FILE NAME: J:\- Commercial\Prestige Fitness Gym Diamond Head\Drawings\Working Drawings\17 - M101 - Mech Plan.dwg PLOT DATE & TIME: Thursday, April 21, 2022 2:25:54 PM

MIN-SPLIT SCHEDULE

AIR HANDLER					OUTDOOR UNIT						
Tag	Make/Model	Cooling (MBH)	Heating (BTUH)	Remarks	Tag	Make/Model	Rated Capacity (MBH)	Power VAC	Power PH	AMPS	Remarks
MS-1	Daikin FTXR09	9	9,000	1, 2 ,3	CU-1	Daikin RMXS48	48	208	1	30	1
MS-2	Daikin FTXR09	9	9,000	1, 2							
MS-3	Daikin FTXR09	9	9,000	1, 2							
MS-4	Daikin FTXR12	12	12,000	1, 2							

NOTES:
1. Install per Manufacturer's recommendations
2. Provide new filters after commissioning and final acceptance.
3. Furnish with condensate pump removal kit and pan "Safe-T" float switch

EXHAUST FAN SCHEDULE

TAG	FAN AIRFLOW (CFM)	TSP (" wc)	AMPS	TYPE	POWER VAC	PH	HZ	MAKE / MODEL	REMARKS
EF-1	70	0.2	0.4	Ceiling Exhaust	120	1	60	Broan A80	1, 2
EF-2	100	0.2	0.4	Ceiling Exhaust	120	1	60	Broan A110	1, 2
EF-3	1100	0.3	3.6	In-Line Centrifugal	120	1	60	Dayton 2RB87	1, 4
EF-4	320	0.2	4.4	Ceiling Exhaust	120	1	60	Greenheck SP-A710	1, 3
EF-5	50	0.1	0.9	Ceiling Exhaust	120	1	60	Broan 696N	1, 2

1. Install per manufacturer's recommendations
2. Interlock with light switch
3. Continuous operation
4. Interlock with AHU

SPLIT SYSTEM HEAT PUMP SCHEDULE

AIR HANDLER																	HEAT PUMP						
TAG	AREA SERVED	TRANE AIR HANDLER MODEL NO.	NOMINAL TONS	TOTAL CFM	OA CFM	COOLING TMBH	SMBH	EDB	EWB	Motor HP	ESP (" WC)	AUX. HEAT KW	POWER VAC	PH	Hz	MCA	TAG	TRANE HEAT PUMP MODEL NO.	POWER VAC	PH	Hz	RLA	REMARKS
AHU-1	Gym	TWE240B3	20	8700	1270	221.3	151.6	74.1	65.6	5	0.6	14.9	208	3	60	64	CU-1	TWA240B3	Single Point Connection				1, 2, 3, 4
AHU-2	Physical Therapy	TWE090A3	7.5	2910	460	88.8	61.2	77.2	66.7	1.5	0.4	7.5	208	3	60	37	CU-2	TWA090A3	Single Point Connection				1, 2, 3, 4
AHU-3	P.J.'s Coffee	TWE090A3	7.5	2700	160	72.7	62.9	79.6	65.6	1.5	0.4	7.5	208	3	60	37	CU-3	TWA090A3	Single Point Connection				1, 2, 3, 4
AHU-4	Reception	4TWA4060	5	1970	280	58.1	41	77.5	66.7	1/2	0.4	5.7	208	1	60	43	CU-5	4TWA4060	208	3	60	7.1	1, 2, 3, 4

NOTES:
1. Cooling capacities to be rated in accordance with AHRI standard 210/290 for ASHRAE standard design weather conditions in New Orleans, LA.
2. Provide inlet filter box, time delay relay, condensate overflow switch & programmable 7/24 thermostat with lockable cover.
3. Install units in accordance with manufacturer's recommendations.
4. Provide new filters after commissioning and final acceptance.

