

ROOFTOP UNIT SCHEDULE - (DX COOLING - REFRIGERANT R-410a - WITH GAS HEAT + HOT-GAS REHEAT)

SYMBOL	CFM	NOMINAL TONNAGE	O.A. CFM	E.S.P.	COOLING CAPACITY			EFFICIENCY			HEATING CAPACITY			EFFICIENCY			COMPRESSOR (EA)			POWER SUPPLY			OPERATING		MANUFACTURER	
					TC (BTUH)	SHC (BTUH)	SEER	EER	IPLV	INPUT (BTUH)	OUTPUT (BTUH)	AFUE	NO.	RLA	LRA	QTY.	FLA	IFM	COMB. FAN	POWER EXHAUST	MCA	MCCP	VOLTAGE	WEIGHT	TRANS. MODEL	
RTU-1	4000	10	200	0.5"	119,000	92,700	N/A	11.2	12.5	200,000 / 140,000	162,000 / 113,000	81%	2	SEE NOTE "A"	1	4	7.3	1	---	---	50.1	60	208V-3#	1,565 LBS	YSC120F3	
RTU-2	5000	12½	1400	1.0"	149,000	105,400	N/A	11.0	12.2	250,000 / 150,000	203,000 / 122,000	81%	2	22.4	149	2	2.7	9.85	0.5	---	---	67.0	80	208V-3#	2,034 LBS	YHD150G3

COMPRESSOR NOTES:
 A. COMPRESSOR #1: 19.6 RLA, 136 LRA; COMPRESSOR #2: 13.1 RLA, 83 LRA

- NOTES:
- COOLING CAPACITIES BASED ON 95° AMBIENT, 80/67 ENTERING AIR.
 - PROVIDE ALL UNITS WITH: ROOF CURB, ELECTRONIC 7-DAY PROGRAMMABLE THERMOSTAT (HONEYWELL VISION PRO TH8000), REMOTE TEMPERATURE SENSOR-COMPATIBLE WITH HONEYWELL VISION PRO TH8000 (FOR RTU-2 ONLY), 2" THROWAWAY FILTERS (MERV 8 MINIMUM), STAINLESS STEEL COOLING COIL DRAIN PANS, PRIMARY COOLING COIL DRAIN PAN FLOAT SWITCH, FULLY MODULATING ECONOMIZER WITH DIFFERENTIAL ENTHALPY CONTROL, BAROMETRIC RELIEF (FOR RTU-1 ONLY), POWER EXHAUST (FOR RTU-2 ONLY), HOT-GAS REHEAT, INTERMITTENT PILOT IGNITION, CONDENSER COIL HAIL GUARDS AND HINGED ACCESS DOORS WITH "TOOL-LESS" ENTRY.
 - ALL UNITS SHALL BE AGA CERTIFIED, U.L. LABELED, AND ASHRAE 90.1 COMPLIANT.
 - PROVIDE EACH UNIT WITH AN IONIZATION TYPE SMOKE DETECTOR, INSTALLED IN THE SUPPLY DUCT WIRED TO SHUT DOWN THE UNIT UPON ACTIVATION. ACTIVATION OF DUCT DETECTOR SHALL ACTIVATE AN AUDIO/VISUAL ALARM IN AN APPROVED LOCATION. DUCT DETECTOR TROUBLE CONDITIONS SHALL ACTIVATE THE VISUAL PORTION OF THE ANNUNCIATOR AND SHALL BE IDENTIFIED AS "AIR DETECTOR TROUBLE". SMOKE DETECTOR AND ALARM SHALL BE FURNISHED, INSTALLED, AND WIRED BY THE MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE POWER WIRING AND ALL ASSOCIATED ACCESSORIES (STEP DOWN TRANSFORMER, ETC.) FOR SMOKE DETECTOR, EITHER FED FROM POWER FEED TO UNIT OR ANOTHER APPROVED POWER SOURCE IN THE AREA.
5. UNITS SHALL INCLUDE A FROST STAT FOR COIL FROST PROTECTION AT LESS THAN DESIGN AMBIENT CONDITIONS.
6. SEQUENCE OF OPERATION: UNIT SHALL BE CONTROLLED BY ITS ELECTRONIC 7-DAY PROGRAMMABLE THERMOSTAT (AND REMOTE TEMPERATURE SENSOR WHERE APPLICABLE). UNIT SUPPLY FAN SHALL RUN CONTINUOUSLY IN THE OCCUPIED MODE. CYCLE WITH HEATING AND COOLING WHILE UNOCCUPIED. UPON A RISE IN SPACE TEMPERATURE, UNIT COMPRESSORS AND CONDENSER FANS SHALL ACTIVATE IN STAGES TO SATISFY SPACE. UPON A DROP IN SPACE TEMPERATURE, GAS HEAT SHALL BE ACTIVATED IN STAGES TO SATISFY SPACE TEMPERATURE. INTERNAL UNIT CONTROLS SHALL OPERATE ENTHALPY ECONOMIZER WHEN OUTSIDE AIR ENTHALPY IS LOWER THAN RETURN AIR ENTHALPY. INTERNAL UNIT CONTROLS SHALL ALSO OPERATE HOT GAS REHEAT TO PROVIDE DEHUMIDIFICATION. THERMOSTATS SHALL PROVIDE A DEADBAND OF 5°, WITHIN WHICH THE SUPPLY OF HEATING OR COOLING ENERGY TO THE ZONE CAN BE REDUCED TO THE MINIMUM. OCCUPANCY SCHEDULES SHALL BE SET TO OCCUPY MONDAY THROUGH SUNDAY, 10 AM TO 3 AM, UNOCCUPIED MONDAY THRU SUNDAY, 3 AM TO 10 AM. THERMOSTATS SHALL BE SET FOR OCCUPIED HEATING 75°, OCCUPIED HEATING 70°, UNOCCUPIED COOLING 85°, UNOCCUPIED HEATING 55°. ALL TIME AND TEMPERATURE SETPOINTS SHALL BE VERIFIED BY THE OWNER PRIOR TO PROGRAMMING. THERMOSTATS SHALL BE PROGRAMMED BY MECHANICAL CONTRACTOR IN THE PRESENCE OF OWNER'S REPRESENTATIVE PRIOR TO PROJECT COMPLETION.
7. PRIMARY COOLING COIL DRAIN PAN SHALL BE PROVIDED WITH A FLOAT SWITCH BY UNIT MANUFACTURER. ACTIVATION OF THE FLOAT SWITCH SHALL SHUT DOWN UNIT UPON ACTIVATION.

