

MAIN FLOOR MECHANICAL PLAN
SCALE: 3/16"=1'-0"

H.V.A.C. GENERAL NOTES:

1. THE WORK THAT IS TO BE DONE UNDER THIS HEADING INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, PERMITS, FEES INSPECTIONS, TESTS, INSURANCE, ETC. REQUIRED FOR THE COMPLETION OF THE AIR CONDITIONING SYSTEM SHOWN ON THE DRAWINGS AND/ OR LISTED BELOW.
2. VENTILATION DUCTWORK SHALL BE GALVANIZED STEEL WITH 30 GAUGES, DUCT CONSTRUCTION, BRACING AND SUSPENSION IN ACCORDANCE WITH THE RECOMMENDATIONS SET FORTH IN THE LATEST EDITION OF THE A.S.H.R.A.E. GUIDE AND S.M.A.C.N.A. STANDARDS. DUCT SIZES SHOWN ARE "INSIDE" DIMENSIONS. VERIFY EXACT LOCATION OF DUCT WITH RESPECT TO STRUCTURE BEFORE FABRICATION.
3. FLEXIBLE DUCT SHALL BE STEEL HELIX WIRE ON 7/8" CENTERS, ENCAPSULATED IN A CONTINUOUS SOFT VINYL FILM, JOINED BY MOLECULAR WELDING TO FORM AN AIR TIGHT INNER CORE, THE JOINT IS TO BE INSULATED WITH FIBERGLASS INSULATION (R-6), AND SHEATHED IN A REINFORCED, ALUMINUM METALIZED POLYESTER VAPOR BARRIER JACKET.
4. AIR CONDITIONING SUPPLY AND RETURN DUCTWORK RUNNING IN ATTIC SPACE SHALL BE 1-1/2" (R=6 MIN.) FIBERGLASS U.L.L. 181 LISTED, CLASS 1 AIR DUCT. DUCTWORK SHALL BE FABRICATED IN ACCORDANCE WITH S.M.A.C.N.A. STANDARDS. DUCTWORK SHALL BE FACED ON ONE SIDE WITH A FIRE-RESISTANT FOIL-SCRM-KRAFT (FSK) VAPOR RETARDER, AND ITS AIRSTREAM SURFACE SHALL BE FACED WITH A TIGHTLY BONDED NON-WOVEN MAT. AIRSTREAM SURFACE MAT FACING SHALL BE TREATED WITH AN EPA-REGISTERED ANTI-MICROBIAL AGENT TO AID IN THE PREVENTION OF FUNGAL AND BACTERIAL GROWTH.
5. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION AND IN STRICT COMPLIANCE WITH ALL APPLICABLE CODES AND STANDARDS.
6. SUBMIT SHOP DRAWING OF ALL MATERIALS AND EQUIPMENT FOR APPROVAL PRIOR TO FABRICATION.
7. UNDERCUT 1 INCH ALL INTERIOR DOORS.
8. CUT ALL OPENINGS AND CHASES REQUIRED TO ACCOMMODATE THE WORK UNDER THIS DIVISION, AND REPAIR ALL FLOORS, WALLS, ETC., DAMAGED BY SUCH CUTTINGS. ALL WORK DONE UNDER THIS HEADING MUST CONFORM IN EVERY RESPECT TO FINISH AND QUALITY OF MATERIALS AND WORKMANSHIP SPECIFIED UNDER APPROPRIATE SECTIONS FOR THE BUILDING.
9. TEMPERATURE CONTROL SHALL BE PROGRAMMABLE THERMOSTAT HONEYWELL PRO-8000
10. DUCT LOCATIONS MAY CHANGE DUE TO FIELD CONDITIONS
11. DUCTWORK IN UNCONDITION SPACE SHALL BE R=6.0
12. ALL CONDENSATE PIPING SHALL BE PVC SCHEDULE 40. INSULATE COND. PIPES ABOVE GROUND WITH 1/2 INCH ARMAFLEX INSULATION.
13. ALL CONDENSING UNITS AND AIR HANDLING UNITS SHALL BE MOUNTED ABOVE FLOOD CRITERIA.
14. REMOTE (RS) SENSOR TEMPERATURE SHALL BE INSTALLED 6' A.F.F.
15. PROVIDE 3 SET OF REPORT SIGN AND SEALED BY A PROFESSIONAL ENGINEER.

