

Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
CINCINNATI, OH 45246



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 01/20/2026
Completed By: National TAB

PROJECT

01-12-26 WAWA #6618 RICHMOND, VA

7351 IRON BRIDGE ROAD

RICHMOND, VA 23234

Client

Wawa
260 West Baltimore Pike
Wawa, PA 19063

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Function: Test, Adjust, & Balance

Project Summary

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

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Project: 01-12-26 WAWA #6618 RICHMOND, VA

System/Unit: AHU/RTU



Asset: RTU1

AREA:FOOD SERVICE

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5624L02335
Model Num	LCT150H4E	LCT150H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14.1875"X23.25"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X25"X2"

Motor Data		
	Design	Actual
Motor MFG	-	EBMPAPST
Frame	-	N/L
Horsepower	3.75	3.75
Motor Rpm	-	1780
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.0
Service Factor	-	N/L

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

Test Data		
	Design	Actual
SF CFM	4500	4435
SF RPM	-	1335
MOTOR RPM	3800	1335
RA CFM	3800	3725
OA CFM	700	710
RL Voltage	-	214.7/215.4/215.4
RL Amperage	-	3.2/3.1/3.1
SF System SetPt	-	75%
RA Damper Position	-	77%
RA Damper Type	-	ECONOMIZER
OA Damper Position	-	23%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.50"
Fan Suction SP	-	-0.81"
Fan Discharge SP	-	0.36"
Total ESP	0.70"	0.86"
Fan Total SP	-	1.17"

Completed By: John Barresi on 01/14/2026

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Project:01-12-26 WAWA #6618 RICHMOND, VA

AHU/RTU



Diffuser Supply (GRD)

RTU1/FOOD SERVICE

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	FOOD SERVICE	SD-6	10"	425	1	574	442	427	100.5
SGRD2	FOOD SERVICE	SD-6	10"	425	1	470	362	395	92.9
SGRD3	FOOD SERVICE	SD-6	10"	425	1	462	360	390	91.8
SGRD4	FOOD SERVICE	SD-6	10"	425	1	512	396	426	100.2
SGRD5	FOOD SERVICE	SD-6	10"	425	1	585	450	418	98.4
SGRD6	COFFEE	SD-6	12"	500	1	646	509	539	107.8
SGRD7	FOOD SERVICE	SD-6	10"	400	1	631	486	419	104.8
SGRD8	FOOD SERVICE	SD-6	10"	400	1	585	450	401	100.3
SGRD9	FOOD SERVICE	SD-6	10"	400	1	423	328	366	91.5
SGRD10	TRASH	SD-1	10"	300	1	559	423	298	99.3
SGRD11	ELECTRICAL ROOM	SD-1	10"	375	1	382	320	356	94.9
Total				4500		5829	4526	4435	98.56%

Diffuser Ret/Exh (GRD)

RTU1/FOOD SERVICE

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FOOD SERVICE	RG-1	14"	870	1	747	747	747	85.9
EGRD2	FOOD SERVICE	RG-1	14"	865	1	623	623	623	72.0
EGRD3	FOOD SERVICE	RG-1	14"	865	1	679	679	679	78.5
EGRD4	WASHROOM	RG-1	16X14	1200	1	1114	1114	1114	92.8
Total				3800		3163	3163	3163	83.24%

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Project: 01-12-26 WAWA #6618 RICHMOND, VA

System/Unit: AHU/RTU



Asset: RTU2

AREA:RETAIL

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5624L02663
Model Num	LCT102H4E	LCT102H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14.1875"X23.25"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X25"X2"

Motor Data		
	Design	Actual
Motor MFG	-	EBMPAPST
Frame	-	N/L
Horsepower	3.75	3.75
Motor Rpm	-	1780
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.0
Service Factor	-	N/L

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

Test Data		
	Design	Actual
SF CFM	3400	3449
SF RPM	-	926
MOTOR RPM	-	926
RA CFM	3020	3060
OA CFM	380	389
RL Voltage	-	210.9/211.0/211.3
RL Amperage	-	1.6/1.7/1.6
SF System SetPt	-	52%
RA Damper Position	-	76%
RA Damper Type	-	ECONOMIZER
OA Damper Position	-	24%
OA Damper Type	-	ECONOMIZER

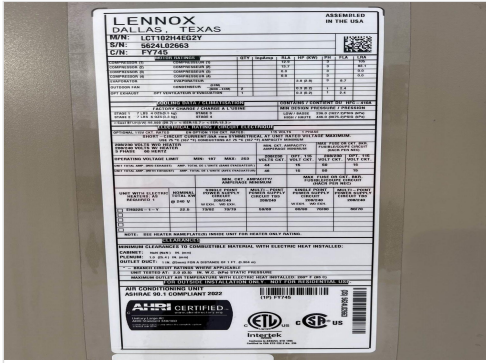
Performance Data		
	Design	Actual
MA Plenum SP	-	-0.19"
Fan Suction SP	-	-0.34"
Fan Discharge SP	-	0.29"
Total ESP	1.00"	0.53"
Fan Total SP	-	0.63"

Completed By: John Barresi on 01/14/2026

Notes:
RTU2 Final filters dirty, recommend replacing.