FAN SCHEDULE (KEF-1 AND KSF-1) FURNISHED BY COOKOUT

SYMBOL	AREA SERVED (LOCATED)	TYPE	CFM	APPROX. S.P.	DRIVE	FAN RPM	ELECTRICAL DATA			MANUFACTURER	ACCESSORIES	CONTROLS
							WATTS	H.P.	VOLTAGE			
FF-1	WOMEN 112 (SAME)	EXHAUST	150	0.25"	DIRECT	1050	129	---	120V-1#	SP-B150	A,B,G,0	2
FF-2	MEN 110 (SAME)	EXHAUST	150	0.25"	DIRECT	1050	129	---	120V-1#	SP-B150	A,B,G,0	2
FF-3	JANITOR 113 (SAME)	EXHAUST	150	0.25"	DIRECT	1050	129	---	120V-1#	SP-B150	A,B,G,0	6
FF-4	UNISEX 105 (SAME)	EXHAUST	150	0.25"	DIRECT	1050	129	---	120V-1#	SP-B150	A,B,G,0	2
KEF-1	KITCHEN 109 (ROOF)	KITCHEN EXH.	3900	1.20"	BELT	1353	---	---	208V-3#	CASRE20BD	A,D,P,Q,S,X,Y,Z	7
KSF-1	KITCHEN 109 (ROOF)	KITCHEN SUPPLY	3120	0.45"	BELT	1401	---	---	208V-3#	A1-D250-G10	A,C,D,E,M,S	7

