

Report By:

National TAB



Report: Prelim Report
Function: Test, Adjust, & Balance
Date: 07/31/2025
Completed By: National TAB

PROJECT
07-28-25 WAWA #7607 LOUISVILLE, KY

4313 BARDSTOWN RD

LOUISVILLE, KY 40218

Client

Wawa

260 West Baltimore Pike

Wawa, PA 19063

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Project: 07-28-25 WAWA #7607 LOUISVILLE, KY

System/Unit: AHU/RTU



Asset: RTU1

AREA:BOH

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5624L04597
Model Num	LCT150H4E	LCT150H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	16"X25"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X25"X2"

Motor Data		
	Design	Actual
Motor MFG	-	EBM PAPST
Horsepower	3.75	3.8
Motor Rpm	-	1780
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.7

Test Data		
	Design	Actual
SF CFM	4500	4446
SF RPM	-	1339 VIA LENNOX CORE APP
MOTOR RPM	-	1339 VIA LENNOX CORE APP
RA CFM	3800	3754
OA CFM	700	692
RL Voltage	-	208.2/207.8/209.3
RL Amperage	-	3.81/3.83/3.95
SF System SetPt	-	76%
RA Damper Position	-	75%
OA Damper Position	-	25%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.61"
Fan Suction SP	-	-1"
Fan Discharge SP	-	0.43"
Total ESP	.70"	1.04"
Fan Total SP	-	1.43"

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AHU/RTU



Diffuser Supply (GRD)

RTU1/BOH

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	TRASH/STAGING	SD1	10"	300	1	178	303	303	101.0
SGRD2	BOH	SD6	10"	400	1	203	397	397	99.3
SGRD3	FOOD SERVICE	SD6	10"	425	1	336	395	395	92.9
SGRD4	FOOD SERVICE	SD6	10"	500	1	687	482	482	96.4
SGRD5	FOOD SERVICE	SD6	10"	425	1	312	419	419	98.6
SGRD6	BOH	SD6	10"	400	1	345	429	429	107.3
SGRD7	BOH	SD6	10"	400	1	312	386	386	96.5
SGRD8	FOOD SERVICE	SD6	10"	425	1	398	427	427	100.5
SGRD9	FOOD SERVICE	SD6	10"	425	1	592	406	406	95.5
SGRD10	FOOD SERVICE	SD6	10"	425	1	311	414	414	97.4
SGRD11	ELECTRICAL ROOM	SD1	10"	375	1	98	388	388	103.5
Total				4500		3772	4446	4446	98.8%

Diffuser Ret/Exh (GRD)

RTU1/BOH

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	BOH	RG1	16X14	1200	1	1089	1089	1089	90.8
EGRD2	BOH	RG1	14"	865	1	813	813	813	94.0
EGRD3	BOH	RG1	14"	865	1	822	822	822	95.0
EGRD4		RG1	14"	870	1	782	784	784	90.1
Total				3800		3506	3508	3508	92.32%

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System/Unit: AHU/RTU



Asset: RTU2

AREA:SALES

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5624L02339
Model Num	LGT102H4E	LGT102H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	16"X25"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X25"X2"

Motor Data		
	Design	Actual
Motor MFG	-	EBM PAPST
Horsepower	3.75	3.8
Motor Rpm	-	1780
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.7

Test Data		
	Design	Actual
SF CFM	3400	3421
SF RPM	-	1335 VIA LENNOX CORE APP
MOTOR RPM	-	1335 VIA LENNOX CORE APP
RA CFM	3020	3019
OA CFM	380	402
RL Voltage	-	208.4/207.3/209.2
RL Amperage	-	3.64/3.54/3.58
SF System SetPt	-	75%
RA Damper Position	-	80%
OA Damper Position	-	20%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.51"
Fan Suction SP	-	-0.92"
Fan Discharge SP	-	0.43
Total ESP	1.00"	0.94"
Fan Total SP	-	1.35"

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AHU/RTU



Diffuser Supply (GRD)

RTU2/SALES

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	RETAIL	SD2	12"	275	0.4	567	283	283	102.9
SGRD2	RETAIL	SD2	12"	300	0.4	187	306	306	102.0
SGRD3	RETAIL	SD2	12"	275	0.4	221	267	267	97.1
SGRD4	RETAIL	SD2	12"	275	0.4	362	281	281	102.2
SGRD5	RETAIL	SD2	12"	275	0.4	387	287	287	104.4
SGRD6	RETAIL	SD2	12"	275	0.4	208	264	264	96.0
SGRD7	RETAIL	SD2	12"	275	0.4	178	283	283	102.9
SGRD8	RETAIL	SD2	12"	275	0.4	473	277	277	100.7
SGRD9	RETAIL	SD2	12"	275	0.4	203	291	291	105.8
SGRD10	DELIVERY ROOM	SD1	8"	250	1	278	234	234	93.6
SGRD11	MENS RR	SD1	8"	150	1	163	149	149	99.3
SGRD12	VESTIBULE	SD1	8"	200	1	176	191	191	95.5
SGRD13	HALLWAY	SD1	8"	200	1	243	201	201	100.5
SGRD14	WOMENS RR	SD1	8"	100	1	187	107	107	107.0
Total				3400		3833	3421	3421	100.62%

