CORRIDOR HEAT PUMP SPLIT SYSTEMS

MARK (CU/AHU)		1B1	123	31	32	33	34	
NOMINAL TONS OF CU		2.5	2.5	2.5	2	2	3	
TOTAL COOLING LOAD (MBH)		25	25	24	20	20	33	
SENSIBLE COOLING LOAD (MBH)		17	16	16	14	14	27	
AHU CONFIGURATION		VERTICAL BOTTOM RETURN	VERTICAL BOTTOM RETURN	VERTICAL BOTTOM RETURN	VERTICAL BOTTOM RETURN	VERTICAL BOTTOM RETURN	VERTICAL BOTTOM RETURN	
AHU DIMENSIONS D X W X H (IN)		21 X 21 X 49	21 X 21 X 49	21 X 21 X 49	21 X 18 X 45	21 X 18 X 45	21 X 21 X 49	
SUPPLY AIR/OUTSIDE AIR (CFM)		900/245	900/255	900/260	700/220	700/225	1100/205	
EXTERNAL STATIC PRESS. (IN. W.C.)		0.6	0.6	0.6	0.6	0.6	0.6	
ENTERING AIR DRY BULB (°F.)		80	80	80	80	80	81	
ENTERING AIR WET BULB (°F.)		66	66	66	66	66	66	
EVAPORATOR FAN	HP	1/2	1/2	1/2	1/2	1/2	3/4	
	VOLT/ø	208/1	208/1	208/1	208/1	208/1	208/1	
ELECTRIC HEAT	LOAD (MBH)	32	27	50	37	37	44	
	KW @ 240V	10	15	15	15	15	15	
	VOLT/ø/STAGES	208/1/1	208/1/1	208/1/1	208/1/1	208/1/1	208/1/1	
CONDENSING UNIT	VOLT/ø	208/1	208/1	208/1	208/1	208/1	208/1	
CORRIDORS SERVED		SECTION A BASEMENT & 1ST	SECTION A 2ND AND 3RD	1ST FL ALONG GARAGE	2ND FL ALONG GARAGE	3RD FL ALONG GARAGE	4TH FL ALONG GARAGE	
AHU MODEL# (GOODMAN)		AVPTC-31	AVPTC-31	AVPTC-31	AVPTC-24	AVPTC-24	AVPTC-37	
CU MODEL# (GOODMAN)		GSZ14-30	GSZ14-30	GSZ14-30	GSZ14-24	GSZ14-24	GSZ14-36	
CU DIMENSIONS D X W X H (INCHES)		29 X 29 X 37	29 X 29 X 37	29 X 29 X 37	29 X 29 X 35	29 X 29 X 35	29 X 29 X 37	
MINIMUM EFFIC AT AHRI		14 SEER/8.2HSPF	14 SEER/8.2HSPF	14 SEER/8.2HSPF	14 SEER/8.2HSPF	14 SEER/8.2HSPF	14 SEER/8.2HSPF	
REMARKS		1 THRU 10	1 THRU 9	1 THRU 10	1 THRU 9	1 THRU 9	1 THRU 10	

REMARKS:

