounted thermostat (Mitsubishi MHK2)



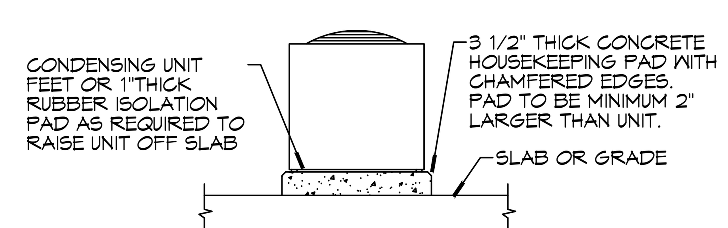
E TYPICAL HORIZONTAL AHU DETAIL



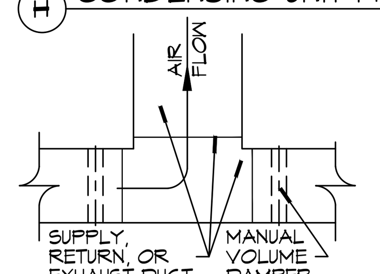
F SQUARE ELBOW DETAIL



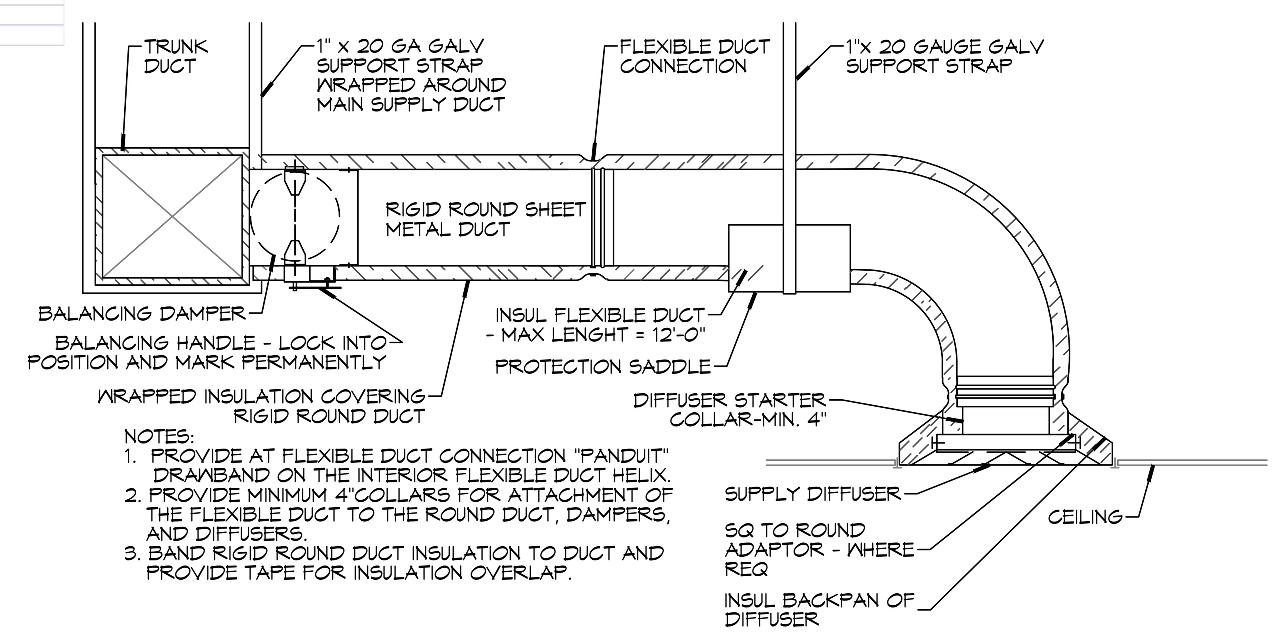
G SUPPLY DUCT TAKE-OFF DETAIL



H CONDENSING UNIT MOUNT



K DUCT SPLITTER DET



NOTES:
1. PROVIDE AT FLEXIBLE DUCT CONNECTION "PANDUIT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX.
2. PROVIDE MINIMUM 4"COLLARS FOR ATTACHMENT OF THE FLEXIBLE DUCT TO THE ROUND DUCT, DAMPERS, AND DIFFUSERS.
3. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

L DIFFUSER CONNECTION DETAIL - FLEX DUCT

5 DETAILS

SCALE: N.T.S.

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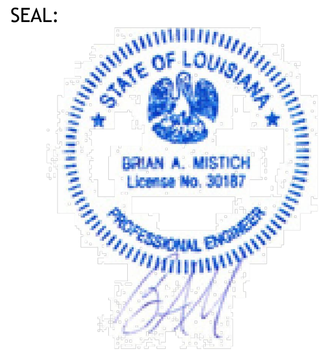
#	DESCRIPTION	DATE

REVISIONS

SEAL:



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NEW OFFICE/STORAGE

38229 MANZELLA DRIVE,
SLIDELL, LOUISIANA

DATE: 12-23-2024
JOB No:
CHECKED BY: CKD
DRAWN BY: CKD

SHEET TITLE:
FIRST FLOOR MECHANICAL PLAN

DRAWING NUMBER:
M101