Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 07/09/2025

Completed By: National TAB

PROJECT

07-07-25 WAWA #8687 WILLIAMSBURG, VA

4007 IRONBOUND RD

WILLIAMSBURG, VA

Client

Wawa

260 West Baltimore Pike

Wawa, PA 19063

National TAB

Project: 07-07-25 WAWA #8687 WILLIAMSBURG, VA

Table Of Contents

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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Issue List

- Diffuser EF1-1 is not sealed with ceiling
- EF#1 is below design airflow
- EF#2 ductwork does not have dampers installed.
- Electrical Room diffusers need to be swtiched
- Gypsum Board not installed for diffuser 3-9
- Unable to turn off RTU#1 through diconnect

07-07-25 WAWA #8687 WILLIAMSBURG, VA

Project Issue Information

Issue Name : Diffuser EF1-1 is not sealed with ceiling

Description : Located in the women's restroom, there is a gap in the hard ceiling right next to the diffuser. Gap needs to be filled to seal off room from above ceiling.

Created By : National TAB **Assigned To :** National TAB - Ian Fuller

Status : Open

Priority : Medium **Asset Tag :**

Originated Date : 07/08/2025 - Ian Fuller - National TAB

Project Issue Response Details

- **07/08/2025 National TAB - Ian Fuller**
  - .

07/08/2025

07-07-25 WAWA #8687 WILLIAMSBURG, VA

Project Issue Information

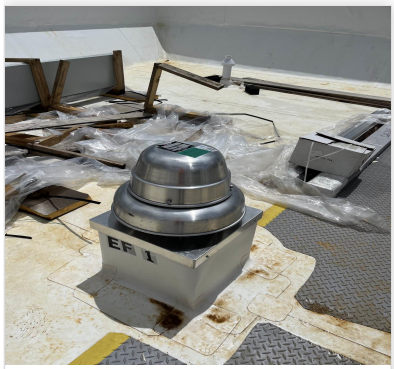
Issue Name : EF#1 is below design airflow

Description : Currently fan is at 255 CFM when design is at 300 CFM. Fan is already at max setting. Unable to balance within design airflow. Pressure in the duct was measured to be 0.17" which is enough pressure to be within design airflow. Speed controller is responding and is set at max. Recommended for manufacturer to review.

Created By : National TAB
Assigned To : National TAB - Ian Fuller
Status : Open
Priority : Urgent
Asset Tag :
Originated Date : 07/08/2025 - Ian Fuller - National TAB

Project Issue Response Details

- **07/08/2025 National TAB - Ian Fuller**
  - .



07/08/2025

07-07-25 WAWA #8687 WILLIAMSBURG, VA

Project Issue Information

Issue Name : EF#2 ductwork does not have dampers installed.
Description : Unable to balance individual diffusers for EF#2. No dampers are shown on the GRD.

Created By : National TAB
Assigned To : National TAB - Ian Fuller
Status : Open
Priority : Urgent
Asset Tag :
Originated Date : 07/09/2025 - Ian Fuller - National TAB

Project Issue Response Details

- **07/09/2025 National TAB - Ian Fuller**
  - .

07/09/2025

07/09/2025

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Project Issue Information

Issue Name : Electrical Room diffusers need to be swtiched

Description : Currently on the diffuser 2-1 located in the electrical room has a return type grille G-1 installed on it, while the transfer grille has a supply type CD-1 diffuser installed. These diffusers need to be switched.

Created By : National TAB

Assigned To : National TAB - Brianna Biggs

Status : Open

Priority : High

Asset Tag :

Originated Date : 07/08/2025 - Ian Fuller - National TAB

Project Issue Response Details

- **07/08/2025 National TAB - Ian Fuller**
  - .

07/08/2025

07-07-25 WAWA #8687 WILLIAMSBURG, VA

Project Issue Information

Issue Name : Gypsum Board not installed for diffuser 3-9

Description : As shown on M1.0 detail 11 it is stated that supply duct needs to be routed through gypsum board ceiling and into cavity above freezer. Seal duct around penetration air tight and to terminate duct with open end.

Created By : National TAB **Assigned To :** National TAB - Ian Fuller

Status : Open

Priority : Low **Asset Tag :**

Originated Date : 07/07/2025 - Ian Fuller - National TAB

Project Issue Response Details

- **07/07/2025 National TAB - Ian Fuller**
  - .

07/07/2025

07-07-25 WAWA #8687 WILLIAMSBURG, VA

Project Issue Information

Issue Name : Unable to turn off RTU#1 through diconnect
Description : Cover is blocking the RTU#1 disconnect. Unable to turn off unit at disconnect.