1. EXTERNAL STATIC PRESSURE EXCLUDES LOSSES DUE TO AHU CASING, DIRT ON FILTER, AND WET COOLING COIL.
2. PROVIDE HEAT PUMP. THERMOSTATS IN FULL COMPLIANCE WITH SECTION 6.4.3.1 THRU 6.4.3.3 OF THE 2007 ASHRAE 90.1 STANDARD.
3. 100°F OUTSIDE AIR AMBIENT AT CONDENSING UNIT.
4. COOLING LOADS EXCLUDE EVAPORATOR FAN HEAT.
5. PROVIDE WITH ACCESSORIES AND SUCTION LINE UPSIZING AS REQUIRED FOR LONG REFRIGERANT LINE RUNS UP TO 150 FEET EQUIVALENT ONE WAY WITH A 45 FOOT LIFT. IF USING THE BASIS OF DESIGN GOODMAN, FOLLOW THE TP-107 LONG LINE GUIDELINES FOR MAX 0.99 CAPACITY MULTIPLIER.
6. PROVIDE AHU AS VARIABLE SPEED TYPE WITH THERMOSTAT WHICH OPERATES FAN AT LOW SPEED DURING NON-PEAK COOLING TO MINIMIZE CYCLING, OPTIMIZE FAN ENERGY SAVINGS, AND INCREASE MOISTURE REMOVAL.
7. PROVIDE SYSTEM WITH R-410A TYPE REFRIGERANT.
8. PROVIDE AHU'S WITH THERMAL EXPANSION VALVES FOR SIGNIFICANTLY COLDER COIL CONDITIONS IN SHOULDER AND WINTER MONTHS AS OPPOSED TO THERMAL EXPANSION PISTONS. THE CONCERN IS FOR DECREASED MOISTURE REMOVAL WITH PISTONS. PISTONS ARE NOT ALLOWED.
9. PROVIDE AHU WITH SINGLE POINT ELECTRICAL CONNECTION, INCLUDING HEATER AND FACTORY DISCONNECT.
10. SUPPLEMENTAL HEAT IS PROVIDED BY WALL HEATERS

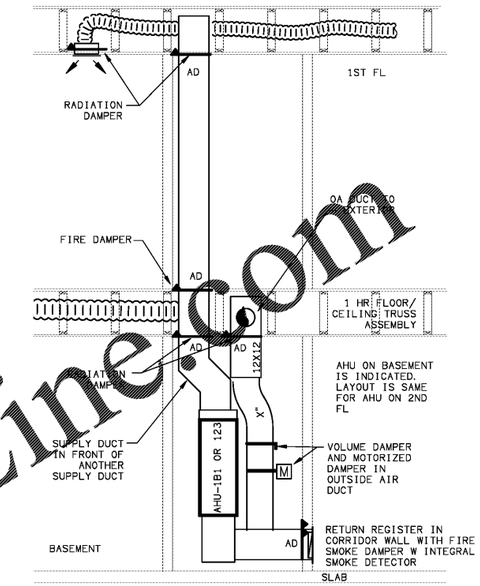
LOADS ARE BASED ON R-20 EXTERIOR WALL INSULATION, R-38 ROOF INSULATION, 24" VERTICAL R-10 SLAB INSULATION AND R-30 INSULATION ABOVE UNCONDITIONED SPACES

LOADS ARE BASED ON OPERABLE WINDOWS WITH A U-FACTOR OF NO MORE THAN 0.35 AND SHGC: 0.26

COMMON AREA FANS

MARK	MANUFACTURER TYPE & MODEL	CFM	E.S.P.	DRIVE	ELECTRICAL HP	ELECTRICAL VOLT/PHASE	MOUNTING	SONES	SERVES	DIMENSIONS LxWxH (INCHES)	REMARKS
VF-1T	LOREN COOK GEMINI GC-126	50	.35	DIRECT	1/20	120/1	CEILING	8	IT CLOSET	14 X 16 X 9	1, 2, 3, 8, 9, 10
EF-J	LOREN COOK GEMINI GC-126	50	.3	DIRECT	1/20	120/1	CEILING	8	JANITOR	14 X 16 X 9	1, 2, 3, 6, 8
EF-R4	LOREN COOK GEMINI GC-622	280	.35	DIRECT	1/20	120/1	CEILING	5	FOUR HOLER RESTROOM	12 X 17 X 12	1, 2, 3, 6, 8
EF-R1	LOREN COOK GEMINI GC-146	170	.3	DIRECT	1/20	120/1	CEILING	4	ONE HOLER RESTROOM	14 X 16 X 9	1, 2, 3, 6, 8
EF-P	LOREN COOK ACE-D 165C10D	1600	.3	DIRECT	1/3	120/1	ROOF	12	POOL EQUIPMENT	33ø X 30	1, 2, 3, 4, 5, 7, 11, 12

