

AIR BALANCE SUMMARY				
UNIT NO.	SUPPLY	RETURN	OUTSIDE AIR	EXHAUST AIR
RTU-1	5000	3700	1500	-
RTU-2	4000	3100	1000	-
EF-1	-	-	-	300
EF-2	-	-	-	300
KSF-1	-	-	4260	-
KEF-1	-	-	-	2136
KEF-2	-	-	-	2136
KEF-3	-	-	-	1200
TOTALS	11200.0	9090.0	6750.0	6076.0
PRESSURIZATION = 6780(OA) - 6076(EA) = 704 CFM POSITIVE				

**KITCHEN HOOD EXHAUST AND MAKE UP AIR SYSTEMS:**  
 KITCHEN HOOD, EXHAUST FAN AND MAKE UP AIR FAN SHALL BE FURNISHED BY KITCHEN EQUIPMENT SUPPLIER AND INSTALLED BY THE MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR TO PROVIDE ALL REQUIRED DUCTWORK FOR THE SYSTEM. GREASE EXHAUST DUCT SHALL BE 16 GAUGE CARBON STEEL CONSTRUCTION.

**NOTE:**  
 KITCHEN HOODS SHALL BE COMPLETE WITH FIRE SUPPRESSION SYSTEM PER NFPA-96. COMPLETE HOOD ASSEMBLY SHALL BE UL LABELED AND INSTALLED PER THE REQUIREMENTS OF THE STATE BUILDING CODE AND NFPA-96.