- ACCESSORIES:
- A: DISCONNECT SWITCH
 - B: GRAVITY BACKDRAFT DAMPER
 - C: MOTORIZED BACKDRAFT DAMPER
 - D: PREFAB. ROOF CURB
 - E: BIRDSCREEN
 - F: ACOUSTICAL LINING
 - G: HANGING BRACKETS WITH VIBRATION ISOLATION
 - H: W.L. WALL LOUVER DISCHARGE
 - J: RCC OR GRS ROOF CAP (FLAT ROOF) OR RJ ROOF CAP (PITCHED ROOF)
 - K: TWO SPEED / TWO WINDING FAN (1725/1140 RPM)
 - L: INLET GUARD
- CONTROLS:
- WALL MOUNTED THERMOSTAT (REVERSE ACTING, SET FOR 80°)
 - INTERLOCK WITH ROOM LIGHT SWITCH (FAN SHALL OPERATE WHEN LIGHT IS ON IN ANY ROOM SERVED BY FAN)
 - WALL MOUNTED ON/OFF SWITCH WITH IDENTIFICATION LABEL
 - WALL MOUNTED MUSHROOM PUSH BUTTON SWITCH/STARTER WITH IDENTIFICATION LABEL
 - CONTROLLED BY BUILDING AUTOMATION SYSTEM
 - CONTINUOUS OPERATION
 - INTERLOCK WITH KITCHEN HOOD CONTROLS

- NOTES:
- ALL FANS SHALL BE U.L. LISTED AND LABELED AND SHALL BE AMCA CERTIFIED FOR SOUND AND AIR FLOW. ALL FANS INSTALLED INSIDE, ABOVE, OR ADJACENT TO OCCUPIED SPACES SHALL HAVE A MAXIMUM 9.0 INLET SONE LEVEL.
 - ALL FANS SHALL BE SUPPLIED BY ONE MANUFACTURER UNLESS NOTED OTHERWISE.
 - MECHANICAL CONTRACTOR SHALL PROVIDE MAGNETIC STARTER WITH AUXILIARY CONTACTS AS REQUIRED.
 - PROVIDE ALL DIRECT DRIVE FANS WITH SPEED CONTROLLERS.
 - BACKDRAFT DAMPER ON ROOF SUPPLY FANS SHALL BE MOTORIZED.
 - ALL KITCHEN EXHAUST FANS SHALL BE PROVIDED WITH NON-STICK COATED WHEEL (TEFLON).
 - KITCHEN SUPPLY FAN (KSF) INDICATED S.P. IS EXTERNAL STATIC ON SUPPLY SIDE ONLY. ALL OTHER FAN'S INDICATED S.P. IS APPROX. TOTAL STATIC.
 - KITCHEN SUPPLY FAN (KSF) MAKE-UP AIR UNIT PROVIDED WITH NATURAL GAS FIRED HEATING SECTION: 185,925 INPUT / 171,051 OUTPUT WITH 55° RISE.
 - RESTROOM/JANITOR EXHAUST FANS SHALL HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN THE FAN IS NOT OPERATING.
 - REFER TO SHEETS M4-1 THRU M4-3 FOR ADDITIONAL REQUIREMENTS.

GRILLE AND DIFFUSER SCHEDULE

SYMBOL	SERVICE	CFM RANGE	FACE SIZE	GRID SIZE	TYPE	QBD	HART&COOLEY
A	SUPPLY	0 - 100	12x12	6"	4-WAY LOUVERED (ENGINEERED POLYMER)	NO	RZS04
B	SUPPLY	105 - 245	24x24	6"	4-WAY LOUVERED (ENGINEERED POLYMER)	NO	RZSRT
C	SUPPLY	250 - 375	24x24	10"	4-WAY LOUVERED (ENGINEERED POLYMER)	NO	RZSRT
D	SUPPLY	380 - 500	24x24	12"	4-WAY LOUVERED (ENGINEERED POLYMER)	NO	RZSRT
E	SUPPLY	500 - 700	24x24	12"	3-WAY LOUVERED (ENGINEERED POLYMER)	NO	RZMCDST
F	SUPPLY	SEE PLANS FOR SIZE AND CFM			DBL. DEFL. SPIRAL (ALUMINUM)	NO	SVH
G	SUPPLY	SEE PLANS FOR SIZE AND CFM			DBL. DEFL. (ALUMINUM)	NO	HV
H	RETURN	0 - 245	12x12	22x22	EGGCRATE (ENGINEERED POLYMER)	NO	RZREF5T