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System/Unit: AHU/RTU



Asset: RTU3

AREA:FOH

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5624M01117
Model Num	LGT072H4E	LGT072H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	16"X30"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X20"X2"

Motor Data		
	Design	Actual
Motor MFG	-	EBM PAPST
Horsepower	1	1.5
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	4.4

Test Data		
	Design	Actual
SF CFM	2400	2394
SF RPM	-	2970 VIA LENNOX CORE APP
MOTOR RPM	-	2970 VIA LENNOX CORE APP
RA CFM	2200	2183
OA CFM	200	211
RL Voltage	-	207.3/208.4/207.2
RL Amperage	-	3.04/3.03/3.12
SF System SetPt	-	90%
RA Damper Position	-	75%
OA Damper Position	-	25%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.1"
Fan Suction SP	-	-1.3"
Fan Discharge SP	-	0.5"
Total ESP	.50"	0.6"
Fan Total SP	-	1.8"

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AHU/RTU



Diffuser Supply (GRD)

RTU3/FOH

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	SALES	SD2	14"	450	0.4	643	437	437	97.1
SGRD2	SALES	SD2	14"	450	0.4	342	442	442	98.2
SGRD3	SALES	SD2	14"	450	0.4	367	461	461	102.4
SGRD4	SALES	SD2	18"	450	0.4	598	443	443	98.4
SGRD5	VESTIBULE	SD5	8"	250	1	182	245	245	98.0
SGRD6	OFFICE	SD1	18"	150	1	263	162	162	108.0
SGRD7	OFFICE	SD1	8"	200	1	253	204	204	102.0
Total				2400		2648	2394	2394	99.75%

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System/Unit: FAN - Exhaust



Asset: EF1

AREA:RESTROOMS

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	GB-098-6	GB-098-6
Serial Num	-	26395763
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	375	381
Fan Rotation	-	CCW
Suction ESP	-	-0.2"
Discharge ESP	-	ATM
Total ESP	-	0.2"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	48Y
Horsepower	-	0.16
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3.6
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP25
Motor Bore Size	VP25
Motor Sheave SetPt	2 TURNS OUT
Fan Sheave Size	AK34X3/4
Fan Sheave Bore	AK34X3/4
Belt CL Distance	5"
Num of Belts	1
Belt Size	NK-1

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FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/RESTROOMS

Asset										
Asset Name	Model Num	MFG	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	NA	NA	EG1	8X8	225	1	209	240	240	106.7
EGRD2	NA	NA	EG1	8X8	150	1	223	141	141	94.0
Total					375		432	381	381	101.6%

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System/Unit: FAN - Exhaust



Asset: EF2

AREA:BOH

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	GB-098-6	GB-098-6
Serial Num	-	26395763
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	-	383
Fan Rotation	-	CCW
Suction ESP	-	-0.2"
Discharge ESP	-	ATM
Total ESP	-	0.2"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	48Y
Horsepower	-	0.16
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3.6
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP25
Motor Bore Size	VP25
Motor Sheave SetPt	0 TURNS OUT
Fan Sheave Size	AK34X3/4
Fan Sheave Bore	AK34X3/4
Belt CL Distance	5"
Num of Belts	1
Belt Size	NK-1

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FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF2/BOH

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	EG2	8X8	200	1	101	182	182	91.0
EGRD2	EG2	8X8	200	1	182	201	201	100.5
Total			400		283	383	383	95.75%

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System/Unit: FAN - Exhaust



Asset: EF3

AREA:TRASHROOM

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	SP-B200	SP-B200
Serial Num	-	160960337-0053
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	200	219
Fan Rotation	-	CORRECT
System SetPt	-	FIXED SPEED
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Horsepower	.167	0.03
Motor Rpm	-	1000
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.7

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- [Open](#) BALANCE_SCHEDULE_7607_COMPLETED.xlsx

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.

Ceiling Exhaust Fans

The ceiling exhaust fans were measured using a flow hood. If speed adjustment was provided, the fan speed was adjusted to within design tolerance. 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 and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.