### HVAC GENERAL NOTES

- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT IN STRICT ACCORDANCE WITH APPLICABLE CODES AND STANDARDS, AND PER MANUFACTURER'S DIRECTIONS.
- THE CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS, LICENSE, INSPECTIONS, APPROVALS, AND FEES.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES BEFORE INSTALLATION OF ANY MATERIALS OR EQUIPMENT.
- THESE DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL LOCATION AND ARRANGEMENT OF ALL MATERIALS AND EQUIPMENT. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS BUILDING CONSTRUCTION AND ALL OTHER WORK WILL PERMIT.
- DO NOT SCALE DRAWINGS FOR MEASUREMENTS.
- ALL DUCT DIMENSIONS SHOWN ARE INTERIOR DUCT DIMENSIONS.
- ALL PENETRATIONS THROUGH EXTERIOR WALLS & ROOF SHALL BE FLASHED & COUNTERFLASHED IN A WATERPROOF MANNER. (COLOR TO MATCH EXTERIOR).
- SEAL ALL PENETRATIONS OF RATED WALLS WITH FIRE DAMPER, SEALANT MATERIAL APPROVED BY LOCAL CODE.
- ALL SUSPENDED MATERIALS AND EQUIPMENT SHALL BE INDIVIDUALLY SUPPORTED FROM THE BUILDING STRUCTURE. DO NOT SUSPEND ITEMS FROM THE CEILING OR ITS SUPPORT SYSTEM.
- INSTALL ALL CONTROL DEVICES, INCLUDING THERMOSTATS AND SWITCHES, 4'-0" ABOVE FINISHED FLOOR. PROVIDE THE REQUIRED DEVICE(S) FOR ALL SYSTEMS WHETHER LOCATED ON THE PLANS OR NOT.
- LOCATE CEILING DIFFUSERS IN ACCORDANCE WITH ARCHITECTURAL REFLECTED CEILING PLANS (IF PROVIDED).
- PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES AROUND MECHANICAL UNITS FOR MAINTENANCE AND FILTER REMOVAL.
- ALL PIPING AND DUCTWORK LOCATIONS SHALL BE COORDINATED W/ WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS, TO AVOID INTERFERENCE.
- ALL SUPPLY AND RETURN DUCT SHALL BE INSULATED. CONCEALED SHEET METAL DUCT MAY BE EXTERNALLY INSULATED WITH MINERAL FIBER BOARD OR BLANKET OR MAY BE INTERNALLY INSULATED WITH DUCT LINER (R-VALUE = 5). THE FIRST 1' FROM THE AIR HANDLER SHALL BE INTERNALLY LINED. INTERNALLY LINED INSULATION SHALL MEET BACTERIOLOGICAL STANDARD ASTM C 665.
- CERTIFIED TEST AND BALANCE CONTRACTOR SHALL BALANCE SYSTEM, INCLUDING ALL SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST INLETS AND OUTLETS, TO AIR QUANTITIES INDICATED ON PLANS AND PROVIDE OWNER'S REPRESENTATIVE WITH COMPLETE BALANCE REPORT. IF BALANCING DAMPERS ARE NOT PROVIDED IN RETURN DUCTWORK, CONTRACTOR SHALL BALANCE SUPPLY SIDE TO AIR QUANTITIES INDICATED ON PLANS AND SHALL BALANCE OUTSIDE AIR AND RETURN AIR FLOWS AT THE AIR HANDLER TO AIR QUANTITIES INDICATED IN THE SCHEDULE. PROVIDE NEW AIR FILTERS FOR EACH UNIT.
- AS REQUIRED BY LOCAL CODES, MECHANICAL CONTRACTOR SHALL PROVIDE U.L. LISTED FIRE DAMPERS WHERE REQUIRED FOR FIRE PROTECTION REQUIREMENTS OF THE HVAC SYSTEM & THE UL ASSEMBLY.
- PROVIDE 1 YEAR WARRANTY ON ALL EQUIPMENT AND 5 YEAR WARRANTY ON ALL COMPRESSORS.
- ALL INTAKE OPENINGS SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ALL EXHAUST LOCATIONS.
- CONDENSATE DRAIN PIPING SHALL BE SCHEDULE 40 PVC PIPE AND FITTINGS. DRAINS FROM AIR HANDLING UNITS SHALL BE TRAPPED AND EXTENDED TO NEAREST ROOF DRAIN.
- A COMPLETE SYSTEM OF SEISMIC RESTRAINTS SHALL BE DESIGNED BY MASON INDUSTRIES & SEALED BY THEIR REGISTERED ENGR & INSTALLED BY THIS CONTR. AS REQ'D BY APPLICABLE CODES FOR THE LOCALE OF THIS PROJECT.
- ALL MAIN DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS. RUNOUTS FROM MAIN BRANCH DUCTS MAY BE FLEXIBLE DUCT CONFORMING TO THE REQUIREMENTS OF UL 181 FOR CLASS I FLEXIBLE AIR DUCTS. MAX. LENGTH OF FLEX PER RUNOUT TO BE 7'-0".
- THE MECHANICAL CONTRACTOR SHALL PROVIDE LOW VOLTAGE CONTROL LINES TO THE ROOFTOP UNIT. COORDINATE ROUTING AND INSTALLATION WITH THE GENERAL CONTRACTOR.
- ELECTRICAL CONTRACTOR TO PROVIDE ALL HIGH VOLTAGE ELECTRICAL WIRING, CONDUIT, DISCONNECT SWITCHES, FUSES, ECT. TO ROOFTOP UNITS. ALL FINAL ELECTRICAL CONNECTIONS ARE BY ELECTRICAL CONTRACTOR.
- OUTSIDE AIR DUCTWORK SHALL BE WRAPPED WITH 1/2" FIBERGLASS DUCT WRAP WITH VAPOR BARRIER.
- MECHANICAL CONTRACTOR SHALL VERIFY LOCATION OF ALL PENETRATIONS FOR RELIEF HOODS, OUTSIDE AIR HOODS, LOUVERS, AND WALL CAPS WITH ARCHITECT & OWNER PRIOR TO INSTALLATION.
- MECHANICAL CONTRACTOR SHALL PAINT ALL RELIEF HOODS, INTAKE HOODS, LOUVERS, AND VENT CAPS. CONFIRM COLOR WITH ARCHITECT & OWNER PRIOR TO INSTALLATION.
- SEE PLUMBING SHEETS FOR ALL GAS PIPING INFORMATION AND DETAILS.
- PENETRATIONS OF RATED WALLS, PARTITIONS AND FLOORS OF NON-COMBUSTIBLE CONSTRUCTION SHALL BE FIRESTOPPED WITH NONCOMBUSTIBLE MATERIALS. PENETRATIONS OF NONRATED WALLS, PARTITIONS AND FLOORS OF COMBUSTIBLE CONSTRUCTION SHALL BE FIRESTOPPED WITH MATERIALS EQUIVALENT TO TWO INCHES OF WOOD. FIRESTOPPING SHALL COMPLY WITH ASTM E-814.
- KITCHEN HOOD EXHAUST DUCT SHALL BE 16 GAUGE CARBON STEEL. JOINTS AND SEAMS SHALL BE CONSTRUCTED WITH A CONTINUOUS LIQUID-TIGHT EXTERNAL WELD. ALL DUCTWORK SHALL SLOPE A MINIMUM OF 1/8" PER FOOT TOWARD HOOD. PROVIDE CLEANOUTS AT EVERY CHANGE OF DIRECTION IN THE EXHAUST DUCT.
- ALL CUTTING AND PATCHING OF WALLS AND FLOORS FOR MECHANICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.