PALMETTO BAY, FL 33157

DRAWN BY: Oby

REVISIONS:

- 1
- 2
- 3

MECHANICAL PLAN

M1.0

HVAC EQUIPMENT:
RHEEM 4 TON 15.5 SEER, AHRI ref : 7512188
ODU-1: RA1648AJ1NA
IDU-1: RH1T4824STANJA,
ELECTRICAL SPECIFICATIONS:
 208/230 V; 1 PH; 60 HZ; MCA = 25 AMPS; MOC = 40 AMPS

DESIGN CONDITION SCHEDULE		
OUTDOOR DRY BULB TEMPERATURE (°F)	INDOOR DRY BULB TEMPERATURE (°F)	INDOOR WET BULB TEMPERATURE (°F)
91	75	63

HEATING/COOLING LOAD CALCULATIONS:
 HEATING AND COOLING CALCULATION WERE DETERMINED USING HEATING COOLING LOAD CALCULATION SOFTWARE UTILIZING ACCA MANUAL J 8th EDITION.

EQUIPMENT SIZING				
UNIT	CALC'D COOLING	COOLING PROVIDED	+/- SIZING PERCENTAGE	COMPLY (YES/NO)
SYSTEM-1	45763	45359	-1%	YES

EXHAUST FANS:
EF-1: PANASONIC MODEL FV-05-11VKS2 VENTILATION FAN, 80 CFM, 0.3 SONES AT 0.10" PS, 120V, 0.06 AMPS (ENERGY STAR RATED)
EF-2: PANASONIC MODEL FV-05-11VKS2 VENTILATION FAN, 110 CFM, 0.3 SONES AT 0.10" PS, 120V, 0.06 AMPS (ENERGY STAR RATED)

GRILLS AND REGISTER SCHEDULE: HART AND COOLEY OR EQUAL

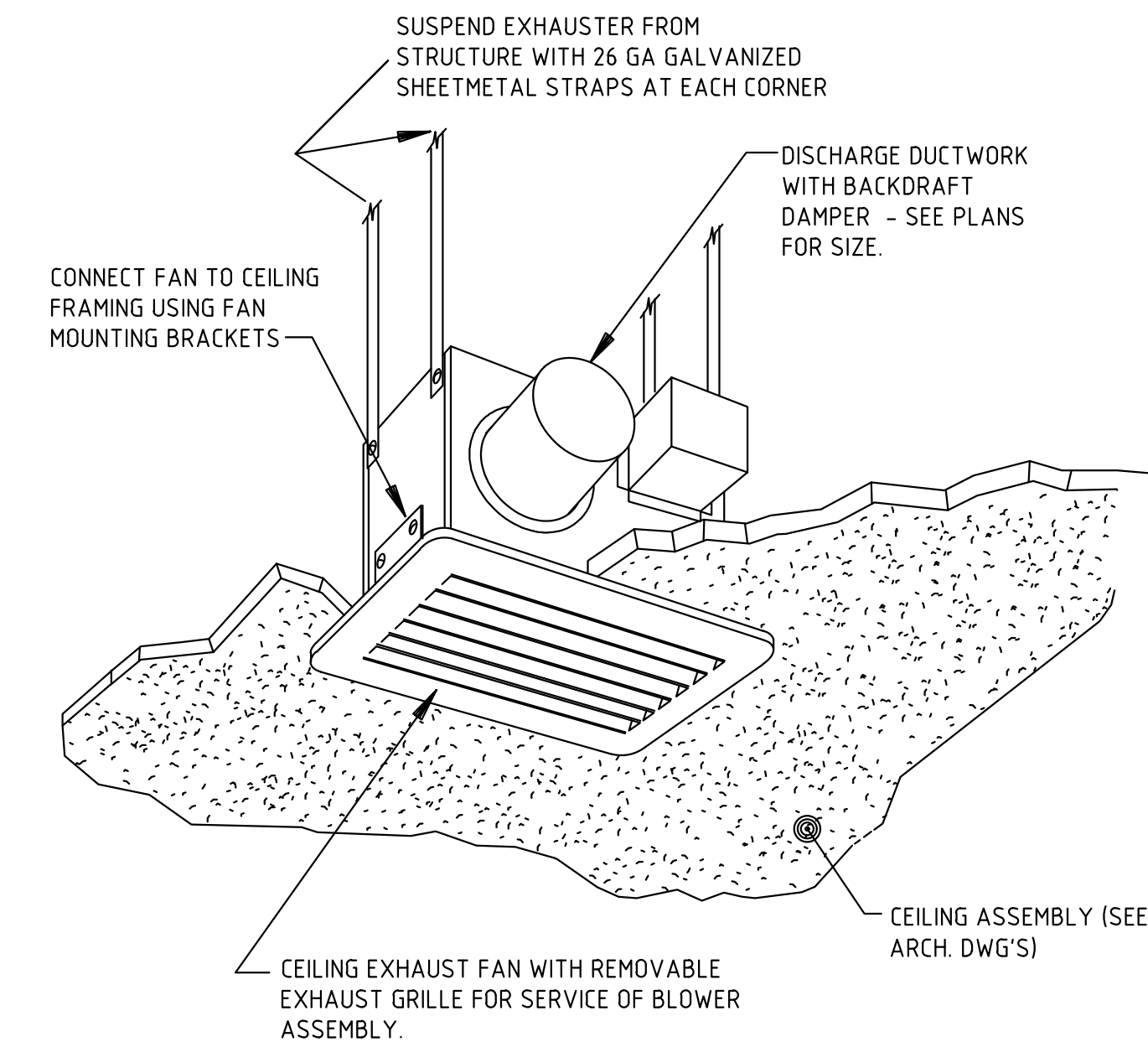
NO.	MANUFACTURER	MODEL NO	SIZE	REMARKS
SR-1	HART AND COOLEY	821	AS SHOWN	CEILING DIFFUSER
RG-1	HART AND COOLEY	650	AS SHOWN	CEILING RETURN GRILL
RG-2	HART AND COOLEY	659	AS SHOWN	SIDE WALL RETURN GRILL