DIFFUSER SCHEDULE

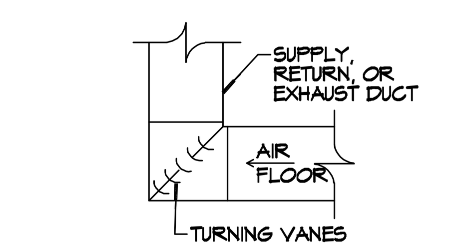
TAG	SERVICE	NECK SIZE	DESCRIPTION	REMARKS
A	Supply Air	Ref. Plan	24"x 24" Adjustable Square Cone Diffuser, Price ASCDA w/ Insulated Back Panel	1, 2, 3
B	Supply Air	Ref. Plan	12"x 12" Adjustable Square Cone Diffuser, Price ASCDA w/ Insulated Back Panel	1, 2, 3
C			Not Used	
D	Return Air	Ref. Plan	24" X 24" Perforated, Ducted Return, Titus PAR	1, 2, 3
E	Return Air	Ref. Plan	12" X 12" Perforated, Ducted Return, Titus PAR	1, 2, 3
F	Exhaust	Ref. Plan	Aluminum Eggcrate Grille, Price Series 80	1, 2, 3
G	Supply Air	Ref. Plan	16" x 4" Spiral Duct Register, Price Series SDGE	1, 2, 3

