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NATIONAL TAB
INTELLIGENCE

For:
National TAB
1329 E Kemper Rd, Suite 4210
Cincinnati, OH 45246

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 11/15/2024

PROJECT

10-28-24 SWEETGREEN MANSFIELD, MA (TAB, IAQ)

280 SCHOOL ST

MANSFIELD, MA

Client

Majestic Construction

344 JOHN DIETSCH BLVD

UNIT 14

NORTH ATTLEBORO, MA

National TAB

Project: 10-28-24 SWEETGREEN MANSFIELD, MA (TAB, IAQ)

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Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's (Roof Top Units) w/ Diffusers

Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles

The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances of -0.02" wc to +0.02" wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.

The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	DINING	1900	1906	1305	1284	595	622	31.3%	32.6%						
RTU-2	KITCHEN	1200	1285	1030	1120	170	165	14.2%	12.8%						
EF-1	OVEN											555	540		
EF-3	RESTROOM													200	217
TOTALS		3100	3191	2335	2404	765	787			0	0	555	540	200	217

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	765	787
TOTAL EXHAUST	755	757
NET AIRFLOW	10	30

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.008
SIDE	
REAR	0.002
AVERAGE	**0.005**

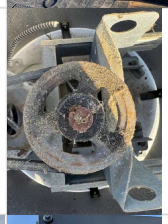
FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

Description	Photo 1	Photo 2	Photo 3	Photo 4	Photo 5
Store Front					
EF-1					
(E) TX					
RTU-1					
RTU-2					

Fan Test Sheet

Project:	5730 Sweetgreen Mansfield	**System:**	RTU-1
Location:	Roof	**Serves:**	Dining
Instrument:	Shortridge ADM-860c	**Date:**	10/29/24

Fan Data	
Make:	Carrier
Model:	48GCEM08A2
Serial No.:	3024P79341

Motor Data			
HP:		RPM:	
Phase:	1	SF:	1.15
	Rated		Actual
Volts:	460		445-444-442
Amps:	3.00		2.7-2.5-2.5
Hz:	60		60

Air Flow Data		
	Design	Actual
Total	1,900	1,906
Outside Air	595	622

Drive Data		
	Size	Bore
Motor		
Fan		
Belts	Direct Drive	
Centerline Dist.		
	Design	Actual
Fan RPM		High

Static Pressure		
Design:	0.75	in.w.c.
Suction:	-0.74	in.w.c.
Discharge:	1.38	in.w.c.
Actual:	2.12	in.w.c.

Duct					**Design**		**Actual**				**Notes**
No.	**Height**	**Width**	**Insul.**	**Area**	**FPM**	**CFM**	**AFPM**	**CFM**	**SP**	**%**	
1	20	35		4.86	122	595	128	622		105%	OA Intake

Notes:

Outside air minimum damper position 25%.

Project:	5730 Sweetgreen Mansfield		
System:	RTU-1	**Location:**	Dining
Instrument:	Alnor RVA801	**Date:**	10/29/24

Area Served	Outlet					Design		Final		Notes
	Drwg	No.	Type	Size	Ak	FPM	CFM	FPM	CFM	
Dining	H-100	1	SR	12x6	0.35	344	120	311	108	
Dining	H-100	2	SR	12x6	0.35	344	120	325	113	
Dining	H-100	3	SR	12x6	0.35	330	115	345	120	
Dining	H-100	4	SR	12x6	0.35	330	115	357	124	
Circulation	H-100	5	CD	8	DR		150		163	
Mech Closet	H-100	6	CD	8	DR		100		98	
East Restroom	H-100	7	CD	6	DR		60		58	
West Restroom	H-100	8	CD	6	DR		60		61	
Dining	H-100	9	SR	12x6	0.35	344	120	323	113	
Dining	H-100	10	SR	12x6	0.35	330	115	319	111	
Dining	H-100	11	SR	12x6	0.35	330	115	347	121	
Dining	H-100	12	SR	12x6	0.35	344	120	351	122	
Dining	H-100	13	SR	12x6	0.35	344	120	319	111	
Dining	H-100	14	SR	12x6	0.35	344	120	322	112	
Dining	H-100	15	SR	12x6	0.35	330	115	328	114	
Dining	H-100	16	SR	12x6	0.35	344	120	372	130	
Dining	H-100	17	SR	12x6	0.35	330	115	358	125	
							1900		1906	
Notes:										