Written By: John Barresi on 01/12/2026

Unit Data - PHOTO LOG



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AHU/RTU



Diffuser Supply (GRD)

RTU2/RETAIL

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	RETAIL	SD-2		275	0.42	102	71	277	100.7
SGRD2	RETAIL	SD-2		275	0.42	775	543	301	109.5
SGRD3	RETAIL	SD-2		300	0.42	745	522	286	95.3
SGRD4	RETAIL	SD-2		275	0.42	402	281	268	97.5
SGRD5	RETAIL	SD-2		275	0.42	409	286	265	96.4
SGRD6	RETAIL	SD-2		275	0.42	240	168	282	102.5
SGRD7	RETAIL	SD-2		275	0.42	194	136	294	106.9
SGRD8	RETAIL	SD-2		275	0.42	184	129	296	107.6
SGRD9	HALLWAY	SD-2		275	0.42	250	175	299	108.7
SGRD10	HALLWAY	SD-1	8"	200	1	338	237	193	96.5
SGRD11	WOMENS RR	SD-5	8"	100	1	248	174	93	93.0
SGRD12	REAR VESTIBULE	SD-5	8"	200	1	261	183	195	97.5
SGRD13	MENS RR	SD-5	8"	150	1	278	195	143	95.3
SGRD14	DELIVERY ROOM	SD-1	8'	250	1	428	300	257	102.8
Total				3400		4854	3400	3449	101.44%

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Project: 01-12-26 WAWA #6618 RICHMOND, VA

System/Unit: AHU/RTU



Asset: RTU3

AREA:FOH

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5624L05432
Model Num	LCT072H4E	LCT072H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	27.625"X14.25"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X20"X2"

Motor Data		
	Design	Actual
Motor MFG	-	EBMPAPST
Frame	-	N/L
Horsepower	1.5	1.5
Motor Rpm	-	3300
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	4.4
Service Factor	-	N/L

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

Test Data		
	Design	Actual
SF CFM	2400	2458
SF RPM	-	2343
MOTOR RPM	-	2343
RA CFM	2200	2256
OA CFM	200	202
RL Voltage	-	213.9/214.6/214.8
RL Amperage	-	2.1/2.1/2.1
SF System SetPt	-	71%
RA Damper Position	-	81%
RA Damper Type	-	ECONOMIZER
OA Damper Position	-	19%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.44"
Fan Suction SP	-	-0.57"
Fan Discharge SP	-	0.32"
Total ESP	0.50"	1.01"
Fan Total SP	-	0.89"

Completed By: John Barresi on 01/14/2026

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Project:01-12-26 WAWA #6618 RICHMOND, VA

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	FOH	SD-2		450	0.42	495	421	456	101.3
SGRD2	FOH	SD-2		450	0.42	518	440	470	104.4
SGRD3	FOH	SD-2		450	0.42	598	508	474	105.3
SGRD4	FOH	SD-2		450	0.42	189	161	487	108.2
SGRD5	VESTIBULE	SD-5	8"	250	1	283	241	238	95.2
SGRD6	ASSOCIATES ROOM	SD-1	8"	200	1	391	332	198	99.0
SGRD7	OFFICE	SD-1	8"	150	1	341	290	135	90.0
Total				2400		2815	2393	2458	102.42%

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Project: 01-12-26 WAWA #6618 RICHMOND, VA

System/Unit: FAN - Exhaust



Asset: EF1

AREA:RESTROOM

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	GB-098-6	GB-098-6
Serial Num	-	27401618 25G
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	LEESON
Frame	-	48Y
Horsepower	0.167	0.167
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.6
Service Factor	-	1.15

Test Data		
	Design	Actual
CFM	375	349
Fan RPM	-	1087
Fan Rotation	-	CW
Motor RPM	-	1755
System SetPt	-	2.5 TURNS OUT
RL Voltage	-	N/A
RL Amperage	-	N/A
Total ESP	0.38"	0.11"
Fan Inlet SP	-	-0.11"
Fan Discharge SP	-	ATM

Completed By: John Barresi on 01/14/2026

Notes:
EF1 no backdraft damper installed into duct.

Written By: John Barresi on 01/14/2026

Unit Data - PHOTO LOG



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FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/RESTROOM

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	WOMENS RR	EG-1	8X8	150	1	203	145	145	96.7
EGRD2	MENS RR	EG-1	8X8	225	1	179	204	204	90.7
Total				375		382	349	349	93.07%

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Project: 01-12-26 WAWA #6618 RICHMOND, VA

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	-	28377282 25L
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	0.167	0.25
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

Test Data		
	Design	Actual
CFM	400	405
Fan RPM	-	1103
Fan Rotation	-	CW
Motor RPM	-	1103
System SetPt	-	6.3
RL Voltage	-	N/A
RL Amperage	-	N/A
Total ESP	0.38"	0.26"
Fan Inlet SP	-	-0.26"
Fan Discharge SP	-	ATM

Completed By: John Barresi on 01/14/2026

Notes:

EF2 no backdraft damper installed.

Written By: John Barresi on 01/14/2026

Unit Data - PHOTO LOG



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FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF2/BOH

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	BOH	RG-2	8X8	200	1	290	207	207	103.5
EGRD2	BOH	RG-2	8X8	200	0.66	279	198	198	99.0
Total				400		569	405	405	101.25%

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Project: 01-12-26 WAWA #6618 RICHMOND, VA

System/Unit: FAN - Exhaust



Asset: EF3

AREA:TRASH

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	SP-B200	SP-B200
Serial Num	-	200281279-0064 25F
Type	CEILING	CEILING
Configuration	HORIZONTAL	HORIZONTAL

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	0.167	0.033
Motor Rpm	-	1000
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.7
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	200	240
Fan RPM	-	1000
Fan Rotation	-	CCW
Motor RPM	-	1000
System SetPt	-	100%
RL Voltage	-	N/A
RL Amperage	-	N/A
Total ESP	0.50"	0.05"
Fan Inlet SP	-	-0.05"
Fan Discharge SP	-	ATM

Completed By: John Barresi on 01/14/2026

Notes:

EF3 no speed controller connected, fan operating at max speed.

Written By: John Barresi on 01/12/2026

Unit Data - PHOTO LOG



01/14/2026