### MECHANICAL LEGEND

	RECTANGULAR DUCT
	ROUND METAL DUCT
	FLEX/RIGID ROUND DUCT
	ELBOW WITH TURNING VANES
	VOLUME DAMPER
	SUPPLY TAP WITH VOLUME DAMPER
	SUPPLY TAP
	SUPPLY DIFFUSER/GRILLE
	RETURN REGISTER/GRILLE
	EXHAUST REGISTER/GRILLE
	SIDEWALL DIFFUSER/GRILLE
	CEILING EXHAUST FAN
	T-STAT
	REMOTE SENSOR
	DUCT SMOKE DETECTOR
	LOUVERED DOOR (SEE ARCHITECTURAL DRAWINGS)
	3/4" DOOR UNDER CUT
	U.L. FIRE DAMPER W/ ACCESS DOOR
	REMOTE PULL STATION
	HUMIDISTAT

DIFFUSER SCHEDULE											
SYMBOL	CFM	NECK SIZE	MODULE SIZE	FRAME TYPE	PATTERN	DAMPER	MATERIAL	SERVICE	FINISH	MANUFACTURER & MODEL NO.	NOTES
A	AS NOTED	AS NOTED	24x24	LAY-IN	4-WAY	YES	PLASTIC	SUPPLY	NOTE 2	EGER ADVANTAGE SUPPLY	1-4
B	AS NOTED	AS NOTED	12x12	SURFACE	4-WAY	YES	PLASTIC	SUPPLY	NOTE 2	EGER ADVANTAGE SUPPLY	1-4
C	AS NOTED	AS NOTED	24x24	LAY-IN	PERFORATED	NO	PLASTIC	RETURN	NOTE 2	EGER ADVANTAGE RETURN	1-4
D	AS NOTED	AS NOTED	12x12	SURFACE	PERFORATED	NO	PLASTIC	EXHAUST	NOTE 2	EGER ADVANTAGE RETURN	1-4
E	AS NOTED	AS NOTED	24x24	LAY-IN	2-WAY	YES	PLASTIC	SUPPLY	NOTE 2	EGER ADVANTAGE SUPPLY	1-5
F	AS NOTED	AS NOTED	24x24	LAY-IN	3-WAY	YES	PLASTIC	SUPPLY	NOTE 2	EGER ADVANTAGE SUPPLY	1-5
G	AS NOTED	AS NOTED	24x24	LAY-IN	1-WAY	YES	PLASTIC	SUPPLY	NOTE 2	EGER ADVANTAGE SUPPLY	1-5

**NOTES:**  
 1. DIFFUSER DESIGNATIONS ON PLANS AS FOLLOWS:  
 DIFFUSER OR NECK SIZE: DIFFUSER TYPE AS NOTED ABOVE

### VENTILATION CALCULATIONS

RTU-1, 2 (KITCHEN)  
 (1252 SQFT) X (170 PEOPLE/1000 SQFT) X (7.5 CFM/PERSON) + (1252 SQFT) X (0.18 CFM/SQFT) = 657 CFM + 225 CFM = 882 CFM  
 TOTAL: 882 CFM  
 VOLUME = VOLUME / 0.8 = 1103 CFM  
 RTU-1, 2 PROVIDE 1500 CFM OF OUTSIDE AIR TO SPACE.  
 KEF-1, 2, 3 KITCHEN  
 = (1480 SQFT) X (0.7 CFM/SQFT) = 1036 CFM  
 KEF-1, 2, 3 EXHAUSTS 5081 CFM TOTAL TO KITCHEN.