Fan Test Sheet

Project:	5730 Sweetgreen Mansfield	**System:**	RTU-2
Location:	Roof	**Serves:**	Kitchen
Instrument:	Shortridge ADM-860c	**Date:**	11/14/24

Fan Data	
Make:	Carrier
Model:	48FCDA04A2A6A0A0CO
Serial No.:	3124C05164

Air Flow Data		
	Design	Actual
Total	1,200	1,285
Outside Air	170	165

Static Pressure		
Design:	0.75	in.w.c.
Suction:	-0.15	in.w.c.
Discharge:	0.17	in.w.c.
Actual:	0.33	in.w.c.

Motor Data			
HP:		RPM:	
Phase:	3	SF:	1.15
	Rated		Actual
Volts:	460		422-418-421
Amps:	1.20		.9-.8-.9
Hz:	60		60

Drive Data		
	Size	Bore
Motor		
Fan		
Belts	Direct Drive	
Centerline Dist.		
	Design	Actual
Fan RPM		Low

Duct					**Design**		**Actual**				**Notes**
No.	**Height**	**Width**	**Insul.**	**Area**	**FPM**	**CFM**	**AFPM**	**CFM**	**SP**	**%**	
1	8	30		1.67	102	170	99	165		97%	OA Intake

Notes:

Outside air minimum damper position 25%.

Outlet Test Sheet

Project:	5730 Sweetgreen Mansfield		
System:	RTU-2	**Location:**	Kitchen
Instrument:	Shortridge ADM-860c	**Date:**	10/29/24

Area Served	Outlet					Design		Final		Notes
	Drwg	No.	Type	Size	Ak	FPM	CFM	FPM	CFM	
Warewash	H-100	18	CD	10	DR		250		272	
Office	H-100	19	CD	10	DR		200		208	
Kitchen	H-100	20	CD	10	DR		250		268	
OLO Line	H-100	21	CD	10	DR		250		272	
OLO Line	H-100	22	CD	10	DR		250		265	
							1200		1285	
Notes:										

Fan Test Sheet

Project:	5730 Sweetgreen Mansfield	**System:**	EF-1
Location:	Roof	**Serves:**	Kitchen
Instrument:	Shortridge ADM-860c	**Date:**	10/29/24

Fan Data	
Make:	Greenheck
Model:	CUE- 099-4-V6-1-19-X
Serial No.:	25557950

Air Flow Data		
	Design	Actual
Total	555	597

Static Pressure		
Design:	0.75	in.w.c.
Suction:	-0.39	in.w.c.
Discharge:	Free	in.w.c.
Actual:		in.w.c.

Motor Data			
HP:	0.25	RPM:	300-1750
Phase:	1	SF:	1.25
	Rated		Actual
Volts:	115		112
Amps:	2.85		1.7
Hz:	60		60

Drive Data		
	Size	Bore
Motor		
Fan		
Belts	Direct Drive	
Centerline Dist.		
	Design	Actual
Fan RPM		Speed 5.5

Notes:

Outlet Test Sheet

Project:	5730 Sweetgreen Mansfield		
System:	EF-1	**Location:**	Dining
Instrument:	Shortridge ADM-860c	**Date:**	10/29/24

Area Served	Outlet					Design		Final		Notes
	Drwg	No.	Type	Size	Ak	FPM	CFM	FPM	CFM	
Kitchen	H-100		CR	12	DR		555		597	
Notes:										

Fan Test Sheet

Project:	5730 Sweetgreen Mansfield	**System:**	(N)TX
Location:	Roof	**Serves:**	Restrooms
Instrument:	Shortridge ADM-860c	**Date:**	11/14/24

Fan Data	
Make:	Greenheck
Model:	G-090-088117X90
Serial No.:	24175852

Air Flow Data		
	Design	Actual
Total	200	217

Static Pressure		
Design:		in.w.c.
Suction:	-0.25	in.w.c.
Discharge:	Free	in.w.c.
Actual:		in.w.c.

