



HVAC LAYOUT PLAN
SCALE: 1/4" = 1'-0"
NORTH

GAS-FIRED FURNACE EQUIPMENT SCHEDULE

TAG	MFG	MODEL	AREA(S) SERVED	AIR FLOW (CFM)				SUPPLY FAN SECTION				COOLING SECTION			HEATING DESIGN (°F)			HEATING PERFORMANCE			ELECTRICAL DATA			UNIT LOCATION	EX MECH	INSTALLED WEIGHT (LBS)	REMARKS				
				SUPPLY	RETURN	QA	TSP	ESP	HP	BHP	RPM	FAN TYPE	DISCHARGE	MODULATION	UNIT TAG	LOCATION	EAT	LAT	TEMP RISE	MBH INPUT	MBH OUTPUT	EFF (%)	FUEL TYPE					CONNECTION (WC)	VOLTAGE-PH-HZ	MCA	MOCF
F-3	LENNOX	ML193UH09P48C	ADDITION	1600	1360	240	N/A	0.40	0.5	N/A	-	DIRECT DR	UPFLOW	-	-	CU-1	GROUND	70	127.9	57.9	88.0	83.0	93.0	N. GAS	1/2" (3.5-10")	120V-1-60	11.5	15.0	EX MECH 114	218	1, 2, 3

REMARKS:
1. OUTSIDE AIR SHALL BE INTRODUCED THROUGH UNIT RETURN AIR.
2. UNIT TO BE SUPPLIED WITH MATCHING CASED COIL.
3. CONDENSATE OPEN SITE DRAIN BY FC. MC TO RUN CONDENSATE PIPING FROM EVAPORATOR COIL TO DRAIN.

AIR COOLED CONDENSING UNIT EQUIPMENT SCHEDULE

TAG	MFG	MODEL	AREA(S) SERVED	REFRIGERANT/LINE SIZES		COMPRESSOR				COOLING DESIGN (°F)				COOLING PERFORMANCE			ELECTRICAL DATA			UNIT LOCATION	INSTALLED WEIGHT (LBS)	REMARKS			
				TYPE	GAS (lb)	LIQUID (in)	RLA	LRA	FLA	FAN DIA	EADB	EAWB	LADB	LAWB	ODB	MBH NOMINAL	MBH SENSIBLE	SEER	VOLTAGE-PH-HZ				MCA	MOCF	
CU-3	LENNOX	TS4048S4	ADDITION	R-410A	3/8"	7/8"	13.7	83.1	1.7	1/4	22"	80	67	59	57.4	95	48.0	-	13.5	208/230V-3-60	18.8	30	GROUND	194	1, 2

REMARKS:
1. PROVIDE WALL SLEEVES AND SUPPORTS AS NECESSARY TO ROUTE REFRIGERATION PIPING FROM COIL TO OUTDOOR CONDENSING UNIT. ALL SUCTION (GAS) LINES TO BE INSULATED WITH 1/2" THICK (MIN.) ARMAFLEX INSULATION.
2. PROVIDE ALL FITTINGS AND OFFSETS AS NEEDED FOR REFRIGERATION PIPING IN ORDER TO AVOID SPACE CONFLICTS AND ROUTING ISSUES. PIPING PLAN NOT ON DRAWINGS, VERIFY ALL PIPE ROUTING IN FIELD.

EXHAUST FAN & VENTILATION SCHEDULE

TAG	MFG	MODEL	AREA(S) SERVED	CFM	ESP (WC)	HP	BHP	RPM	SONES	DRIVE	ELECTRICAL DATA			UNIT CONTROLLER	CONTROL SEQUENCE	UNIT LOCATION	INSTALLED WEIGHT (LBS)	REMARKS
											VOLTAGE-PH-HZ	AMPS	MOCF					
EF-1	BROAN	L150	ISOLATION 109	150	0.125"	-	N/A	-	1.5	DIRECT	120V-1-60	-	-	WALL SWITCH	ON/OFF	CEILING	23.1	
EF-2	BROAN	670	EXAM 108	60	0.125"	-	N/A	-	3.5	DIRECT	120V-1-60	-	-	WALL SWITCH	ON/OFF	CEILING	4.2	
EF-3	BROAN	L150	CAT WARD 107	150	0.125"	-	N/A	-	1.5	DIRECT	120V-1-60	-	-	WALL SWITCH	ON/OFF	CEILING	23.1	

REMARKS:
1.

