



Engineering Consultant

AIR DEVICE SCHEDULE

PLAN MARK	MANUFACTURER/ MODEL NUMBER	MODULE	AIR FLOW DIRECTION	FRAME
S1	MILL HARDWARE 3T16(X)	24x24	4-WAY	LAY-IN
S2	MILL HARDWARE 3T16(X)2WT	24x24	2-WAY	LAY-IN
S3	MILL HARDWARE 3T16(X)2WC	24x24	2-WAY	LAY-IN
S4	MILL HARDWARE 3T16(X)3W	24x24	3-WAY	LAY-IN
S5	MILL HARDWARE 3T18(Y)	24x24	PERFORATE	LAY-IN
S6	MILL HARDWARE 3T46(D)2WC	12x12	2-WAY	LAY-IN DRYWALL
S7	TITUS S300 FL	16x8	DUAL DEFLECTION	DUCT MTD
S8	TITUS ML-39	48x6 3-SLOT	LINEAR	WALL MTD
S9	TITUS ML-39	36x8 4-SLOT	LINEAR	LAY-IN
R1	MILL HARDWARE 3T16(Z)	24x24	-	LAY-IN DRYWALL
R2	MILL HARDWARE 3T46(B)	12x12	-	LAY-IN DRYWALL
R3	TITUS PAR	60x24	PERFORATED	WALL MTD
E1	MILL HARDWARE 3T46(C)	12x12	-	DRYWALL

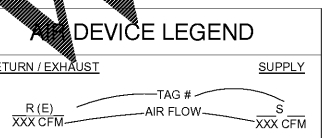
NECK DIA. (X)	(Y)	(Z)	(A)	(B)	(C)	(D)
6"Ø	0	2	5	1	3	6
8"Ø	1	3	6	2	4	7
10"Ø	2	4	7	3	-	-
12"Ø	3	5	8	4	-	-
14"Ø	4	6	9	5	-	-

ADDITIONAL ORDERING INFORMATION
 3T157 - UNIVERSAL ADAPTER
 3T176 - 3T164 + 3T157
 * MUST ORDER FRAME ADDITIONALLY
 ** THE FRAME IS INCLUDED AND CAN BE USED WITH (DRYWALL) OR WITH (LAY-IN) FRAME
 *** PROVIDE WITH INSULATION BOOT
 CTP1- CEILING TILE PROTECTOR - SINGLE
 CTP5- CEILING TILE PROTECTOR - 5 PACK

FOR NATIONAL ACCOUNT CONTACT INFORMATION:
 Dave Ebner, Inc.
 Strategic Account Manager
 Office (651) 233-1582
 Cellular (612) 860-5933
 Fax (952) 405-6607
 dave.ebner@lennoxind.com
 15633 Alpine Circle
 Burnsville, MN 55306
 For Pricing information call 1-800-367-6285

HVAC LEGEND

SYMBOL	DESCRIPTION
☒	SUPPLY AIR DIFFUSER
☐	RETURN AIR GRILLE
☒	TOILET ROOM EXHAUST GRILL
●	SPRINKLER HEAD
⊙	DUCT MOUNTED SMOKE DETECTOR
→	DIRECTION OF AIR FLOW
Ⓢ	THERMOSTAT (CONTROLLER)
⊙	TEMPERATURE SENSOR
F.O.I.C	FURNISH BY OWNER INSTALL BY CONTRACTOR
F.C.I.C	FURNISH BY CONTRACTOR INSTALL BY CONTRACTOR



BRANCH DUCT SCHEDULE

SUPPLY AIR (CFM)	ROUND DUCT SIZE (Ø")
0 TO 100	6"Ø
100 TO 200	8"Ø
200 TO 400	10"Ø
400 TO 600	12"Ø
600 TO 700	14"Ø

AIR BALANCE SCHEDULE

PLAN MARK	EXHAUST	SUPPLY
EF-1	-900	-
EF-2	-500	-
EF-3	-400	-
EF-4	-300	-
RTU-1	-	+800
RTU-2	-	+800
RTU-3	-	+150
RTU-4	-	+350
NET EXH.	-1700	
NET SUPPLY		+2100
GROSS SPACE PRESSURE		+400

INTERMITTENT - NOT INCLUDED IN AIR BALANCE
 NOTES:
 ALL RTU FANS SHALL RUN CONTINUOUSLY DURING STORE OPERATION HOURS INCLUDING NIGHT BAKERY SHIFT.

OUTSIDE AIR CALCULATION

BASED ASHRAE 62.1 INDOOR AIR QUALITY PROCEDURE, PER 2017 FLORIDA MECHANICAL CODE

Zone Name / Space Name	Supply Air (CFM)	Space Floor Area (SF)	Avg. Outdoor Air Rate (CFM/SF)	Time (hr)	Personnel (Person)	Air Distribution Efficiency	Outdoor Air (CFM)	Zone Outdoor Air (CFM)	Zone Ventilation Efficiency (E _z)	Space Ventilation Efficiency (E _s)
Zone 1	1206	1000	1.2	1	1	0.8	1206	1206	0.8	0.8
Zone 2	1206	1000	1.2	1	1	0.8	1206	1206	0.8	0.8
Zone 3	1206	1000	1.2	1	1	0.8	1206	1206	0.8	0.8
Zone 4	1206	1000	1.2	1	1	0.8	1206	1206	0.8	0.8
TOTAL PROVIDED:	2100									