### HOOD SCHEDULE

UNIT DESIG.	LOCATION	MANUFACTURER & MODEL #	LENGTH (IN)	EXHAUST CFM	SUPPLY CFM	NOTES
H-1	GRILL	CAPTIVE-AIRE ND-2-PSF-F	9'-6"	2136	1710	1
H-2	FRYER	CAPTIVE-AIRE ND-2-PSF-F	9'-6"	2136	1710	1
H-3	OVEN	CAPTIVE-AIRE ND-2-ACPSF-F	6'-0"	1200	860	1

**NOTES:**  
 1. HOOD PACKAGE PROVIDED BY OTHERS. INFORMATION SHOWN FOR REFERENCE ONLY.

### PACKAGED DX COOLING / GAS HEATING ROOF TOP UNIT SCHEDULE

UNIT	SERVICES	SUPPLY - FAN DATA				HEATING CAPACITY		COOLING CAPACITY		ELECTRICAL DATA			MANUFACTURER & MODEL	UNIT TONNAGE	EER/SEER	UNIT WEIGHT (LBS)	NOTES	
		TOTAL CFM	O/A CFM	INLET S.P. (IN.W.G.)	FAN RPM	MOTOR H.P.	INPUT M.B.H.	OUTPUT M.B.H.	TOTAL M.B.H.	SENSIBLE M.B.H.	VOLTY/PH	MAX FUSE						MCA
RTU-1		5000	1800	1.0"	MFG	3.0	180	144	147.6	113.7	208/3P	80	61.0	LENOX LGH504B	12.5	10.8 EER	1606	1-12
RTU-2	KITCHEN	4000	900	1.0"	MFG	3.0	180	144	131.4	98.3	208/3P	60	51.0	LENOX LGH204B	10	12.0 EER	1516	1-12

- NOTES:**
- COOLING CAPACITIES ARE RATED IN ACCORDANCE WITH ARI STANDARD 210/290 AT 95°F AMBIENT OUTDOOR AIR TEMP., 80°F DRY BULB, 67° WET BULB ENTRANCE AIR TEMP., AND NOMINAL AIR QUANTITY LISTED. EFFICIENCIES ARE RATED AT ARI CONDITIONS IN ACCORDANCE WITH ARI 360-06.
  - PROVIDE MANUFACTURER'S 7-DAY PROGRAMMABLE AUTOMATIC CHANGEOVER HEAT/COOL THERMOSTAT EQUAL TO MODEL Y5656 WITH MATCHING SUBBASE FOR EACH UNIT AND MODEL 17160 HUMIDITY SENSOR FOR EACH UNIT. PROVIDE UNIT WITH HAIL GUARDS. INTERLOCK SUPPLY FAN WITH KITCHEN HOOD EXHAUST FANS FOR SIMULTANEOUS OPERATION.
  - PROVIDE FACTORY ROOF CURBS WITH THRU THE BASE GAS/ELECTRICAL SERVICE AND AIR SIDE ECONOMIZER SECTION WITH BAROMETRIC RELIEF FOR EACH UNIT.
  - PROVIDE NEW FILTERS (30% EFFICIENT) FOR EACH UNIT AT TURNOVER TO OWNER.
  - DUCT SMOKE DETECTOR TO BE FURNISHED BY E.C. AND INSTALLED BY M.C. AND WIRED/TESTED BY E.C.
  - FOR ORDERING INFORMATION, CONTACT LENOX NATIONAL ACCOUNTS - 800-367-6285.
  - COORDINATE RTU FRAME OPENINGS WITH ROOF TRUSS FABRICATOR AND RTU LOCATIONS WITH SPRINKLER LAYOUT VIA GC.
  - UNITS WITH HEATING CAPACITY OVER 115 MBH SHALL BE TWO STAGE MODULATING. UNITS 7.5 TONS AND LARGER SHALL HAVE DUAL COMPRESSORS.
  - ROUTE CONDENSATE DRAIN TO ROOF DRAIN.
  - DUCTWORK SHALL BE EXTENDED THRU ROOF DECK AND CONNECTED DIRECTLY TO ROOFTOP UNIT OPENINGS.
  - PROVIDE WITH HUMIDITROL OPTION AND HUMIDISTAT.
  - LABEL EACH RTU WITH ADHESIVE LETTERING, MINIMUM 2" TALL, WITH CORRESPONDING RTU NUMBER PER SCHEDULED DESIGNATION.
  - PROVIDE CORROSION RESISTANT COATING ON ALL COILS FOR LOCATIONS WITHIN 20 MILES OF COAST.