Motor Data			
HP:	0.07	RPM:	1550
Phase:	1	SF:	1.15
	Rated		Actual
Volts:	120		114
Amps:	1.20		0.8
Hz:	60		60

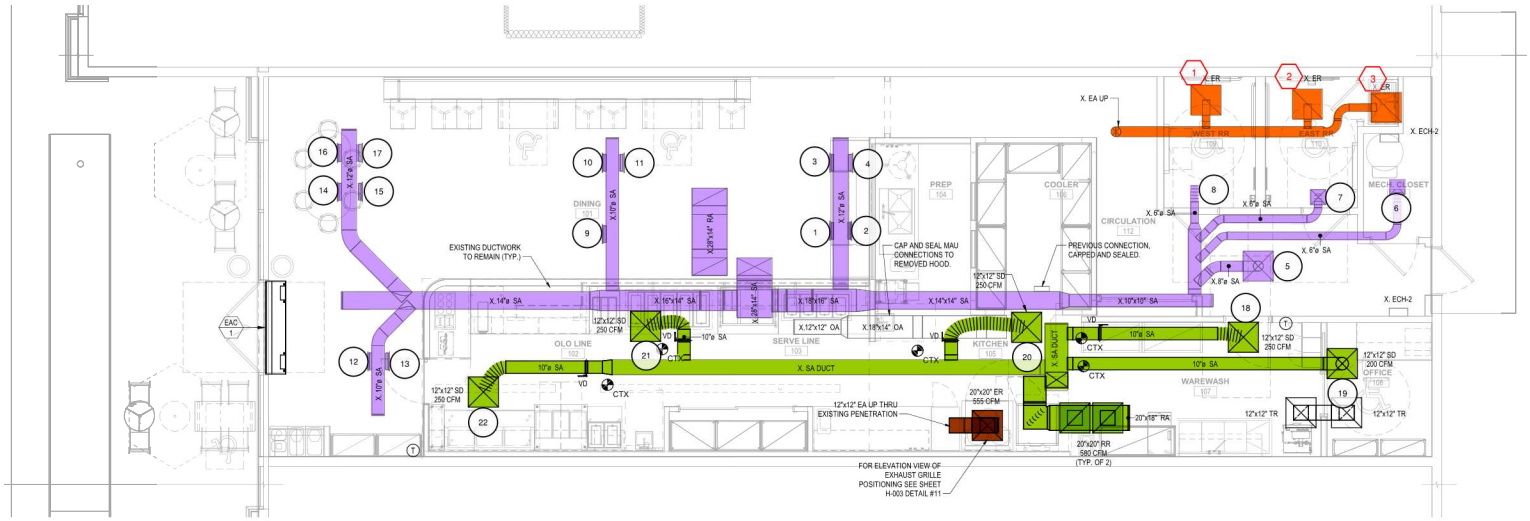
Drive Data		
	Size	Bore
Motor		
Fan		
Belts	Direct Drive	
Centerline Dist.		
	Design	Actual
Fan RPM		

Notes:

Outlet Test Sheet

Project:	5730 Sweetgreen Mansfield		
System:	(E)TX	**Location:**	Kitchen
Instrument:	Shortridge ADM-860c	**Date:**	11/14/24

Area Served	Outlet					Design		Final		Notes
	Drwg	No.	Type	Size	Ak	FPM	CFM	FPM	CFM	
West Restroom	H-100	1	CR	8x8	DR		100		108	
East Restroom	H-100	2	CR	8x8	DR		100		109	
East Restroom	H-100	3								deleted
							200		217	
Notes:										



1 First Floo
1/4" = 1'-