HVAC LOAD CALCULATIONS

LOADS	DESIGN COOLING		DESIGN HEATING	
	COOLING DA DB / WB	AT DES HTG	HEATING DA DB / WB	AT DES HTG
Window & Skylight Solar Loads	1063 ft²	57988	1063 ft²	3065
Wall Transmission	2575 ft²	1619	2575 ft²	4340
Roof Transmission	4059 ft²	3333	4059 ft²	24739
Window Transmission	1063 ft²	7415	1063 ft²	0
Skylight Transmission	0 ft²	0	0 ft²	0
Door Loads	72 ft²	2706	72 ft²	1134
Floor Transmission	4059 ft²	0	4059 ft²	3626
Partitions	0 ft²	0	0 ft²	0
Ceiling	0 ft²	0	0 ft²	0
Overhead Lighting	5242 W	17885	0	0
Task Lighting	0 W	0	0	0
Electric Equipment	5085 W	16685	0	0
People	113	21042	0	0
Infiltration	0	0	0	0
Miscellaneous	10% / 10%	62003	50750	3711
Safety Factor	10% / 10%	21065	68523	40817
>> Total Zone Loads		231743	79223	37349
Zone Conditioning		235910	75623	37349
Plenum Wall Load	0%	0	0	0
Plenum Roof Load	0%	0	0	0
Plenum Lighting Load	0%	0	0	0
Return Fan Load	10826 CFM	0	10826 CFM	0
Ventilation Load	2100 CFM	26995	42901	75812
Supply Fan Load	12626 CFM	0	12626 CFM	0
Space Fan Coil Fans	0	0	0	0
Duct Heat Gain Loss	0%	0	0%	0
>> Total System Loads		269606	119794	113162
Central Cooling Coil		266507	119728	0
Central Heating Coil		0	0	113162
>> Total Conditioning		266507	119728	113162

EXHAUST FAN SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	TYPE	SP	CFM	ELECTRICAL	OPTIONS	REMARKS
EF-1	CAPTIVE-AIRE	DU50 FLA	UPBLAST	0.5'	900	120/1/60 1/2 HP	ROOF CURB	F.O.I.C.
EF-2	CAPTIVE-AIRE	DU30 HFA	UPBLAST	0.5'	500	120/1/60 1/4 HP	ROOF CURB	F.O.I.C.
EF-3	CAPTIVE-AIRE	DU30 HFA	UPBLAST	0.5'	400	120/1/60 1/4 HP	ROOF CURB	F.O.I.C.
EF-4	GREENHECK	GB-091-6	ROOF MTD	0.375'	300	120/1/60 1/6 HP	ROOF CURB, BACK DRAFT DAMPER	F.C.I.C.

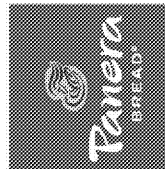
ROOFTOP UNIT SCHEDULE

PLAN MARK	MANUFACTURER MODEL NUMBER	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM) MIN.	EXTERNAL S.P. IN (WG)	MOTOR	COOLING CAPACITY		HEATING CAPACITY		ENTERING AIR DEGREE F		AMBIENT AIR (DEG F)	FILTER TYPE	HEATING STAGE(S)	COOLING STAGE(S)	T-STAT TYPE	VOLTS	PH	HZ	MCA/MOCP	OPERATING WEIGHT LBS.	NOTES	
						MBH/TON	EER/EER	NG INPUT(MBH)	NG OUTPUT(MBH)	ELEC KW	DRY BULB												WET BULB
RTU-1	LENNOX LCH 120 HB4B	4000	800	0.5'	3 HP	122/10	12.3/13.2	-	-	15 KW	80	67	95°	THROW AWAY	ONE	TWO	TWO PIECE PROGRAM.	208	3	60	53/60	1396	1,2,3,4,5,6,7
RTU-2	LENNOX LCH 120 HB4B	4000	800	0.5'	3 HP	122/10	12.3/13.2	-	-	15 KW	80	67	95°	THROW AWAY	ONE	TWO	TWO PIECE PROGRAM.	208	3	60	53/60	1396	1,2,3,4,5,6,7
RTU-3	LENNOX LCH 092 HB4B	3000	150	0.5'	2 HP	93/7.5	12.7/13.0	-	-	7/5 KW	80	67	95°	THROW AWAY	ONE	TWO	TWO PIECE PROGRAM.	208	3	60	42/50	1298	1,2,3,4,5,6,7
RTU-4	LENNOX LCH 072 HB4B	2400	350	0.5'	1 HP	72.0/6	12.0/13.5	-	-	7.5 KW	80	67	95°	THROW AWAY	ONE	ONE	TWO PIECE PROGRAM.	208	3	60	34/50	985	1,2,3,4,5,6,7

NOTES:
 1. FURNISH ROOF CURB FOR INSTALLATION.
 2. FURNISH UNIT WITH ECONOMIZER DAMPER & BAROMETRIC RELIEF DAMPER.
 3. RUN CONDENSATE LINE TO NEAREST ROOF DRAIN.
 4. PROVIDE W/ NON FUSIBLE DISCONNECT SWITCH.
 5. PROVIDE W/ HOT GAS REHEAT (HUMIDITY CONTROL SYSTEM).
 6. PROVIDE W/ CORROSION PROTECTION COAT.
 7. PURCHASE FROM NATIONAL ACCOUNT SEE CONTACTS THIS SHEET.

Order Plans

ISSUE FOR REVIEW



Bakery Cafe #6119
 6351 MANATEE AVE. W,
 BRADENTON, FL 34209

NO.	DESCRIPTION	DATE

MECHANICAL SCHEDULES
 Project Number: _____ Sheet Number: _____
 449-18
 Drawn: _____ Checked: _____
 AGC MG **M201**
 Issue Date: _____
 10/01/18
 DPM: _____ DM: _____ CPM: _____
 BS: _____ DM: _____ ME: _____