- NOTES:
- ALL CEILING DEVICES SHALL BE FURNISHED WITH AN ENAMEL OFF-WHITE FINISH (AS APPROVED BY THE ARCH/OWNER). ALL COLOR SWATCHES SHALL BE INCLUDED WITH SHOP DRAWING SUBMITTALS (M.C. SHALL INITIATE COORDINATION PRIOR TO SUBMITTALS).
 - ALL DEVICES SHALL BE FURNISHED WITH FRAMES SUITABLE FOR TYPE OF INSTALLATION REQUIRED.
 - REGISTERS ON ROUND DUCT SHALL BE MOUNTED FLUSH WITHOUT THE USE OF TRANSITIONS. THE FACE FRAME SHALL BE CURVE TO MATCH THE RADIUS OF THE DUCT ALLOWING THE GRILLE TO FIT SNUGLY AROUND THE DUCT. PROVIDE REGISTERS WITH OPTIONAL AIR SCOOP.

AIR CURTAIN (FLY FAN) SCHEDULE

SYMBOL	LOCATION	CFM	BTUH	KW	MOTOR		MANUFACTURER	ACCESSORIES
					R.P.M.	H.P.		
FF-1	KITCHEN 104	1050	---	---	1550	1/8	115V-1#	LPV2 42 A,B,C,D,E

- NOTES:
- PROVIDE 5 YEAR WARRANTY ON ALL PARTS.
- ACCESSORIES:
- A: ETL LISTED
 - B: MOUNTED SPEED CONTROLLER
 - C: DOOR LIMIT SWITCHES
 - D: WASHABLE ALUMINUM FILTERS
 - E: ADJUSTABLE WALL MOUNTING BRACKETS

KITCHEN HOOD SCHEDULE (HOOD AND FANS KEF-1 & KSF-1 FURNISHED BY COOKOUT AND INSTALLED BY MECHANICAL CONTRACTOR)

SYMBOL	HOOD TYPE	DUTY	EXHAUST AIR PLENUM			MAKE-UP AIR PLENUM			A/C AIR PLENUM			DIMENSIONS			MANUFACTURER				
			EXHAUST CFM	SIZE	RISER #1 S.P.	MAKE-UP CFM	RISER (EACH) QTY. SIZE CFM S.P.	A/C CFM	RISER (EACH) QTY. SIZE CFM S.P.	LENGTH	WIDTH	HEIGHT	CAPTIVE/FAIR						
H-1	I	HEAVY	3900	10x34	3900 0.70	3120	---	---	1040	---	---	660	---	---	220 0.074	15'-0"	4'-6"	2'-0"	5424 ND-2-ACPS-F

- TYPE-1 KITCHEN HOOD NOTES:
- ALL 430 STAINLESS STEEL CONSTRUCTION (WHERE EXPOSED). ALL COMPONENTS SHALL BE U.L. 710 LISTED AND LABELED. PROVIDE A REMOTE CONTROL PANEL MOUNTED ON FACE OF HOOD WITH MASTER DISCONNECT SWITCH, STARTERS FOR BOTH FANS, CONTROL VOLTAGE TRANSFORMER, FIRE CONTROL SYSTEM RELAY AND THERMISTRIP. MOUNT HOOD 6"-8" ABOVE FINISH FLOOR. PROVIDE STAINLESS STEEL ENCLOSURE AROUND TOP OF HOOD AS REQUIRED TO CLOSE TO CEILING. HOOD SHALL BE PROVIDED WITH AUTOMATICALLY OPERATED FIXED PIPE FIRE SUPPRESSION SYSTEM IN ACCORDANCE WITH NFPA 17A 2013 EDITION AND NFPA 96 2011 EDITION. CONTROL SWITCHES AND PILOT LIGHTS FOR EXHAUST AND MAKE-UP FANS, VAPORPROOF FLUORESCENT LIGHT FIXTURES, STAINLESS STEEL GREASE FILTERS, FIRE DAMPER (212" LINK) IN SUPPLY DUCT COLLAR. FIRE SUPPRESSION SYSTEM SHALL BE ANSUL PIRANHA SYSTEM. REMOTE PULL STATION FOR ACTIVATION OF FIRE SUPPRESSION SYSTEM SHALL BE PROVIDED AND INSTALLED WHERE INDICATED ON PLANS. FIRE SUPPRESSION SYSTEM SHALL BE U.L. 300 LISTED. NOZZLE TYPE AND LAYOUT SHALL BE APPLIANCE SPECIFIC (REFER TO KITCHEN EQUIPMENT PLANS AND SPECIFICATIONS). HOOD H-1 CONTROL SYSTEM INCLUDES CONTROL PANEL FACE MOUNTED ON THE HOOD, TEMPERATURE INTERLOCK, AND FAN MOTOR STARTERS.