1. PROVIDE WITH UNIT MOUNTED DISCONNECT.
2. PROVIDE WITH BACKDRAFT DAMPER.
3. EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS WILL BE REVIEWED
4. PROVIDE WITH CURB
5. CONTINUOUS OPERATION
6. CONTROL PER ELECTRICAL DRAWINGS
7. PROVIDE WITH BIRDSCREEN
8. PROVIDE WITH CEILING GRILLE
9. PROVIDE THERMOSTAT TO ENGAGE AT 80°F AND ABOVE. IT
10. PROVIDE WITH FACTORY RADIATION DAMPER
11. PROVIDE WITH UNIT MOUNTED SPEED CONTROLLER
12. PROVIDE WITH 1000 HOUR SALT SPRAY CORRISION COATING ON INTERNAL AND EXTERNAL STEEL PARTS.



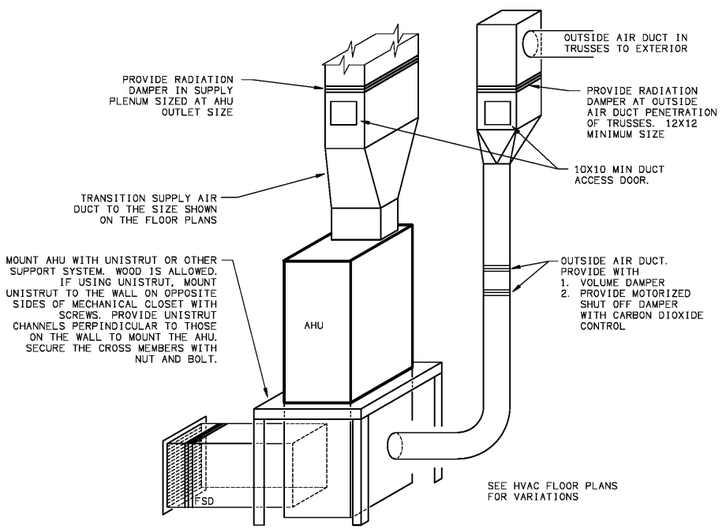
ELEVATION VIEW

CORRIDOR AHUS THAT SERVE TWO FLOORS

SCALE: NTS

NOTES:

1. PROVIDE MINIMUM 10X10 ACCESS DOORS FOR RADIATION DAMPERS AND DUCT MOUNTED FIRE/SMOKE DAMPERS, AND 18X18 WHERE SPACE ALLOWS.
2. WIRE THE INTEGRAL FSD SMOKE DETECTOR TO SHUT DOWN THE AHU FAN AND ALL THE FIRE/SMOKE DAMPERS ASSOCIATED WITH THE AHU THRU THE FIRE ALARM CONTROL SYSTEM IN THE EVENT SMOKE IS SENSED.
3. WHERE SUPPLY REGISTERS ARE LOCATED RIGHT UNDER THE DUCTS, ORIENT THE RADIATION DAMPER BLADES PARALLEL TO THE AIR STREAM SO THEY DO NOT BLOCK AIR FLOW APPRECIABLY.
4. RADIATION DAMPERS SHALL BE LISTED IN THE UL FIRE TEST RATINGS OF THE TRUSS SYSTEMS INVOLVED.
5. AHU SHALL BE SHUT DOWN BY FIRE ALARM UPON FIRE EVENT OR SMOKE SIGNAL FROM A SMOKE DETECTORS IN ONE OF THE FIRE/SMOKE DAMPERS.
6. AD = ACCESS DOOR



CORRIDOR AHU'S THAT SERVE 1 FLOOR

SCALE: N.T.S.

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Common North, Prospect, KY

KENTUCKY

Architect Name
Charlan Brock & Associates, AAC000776

MiGre Engineers LLC
780 FLORIDA CENTRAL PARKWAY
SUITE 224
LONGWOOD, FL 32750
PH: 407.336.7999

PROJECT #: 18025

Lyric at Norton Commons
Prospect, Kentucky

Bristol Development Group
381 Mallory Station Rd, Suite 204
Franklin, TN 37067

charlan • brock associates
architects • planners
1770 fennell street
maitland florida 32751-7208
407.660.8900 ⁜ 407.875.5948
www.cbaarchitects.com

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