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

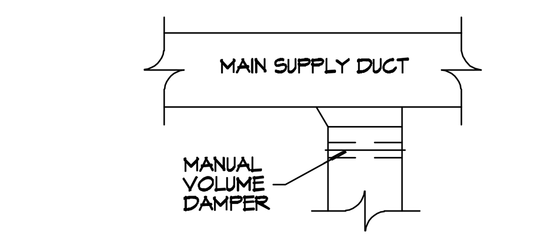
POOL FAN SCHEDULE

MK	SIZE	CFM	POWER TYPE	VOLTS	PART NUMBER	REMARKS
F1	24"Φ	4800	PLUG - IN	140V	DHS-YDHF-MNT24	EXTERIOR WALL MOUNTED FAN

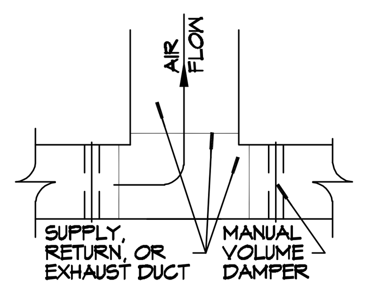
TYPICAL DETAILS



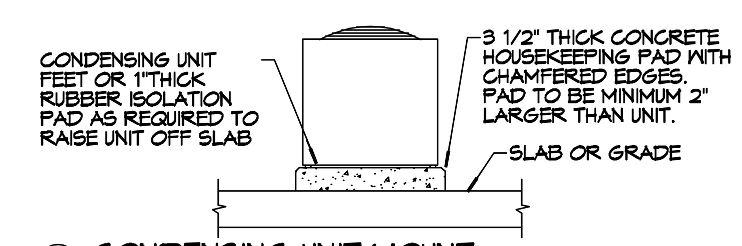
A SQUARE ELBOW DET



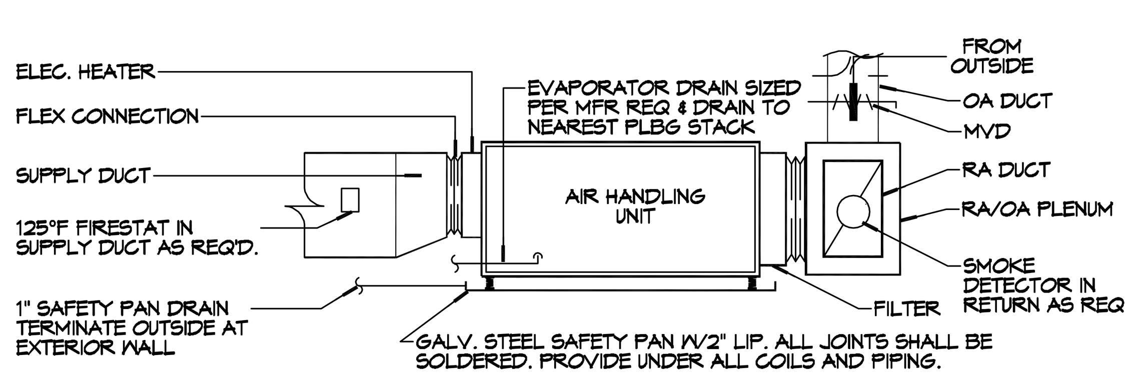
B SUPPLY DUCT TAKE-OFF DET



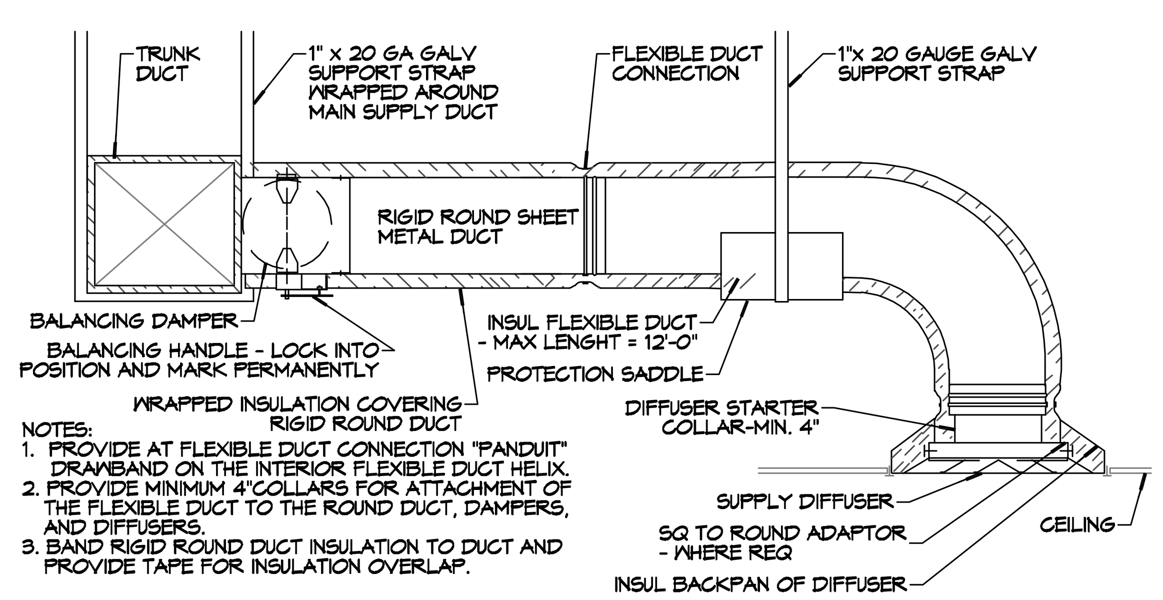
C DUCT SPLITTER DET



D CONDENSING UNIT MOUNT



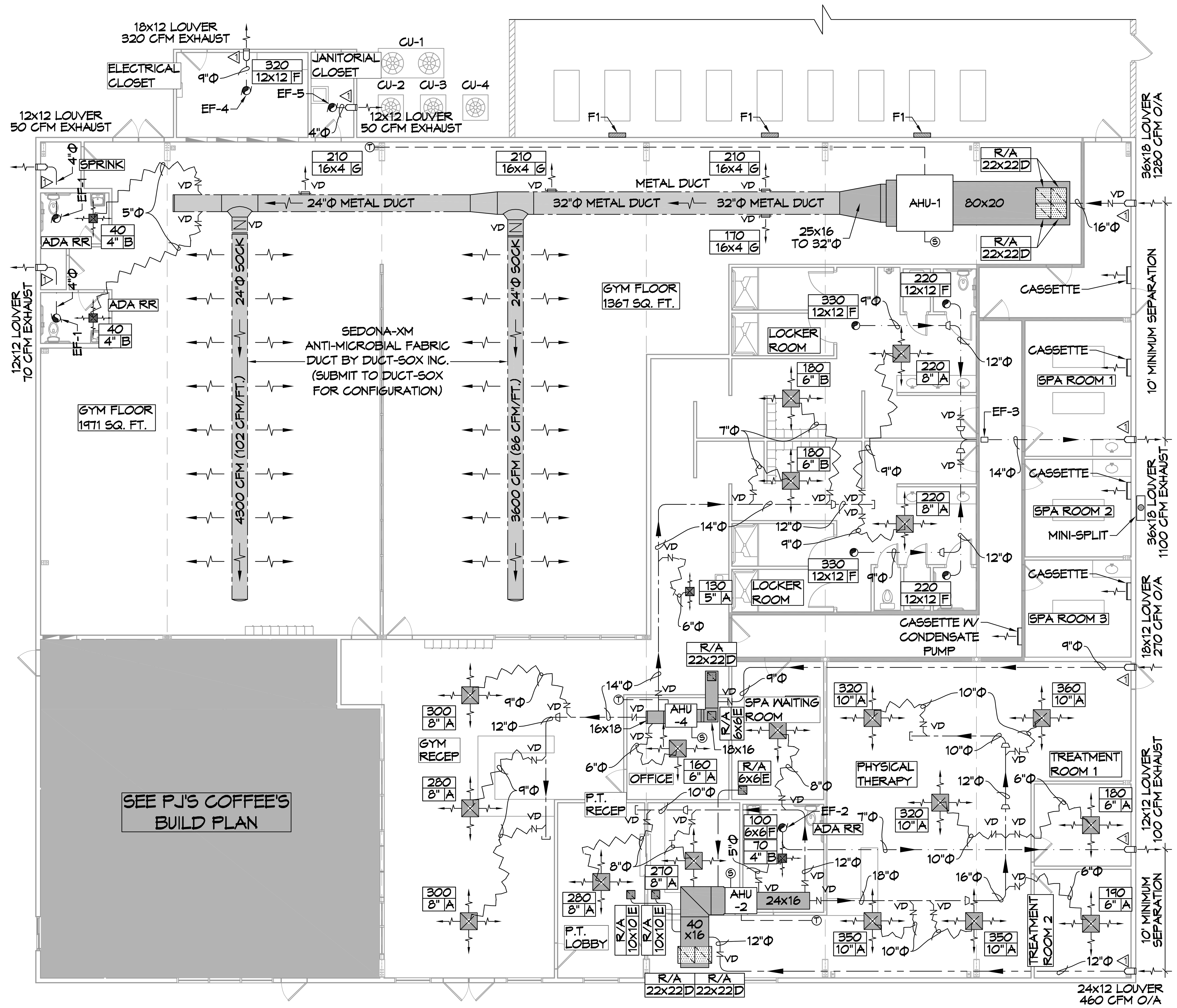
E TYPICAL HORIZONTAL AHU DETAIL



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.

F DIFFUSER CONNECTION DETAIL - FLEX DUCT

TYPICAL DETAILS
SCALE: N.T.S.



38 MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

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.

HVAC LEGEND

- 4-WAY SUPPLY AIR GRILLE
- 2-WAY SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- AIR SUPPLY VENT
- 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
- CFM / NECK SIZE / MARK
- EXHAUST FAN
- EXHAUST VENT (WITHOUT BUILT IN FAN)
- THERMOSTAT
- SMOKE DETECTOR
- VD DAMPER CONTROL
- MINI-SPLIT CASSETTE
- EXTERIOR WALL MOUNTED FAN
- SLOT DIFFUSER
- RETURN AIR
- SUPPLY AIR
- EXHAUST AIR

NOTES

1 RUSKIN HZ700 OR EQUAL EXTREME PERFORMANCE 6063T6 ALUMINUM LOUVER WITH SCREEN (AMCA 540 / 550)

DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI
Chief Engineer: Brian Mistich, PE
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985.649.5832

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NEW ATHLETIC CLUB
PRESTIGE FITNESS CLUB AND SPA
4422 KALANI DRIVE
HANCOCK COUNTY, MISSISSIPPI

JOB No:
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SHEET TITLE:
MECHANICAL PLAN

DRAWING NUMBER:
M101