- KITCHEN HOOD (H-1) GENERAL NOTES:
- KITCHEN HOOD SHALL BE U.L. 710 LISTED AND LABELED.
 - KITCHEN HOOD SHALL BE CONSTRUCTED AND INSTALLED PER NFPA 96 2011 EDITION.
 - KITCHEN HOOD SHALL BE SUPPLIED BY ONE MANUFACTURER UNLESS NOTED OTHERWISE.
 - PROVIDE STAINLESS STEEL ENCLOSURE AROUND TOP OF HOOD AS REQUIRED TO CLOSE OPENING IN CEILING.
 - MOUNT KITCHEN HOOD 6"-8" ABOVE FINISH FLOOR (UNLESS NOTED OTHERWISE).
 - MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR HOOD CERTIFICATION IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS. CERTIFICATION SHALL BE WITNESSED AND PERFORMED BY A PERSON CERTIFIED THROUGH ABC, TABB, NEBB OR NSC AND SHALL PROVIDE DOCUMENTATION OF PERFORMANCE TO THE CODE OFFICIAL. ALL EQUIPMENT SHALL BE ENERGIZED AND IN OPERATION DURING THE TEST. TEST SHALL ALSO INCLUDE VERIFYING ACTUAL FLOW RATES VERSUS DESIGN FLOW RATES.
- POWER SUPPLY TO THE KITCHEN HOOD IS A SINGLE POINT ELECTRICAL CONNECTION FOR THE SYSTEM (FANS AND KITCHEN HOOD). THE MECHANICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL WIRING (INCLUDING DISCONNECTS, FUSES, AND/OR CIRCUIT BREAKERS) REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO INSTALLING THE KITCHEN HOOD AND FAN(S). THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER TO THE KITCHEN HOOD AND FROM THE KITCHEN HOOD TO THE FAN(S) INCLUDING CODE REQUIRED DISCONNECT SWITCHES. THE KITCHEN HOOD MANUFACTURER SHALL PROVIDE ALL CONTROL WIRING AND CONTROL INTERLOCKS BETWEEN THE KITCHEN HOOD AND THE FAN(S) INTEGRAL TO THE KITCHEN HOOD.
8. REFER TO DRAWINGS M4-1 THRU M4-3 FOR ADDITIONAL REQUIREMENTS.

- TYPE-1 KITCHEN HOOD CLEARANCE TO COMBUSTIBLES NOTES:
- CLEARANCES FROM KITCHEN HOOD TO NON-COMBUSTIBLE ASSEMBLIES OR MATERIALS SHALL BE 0 INCHES. NON-COMBUSTIBLE ASSEMBLIES AND MATERIALS INCLUDE BRICK, CLAY TILE, CONCRETE MASONRY, PLASTER, CERAMIC, OR QUARRY TILE ON BRICK, CLAY TILE, OR CONCRETE MASONRY PRODUCTS.
 - CLEARANCES FROM KITCHEN HOOD TO LIMITED-COMBUSTIBLE ASSEMBLIES OR MATERIALS SHALL BE 3 INCHES. LIMITED-COMBUSTIBLE ASSEMBLIES AND MATERIALS INCLUDE GYPSUM BOARD ON SHEET METAL STUDS OR SOLID GYPSUM BOARD.
 - CLEARANCES FROM KITCHEN HOOD TO COMBUSTIBLE ASSEMBLIES OR MATERIALS SHALL BE 18 INCHES. COMBUSTIBLE ASSEMBLIES AND MATERIALS INCLUDE ANY WOOD FRAMING OR WOOD PANELING.
 - THE MECHANICAL CONTRACTOR SHALL COORDINATE CLOSELY WITH THE GENERAL CONTRACTOR AND THE KITCHEN EQUIPMENT SUPPLIER TO MAINTAIN THE CORRECT CLEARANCES FROM THE KITCHEN HOOD IN ORDER TO COMPLY WITH THE LATEST EDITION OF NFPA 96 AND THE LATEST EDITION OF THE MECHANICAL CODE IN EFFECT IN THIS JURISDICTION. THE KITCHEN HOOD MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE SECURED ON THE JOB SITE AND MADE AVAILABLE FOR THE INSPECTOR'S REVIEW AT ALL TIMES.