VENTILATION CALCULATIONS

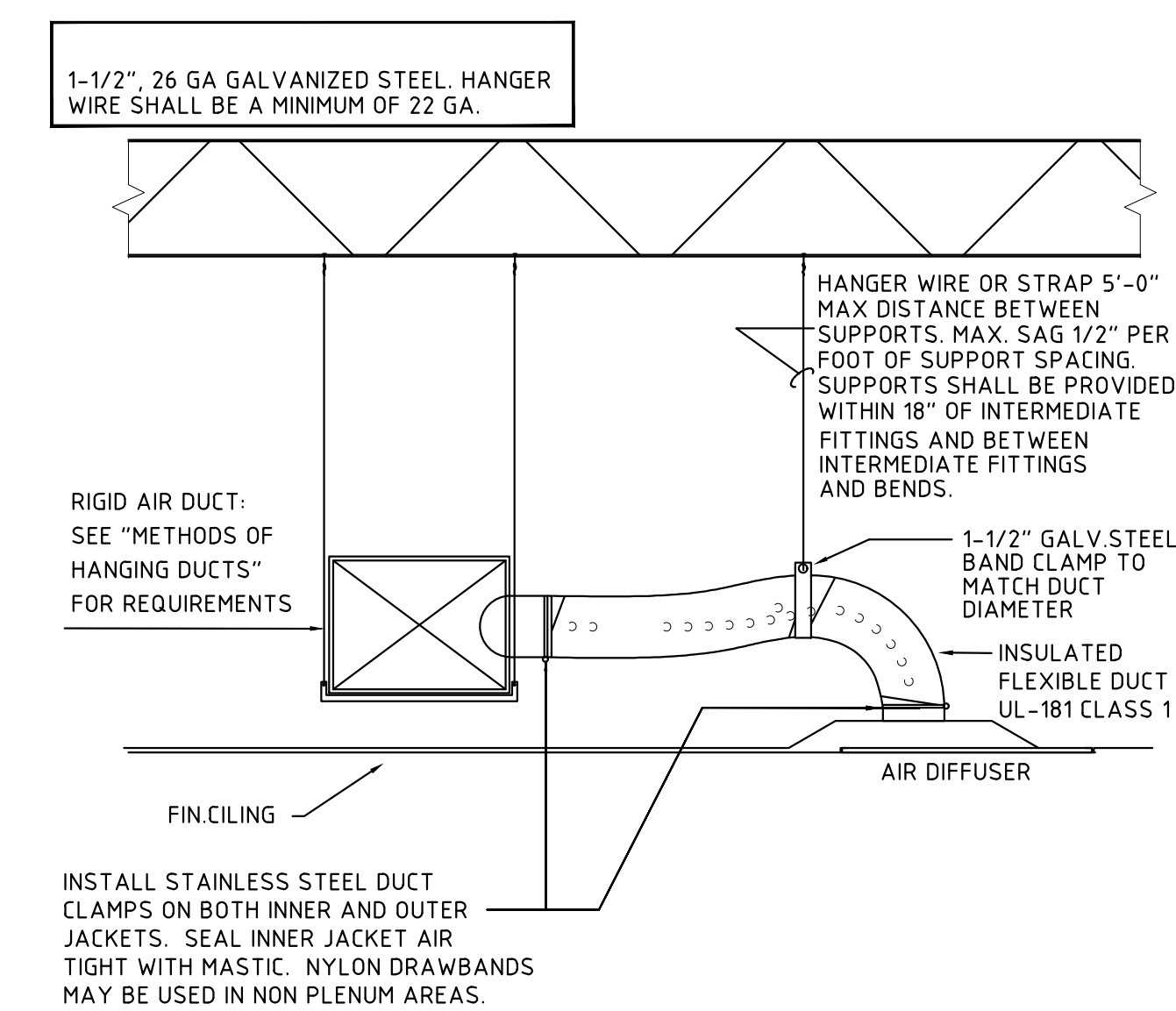
TABLE M1507.3.3(1)
 CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS

DWELLING UNIT FLOOR AREA (square feet)	NUMBER OF BEDROOMS				
	0-1	2-3	4-5	6-7	>7
< 1,500	30	45	60	75	90
1,501 - 3,000	45	60	75	90	105
3,001 - 4,500	60	75	90	105	120
4,501 - 6,000	75	90	105	120	135
6,001 - 7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

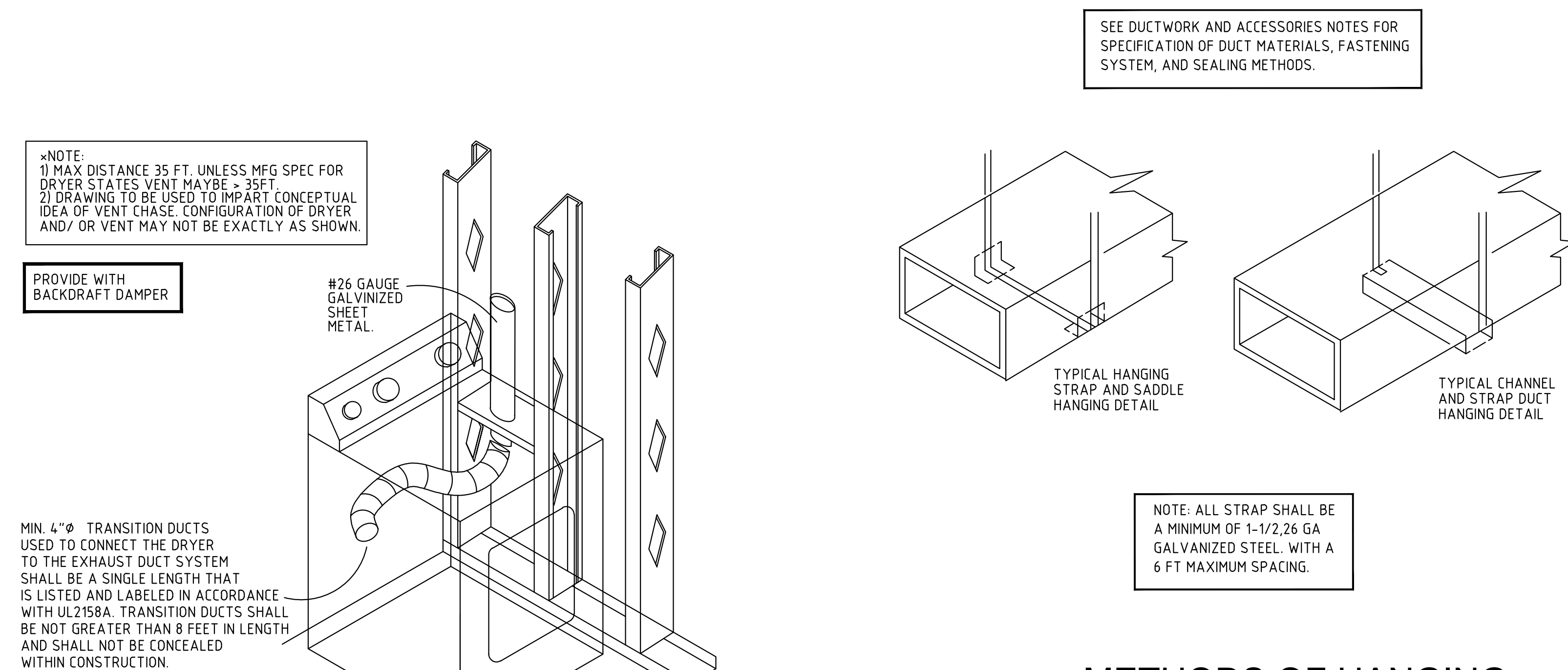
MAIN HOUSE
 DWELLING TOTAL FLOOR AREA = 2100 SF
 NUMBER OF BEDROOMS = 3
 EACH INTAKE SHALL BE BALANCED TO 100 CFM. SINCE PROVIDED AIR EXCEEDS THAT REQUIRED. HOURLY RUNTIME CAN BE REDUCED;
 VENTILATION HOURLY RUNTIME
 MECHANICAL VENTILATION REQUIRED (PER TABLE M1507.3.3(1))
 IDU 1 = 60 CFM / 100 CFM X 60 MINUTES = 36 MINUTES