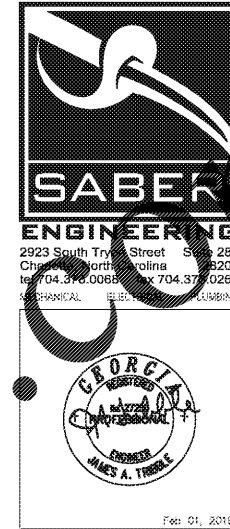
### FAN SCHEDULE

UNIT NO.	SERVICE	AREA SERVED	CFM	S.P.	RPM	TYPE & ARRANGEMENT	MIN. MOTOR HP & VOLTAGE	MANUFACTURER & MODEL NO.	DRIVE	CONTROL SCHEME	REMARKS
EF-1	EXHAUST	TOILETS	300 MIN	0.25"	1050	ROOF	1/4 HP 120/1P	GREENHECK GB-080-4	BELT	D	1 2 4 5 7
EF-2	EXHAUST	MOP SINK	300	0.25"	990	ROOF	1/4 HP 120/1P	GREENHECK GB-080-4	BELT	D	1 2 4 5 7
EF-3	EXHAUST	DUMPSTER STOR.	150	0.25"	1400	CABINET	1/3 WATTS/1.3A 120/1P	GREENHECK SP-A19D	DIRECT	B	1 2 3 4 5
KSF-1	MAKE UP AIR	KITCHEN MUA	4260							C	6
KEF-1	EXHAUST	HOOD-1 EXHAUST	2136							C	6
KEF-2	EXHAUST	HOOD-2 EXHAUST	2136							C	6
KEF-3	EXHAUST	HOOD-3 EXHAUST	1200							C	6

- NOTES:**
- SCREEN
  - BACKDRAFT DAMPER
  - COLOR BY ARCHITECT
  - INTEGRAL DISCONNECT SWITCH
  - PROVIDE WITH ROOF CURBS
  - HOOD/FAN PACKAGE FURNISHED BY OTHERS. INFORMATION SHOWN FOR REFERENCE ONLY.
  - U.L. LISTED

- CONTROL OPTIONS:**
- CONTROL W/ ROOM LIGHTS
  - CONTROL W/ THERMOSTAT
  - CONTROL W/ TEMPERATURE SENSOR MOUNTED IN DUCT COLLAR
  - INTERLOCK WITH RTU T-STAT OCCUPIED/VACUATED MODE

THE ARCHITECT/ENGINEER DOES NOT DEFINE THE SCOPE OF INDIVIDUAL TRADES, SUBCONTRACTORS, MATERIAL SUPPLIERS, OR VENDORS. ANY SHEET NUMBERING SYSTEM USED WHICH IDENTIFIES DISCIPLINES IS SOLELY TO SEPARATE ARCHITECT'S AND ENGINEER'S SCOPE. IT DOES NOT DEFINE A SUBCONTRACTOR'S SCOPE OF WORK. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, CODES OR CONSTRUCTION SEQUENCING SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING. NO CONSIDERATION WILL BE GIVEN TO REQUESTS FOR CHANGE ORDERS FOR FAILURE TO OBTAIN AND REVIEW THE COMPLETE SET OF CONSTRUCTION DOCUMENTS, OR FOR FAILURE TO SEEK INTERPRETATION FROM ARCHITECT FOR DISCREPANCIES.



NOT FOR CONSTRUCTION PRELIM-BUDGET

BOJANGLES' 14 RESTAURANT  
 HUDSON BRIDGE ROAD  
 AT WILLIS DRIVE  
 STOCKBRIDGE, GEORGIA

NOT FOR CONSTRUCTION PRELIM-BUDGET

ISSUE DATE: 02-08-2019  
 REVISION 1: \_\_\_\_\_  
 REVISION 2: \_\_\_\_\_  
 REVISION 3: \_\_\_\_\_  
 REVISION 4: \_\_\_\_\_  
 PROJECT #: 18-164-000  
 CONTENT: MECHANICAL NOTES, LEGEND, AND SCHEDULES

PROJECT ENGINEER: SABER  
 DRAWN BY: \_\_\_\_\_

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