- TYPE-1 KITCHEN HOOD FIRE SUPPRESSION NOTES:
- A MANUAL ACTUATION DEVICE SHALL BE LOCATED AT OR NEAR A MEANS OF EGRESS FROM THE COOKING AREA, A MINIMUM OF 10 FEET AND A MAXIMUM OF 20 FEET FROM THE KITCHEN EXHAUST SYSTEM. THE MANUAL ACTUATION DEVICE SHALL BE LOCATED A MINIMUM OF 3.5 FEET AND A MAXIMUM OF 4 FEET ABOVE THE FLOOR AND CLEARLY INDICATE THE HAZARD PROTECTED. THE MANUAL ACTUATION SHALL REQUIRE A MAXIMUM FORCE OF 40 POUNDS AND A MAXIMUM MOVEMENT OF 14 INCHES TO ACTIVATE. THE FIRE SUPPRESSION SYSTEM REMOTE PULL STATION FOR ACTIVATION OF FIRE SUPPRESSION SYSTEM SHALL BE PROVIDED AND INSTALLED WHERE INDICATED ON THE PLANS. MECHANICAL CONTRACTOR SHALL INSTALL 1/2" CONDUIT IN WALL FOR MANUAL PULL STATION. PULL STATION SHALL BE RECESSED.
 - THE ACTUATION OF THE FIRE SUPPRESSION SYSTEM SHALL AUTOMATICALLY:
 - SHUT DOWN THE FUEL (SOLENOID GAS VALVE PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR) AND/OR ELECTRICAL POWER (SHUNT-TRIP BREAKER PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR) SUPPLY TO THE COOKING EQUIPMENT. THE FUEL AND/OR ELECTRICAL SUPPLY RESET SHALL BE MANUAL. REFER TO DRAWING M4-2 FOR ADDITIONAL ANSUL PIRANHA REQUIREMENTS.
 - ALLOW KITCHEN HOOD EXHAUST FAN TO CONTINUE TO OPERATE.
 - SHUT DOWN ALL ASSOCIATE AIR HANDLING UNITS.
 - SHUT DOWN KITCHEN HOOD SUPPLY FAN.
 - THE HOOD FIRE SUPPRESSION SYSTEM SHALL BE CONNECTED TO AND FED FROM THE FIRE SUPPRESSION SYSTEM CABINET AT THE TYPE-1 KITCHEN HOOD.
 - ALL EXPOSED PIPING WITH FIRE SUPPRESSION SYSTEM SHALL BE COVERED WITH A CHROME SLEEVE.
 - G.C. SHALL PROVIDE CLASS K FIRE EXTINGUISHER WITH KITCHEN HOOD.

- PRIOR TO COMMENCEMENT OF WORK:
- M.C. SHALL OBTAIN THE REQUIRED PERMIT FROM THE COUNTY FIRE MARSHAL'S OFFICE PRIOR TO INSTALLATION.

Order Plans



COOK OUT
 2546 Chimney Rock Road
 Hendersonville, NC

Mk	Date	Description
		Revisions

MECHANICAL SCHEDULES

Date: 08-04-17
 Drawn By: SJR
 Check By: MEH
 Job No.: 17-0081-000
 Sheet:

M1-2
 2 OF 8