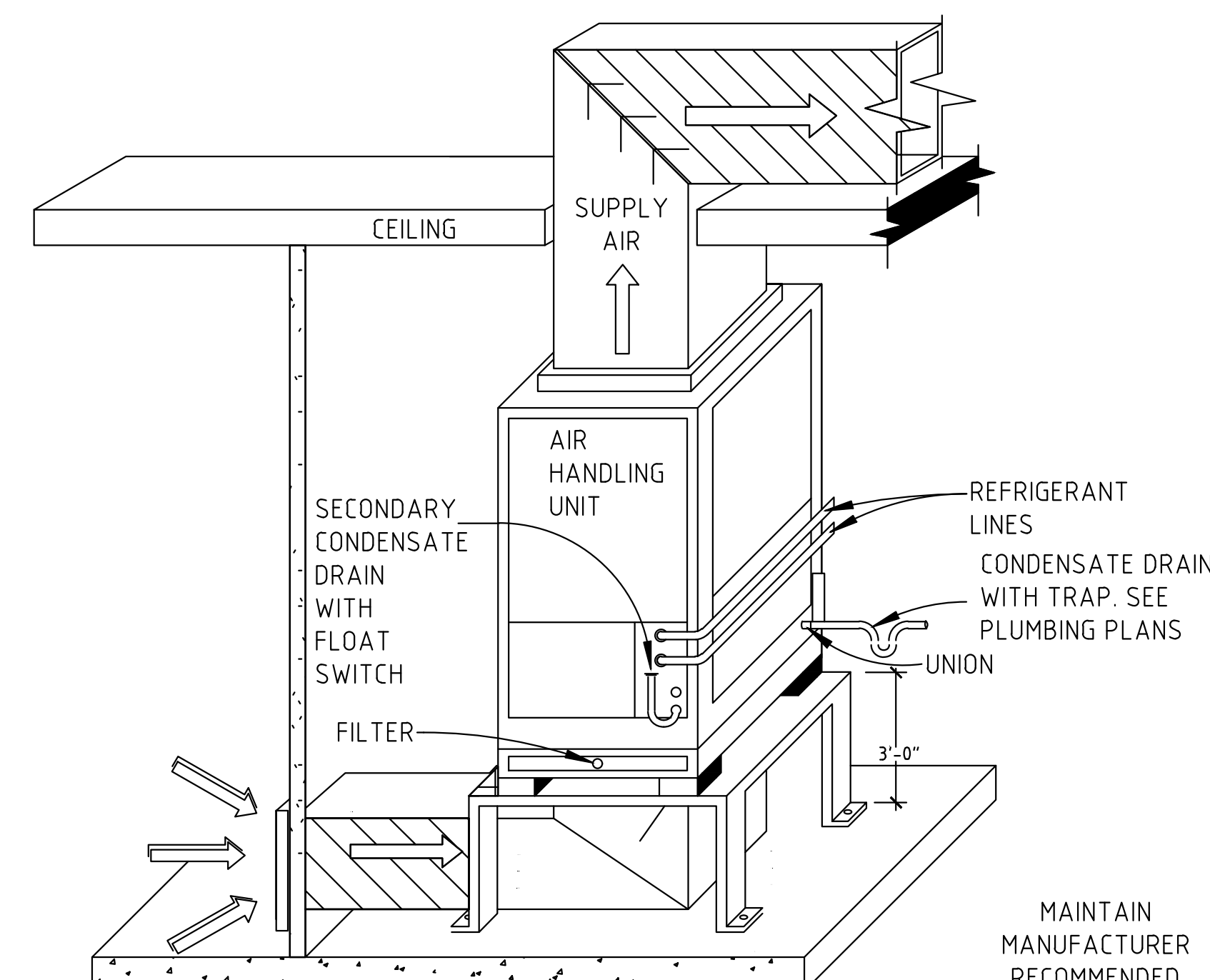
CEILING MOUNTED FAN DETAIL



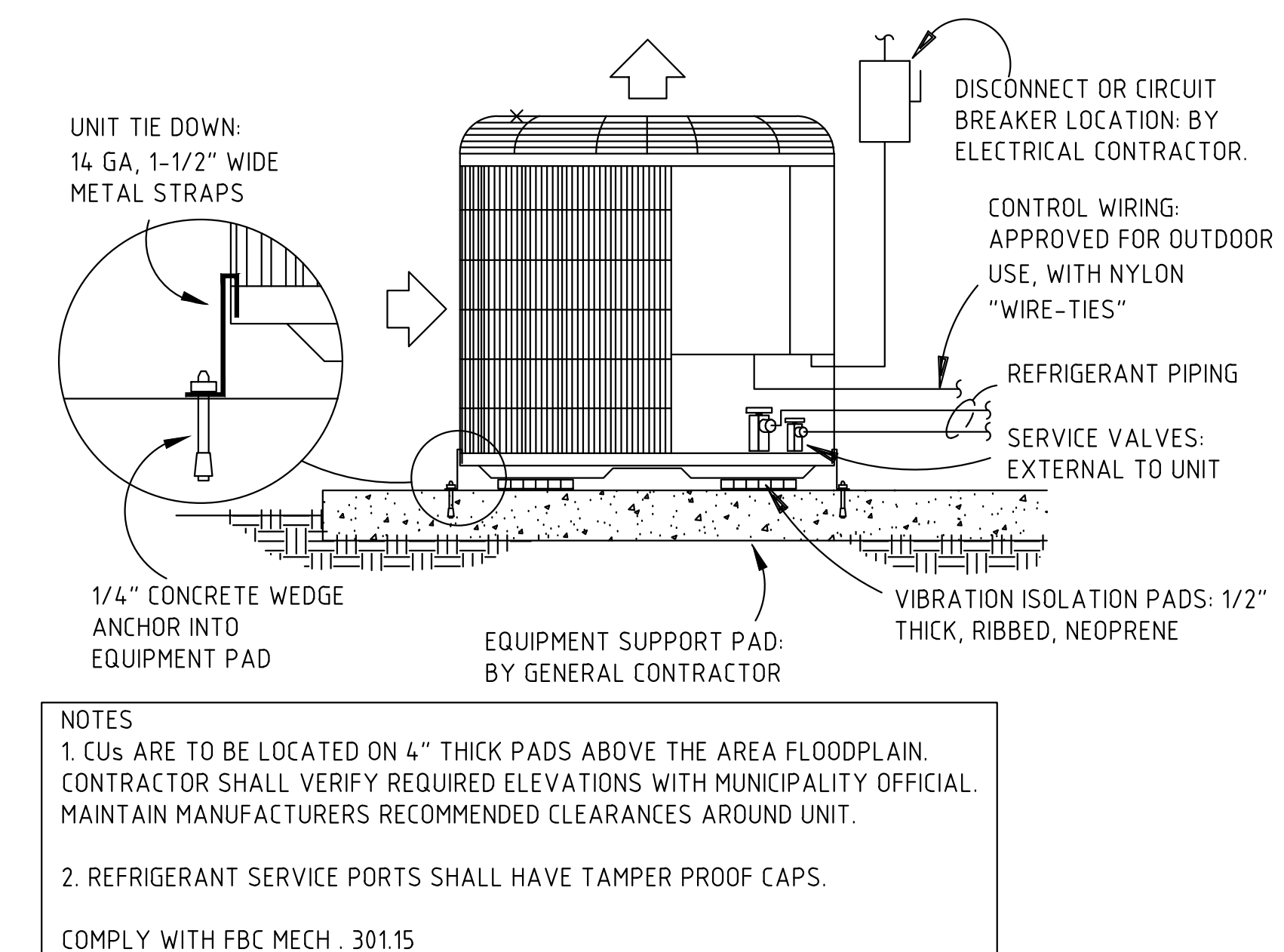
FLEX DUCT DETAIL



METHODS OF HANGING RIGID DUCT DETAIL



AIR HANDLER DETAIL



CONDENSER MOUNTING DETAIL

DRAWN BY: Oby

REVISIONS:

1	
2	
3	

MECHANICAL PLAN

M1.1

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