GRILLES, REGISTERS, DIFFUSERS SCHEDULE

TAG	MFG	MODEL	NECK SIZE (IN.)	FACE SIZE (IN.)	PATTERN/TYPE	MOUNTING	MAX CFM	THROW (FT)	MATERIAL	FINISH	COLOR	REMARKS
CD-1	MAILOR	6500L	SEE PLANS	24x24	4-WAY/BLOW-40	T-BAR	SEE PLANS	-	STEEL	FACTORY	WHITE	
CD-2	MAILOR	6500L	SEE PLANS	24x12	4-WAY/BLOW-40	T-BAR	SEE PLANS	-	STEEL	FACTORY	WHITE	
RG-1	MAILOR	6145H	SEE PLANS	24x24	BAR TYPE RETURN	T-BAR	SEE PLANS	-	STEEL	FACTORY	WHITE	
RG-2	MAILOR	6145H	SEE PLANS	24x12	BAR TYPE RETURN	T-BAR	SEE PLANS	-	STEEL	FACTORY	WHITE	

NOMENCLATURE:
CD-1 → GRD TYPE
8/235 → CFM

- HVAC GENERAL NOTES:
- AIR-COOLED CONDENSER CU-3 TO BE FIELD LOCATED ON EXTERIOR AS CLOSE AS POSSIBLE TO EQUIPMENT ROOM HOUSING E-3. CONCRETE EQUIPMENT PAD BY OTHERS.
 - ROOF-MOUNTED RELIEF HOOD RH-1 TO SERVE AS COLLECTIVE TERMINATION FOR ALL NEW EXHAUST FANS. ACME MODEL EV OR EQUAL WITH WEIGHTED BACKDRAFT DAMPER. MC TO USE 12" H (MIN) CURB SLOPED TO MATCH ROOF PITCH.
 - ROOF-MOUNTED INTAKE HOOD QAL TO SERVE AS E-3 OUTSIDE AIR INTAKE. ACME MODEL IV OR EQUAL WITH WEIGHTED BACKDRAFT DAMPER. MC TO USE 12" H (MIN) CURB SLOPED TO MATCH ROOF PITCH.
 - MC TO SEAL ALL DUCTWORK WITH LOW VOC DUCT SEALER. DUCTWORK TO BE SEALED ALONG BOTH VERTICAL AND HORIZONTAL SEAMS.
 - ALL SUPPLY AIR DUCT AND OUTSIDE AIR DUCT RUN BELOW BOTTOM CHORD OF TRUSS TO BE EXTERNALLY INSULATED WITH 1-1/2" THICK, 0.75 LB/SF FIBERGLASS WITH FOIL FACE (STANDARD DUCT WRAP).
 - ALL EXHAUST DUCT TO BE UNINSULATED.
 - ALL RETURN AIR DUCT TO BE UNINSULATED.
 - ALL OUTSIDE AIR DUCT RUN IN ATTIC TO BE EXTERNALLY INSULATED WITH 2" THICK, 0.75 LB/SF FIBERGLASS WITH FOIL FACE (R6 DUCT WRAP).
 - ALL DUCT IN EXPOSED CONDITIONED SPACE TO BE UNINSULATED.
 - THERMOSTAT SHOWN TO BE IN ROOM 105, BUT FINAL LOCATION SHALL BE OWNER-VERIFIED.

REVISIONS / ISSUE:

1	01/02/13	COORDINATION REVISIONS
2	01/03/13	GAS CLARIFICATIONS
3	01/10/13	CU-3 CLARIFICATIONS

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AN ADDITION/REMODEL FOR:
**ANIMAL CLINIC OF
HEBRON**
HEBRON, INDIANA

DRAWING STATUS:
 PRELIMINARY
 FOR ESTIMATING
 FOR CONSTRUCTION

HVAC
DRAWING NUMBER
M100
DRAWING DATE: 12/21/12
DRAWN BY: PB
REVIEWED BY: JB
ACCEPTED BY: -
SHEET 1 OF 1
JOB NO. ACH