Created By : National TAB
Assigned To : National TAB - Ian Fuller
Status : Open
Priority : High
Asset Tag :
Originated Date : 07/09/2025 - Ian Fuller - National TAB

Project Issue Response Details

- **07/09/2025 National TAB - Ian Fuller**
  - .

07/09/2025

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	RETAIL	3400	3452	2950	2983	450	469	13.2%	13.6%						
RTU-2	FOOD SERVIC	4000	4094	3300	3362	700	732	17.5%	17.9%						
RTU-3	RETAIL	2400	2473	2050	2096	350	377	14.6%	15.2%						
EF-1	RESTROOMS													300	255
EF-2	BOH													900	955
EF-3	TRASHROOM													60	61
TOTALS		9800	10019	8300	8441	1500	1578			0	0	0	0	1260	1271

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1500	1578
TOTAL EXHAUST	1260	1271
NET AIRFLOW	240	307

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0084
SIDE	0.0045
REAR	0.0073
AVERAGE	**0.0067**

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:

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CheckList List

- 01: RTU's/AHU's
- 02: LENNOX SETUP PARAMETERS
- 03: SENSOR WIRING (LENNOX)
- 04: EF'S
- 05: CLOSEOUT CHECKS

07-07-25 WAWA #8687 WILLIAMSBURG, VA

CheckList Information

Name :	01: RTU's/AHU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/18/2025 - Tara Metcalf - National TAB		
Completed Date :	07/09/2025 - Ian Fuller - National TAB		

CheckList Item Details

RTU's/AHU's

All diffusers and grilles are installed and match design?	Fail

Comment:

DIFFUSER 2-11 DOES NOT HAVE GYPSUM BOARD ELECTRICAL ROOM DIFFUSERS NEED TO BE SWITCHED. SUPPLY GRILLE IS ON RETURN DUCT.

Clean filters installed?	Pass

Comment:

Economizers are assembled and functional?	Pass

Comment:

Motors are all operating below the FLA rating?	Pass

Comment:

Are belts tight?	N/A

Comment:

If direct drive unit is the speed controller working?	Pass

Comment:

Is gas piping installed and valves turned on?	Pass
Comment:	
Condensate drains are installed?	Pass
Comment:	
Unit free of noticeable noise and vibration	Pass
Comment:	
Final outside air damper position is marked with permanent marker?	Pass
Comment: COMPLETED	
No alarms present?	Pass
Comment:	
Any noticeable duct leakage?	Pass
Comment: NONE OBSERVED	
Total supply and OA flows are balanced within +/-5% and supply & return diffusers within +/-10%?	Pass
Comment:	
IN TEST MODE, TEST THE FOLLOWING:	
Cooling mode is operational? Record EAT/LAT for each unit:	
Comment: RTU#1: 68 / 59 RTU#2: 68/ 59 RTU#3: 72/ 64	
Heating mode is operational? Record EAT/LAT for each unit:	
Comment: RTU#1: 71/80 RTU#2: N/A Rtu#3: 73/ 84	
Dehumidification mode is operational? (Feel dehumidification coil with your hand. Is it hot?) Record EAT/LAT for each unit:	

Comment:

RTU1: 72/73 RTU2: 71/72 RTU3: 71/73

07-07-25 WAWA #8687 WILLIAMSBURG, VA

CheckList Information

Name :	02: LENNOX SETUP PARAMETERS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/18/2025 - Tara Metcalf - National TAB		
Completed Date :	07/09/2025 - Ian Fuller - National TAB		

CheckList Item Details

UNIT ID CONFIGURATIONS

BACNET CONFIGURATION: GO TO SETTINGS>GENERAL>CONFIGURATION ID1 POSITION 5 SET TO "N".	Pass
Comment:	
NETWORK CONFIGURATION: GO TO SETUP>NETWORK INTEGRATION, SET TO BACNET IP	Pass
Comment:	
CONTROL MODE: SET CONTROL MODE TO ROOM SENSOR: CO2, TEMP & HUMIDITY (PER UNIT, AS NEEDED).	Pass
Comment:	

INDIVIDUAL PARAMETER CONFIGURATIONS (MECHANICAL CONTRACTOR TO DEFINE / AS APPLICABLE):

PARAMETER 105 DEHUMID MODE: 7 NO CONDITIONS	Pass
Comment:	
PARAMETER 106 DEHUMID SETPOINT: 50, THIS IS A CENTERED SET POINT (+/-)	Yes
Comment:	
PARAMETER 107 DEHUMID DEADBAND: 3 (DEFAULT) THIS IS THE ACTUAL +/- VALUE	Pass

Comment:

PARAMETER 117 CO2 DAMPER MAX OPEN: 50%	Pass

Comment:

PARAMETER 118 CO2 START OPEN PPM: 1500	Pass

Comment:

PARAMETER 119 CO2 MAX OPEN PPM: 1500	Pass

Comment:

PARAMETER 137 OCCHET SET POINT: 68 (BACK UP)	Pass

Comment:

PARAMETER 131 SET TO THE SAME % AS THE MINMIUM OA DAMPER SETPOINT	Pass

Comment:

PARAMETER 139 OCC COOLING SET POINT: 72 (BACK UP)	Pass

Comment:

PARAMETER 154 OCC BLOWER MODE: ON-CONTINUOUS 1	Pass

Comment:

CFM VALUES / MSAV FAN SPEEDS (AIR BALANCER TO DEFINE / IF APPLICABLE):

OA DAMPER SET TO SAME POSITION IN ALL FAN SPEEDS?	Pass

Comment:

ALL FAN SPEEDS SET TO THE SAME CFM VALUE (ENTER SETPOINTS BELOW)	Pass

Comment:

RTU1: 60% RTU2: 67% RTU3: 79%

HEAT CFM VALUE: PER THE HVAC SCHEDULE	Pass

Comment:

HIGH COOL CFM VALUE: THE HIGH COOL CFM VALUE	Pass
Comment:	
LOW COOL CFM VALUE: MATCH THE HIGH COOL CFM VALUE	Pass
Comment:	
VENTILATION CFM VALUE: MATCH THE HIGH COOL CFM VALUE	Pass
Comment:	

07-07-25 WAWA #8687 WILLIAMSBURG, VA

CheckList Information

Name :	03: SENSOR WIRING (LENNOX)	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/18/2025 - Tara Metcalf - National TAB		
Completed Date :	07/09/2025 - Ian Fuller - National TAB		

CheckList Item Details

COMBINATION TEMPERATURE/HUMIDITY SENSOR

Sensors are installed where shown on the drawing?	Pass
Comment:	
2 conductor shielded cable has one wire landed to Vin, one to GND, and the shield wire is not connected.	Pass
Comment:	
For second shielded cable, one wire is landed to Vout and the shield wire is not connected.	Pass
Comment:	
Verify that the CORE or Prodigy controller is sensing a relative humidity (record the reading)	Pass
Comment:	
RTU1: 61% RTU2: 60% RTU3: 65%	

07-07-25 WAWA #8687 WILLIAMSBURG, VA

CheckList Information

Name :	04: EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/18/2025 - Tara Metcalf - National TAB		
Completed Date :	07/09/2025 - Ian Fuller - National TAB		

CheckList Item Details

EF's

Rotation is correct?	Pass
Comment:	
Belts are tight (if applicable)?	N/A
Comment:	
Speed controller installed and functional (if applicable)?	Pass
Comment:	

(RESOLVED) EF#2 speed controller is not functional. Only acts as a disconnect, when turned off motor starts smoking.

There is no major leakage around base of fan?	Pass
Comment:	
Is the motor operating below the motor FLA rating?	Pass
Comment:	
Back draft damper installed and can it fully open?	Pass
Comment:	

Unit free of noticeable noise and vibration?	Pass
Comment:	
Total exhaust flow balanced within +/-5% and grilles are within +/-10%?	Fail
Comment: EF#1 IS NOT ABLE TO BE BALANCED WITHIN DESIGN AIRFLOW. NO DAMPERS ON EF#2 DUCTWORK TO BALANCE INDIVIDUAL DIFFUSERS	

07-07-25 WAWA #8687 WILLIAMSBURG, VA

CheckList Information

Name :	05: CLOSEOUT CHECKS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/18/2025 - Tara Metcalf - National TAB		
Completed Date :	07/09/2025 - Ian Fuller - National TAB		

CheckList Item Details

SPACE COMFORT	
Is space free of drafting?	Pass
Comment:	
Is space comfortable in all areas?	Pass
Comment:	
Is the space free of ventilation noise?	Pass
Comment:	
BUILDING PRESSURE	
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	Pass
Comment:	
AVG: 0.0067"	

National TAB

Project: 07-07-25 WAWA #8687 WILLIAMSBURG, VA

System/Unit: AHU/RTU

Asset: RTU1 AREA:RETAIL

Unit Data		
	Design	**Actual**
MFG	LENNOX ENLIGHT	LENNOX
Serial Num	-	5624F02864
Model Num	LGT102H4E	LGT102H4ES1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23X14
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPAPST
Frame	-	N/A
Horsepower	3.75	3.8
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.7
Service Factor	-	N/A

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	3452
SF RPM	-	1320
RA CFM	2950	2983
OA CFM	450	469
RL Voltage	-	210/210/210
RL Amperage	-	2.3/2.3/2.3
SF System SetPt	-	60%
RA Damper Position	-	71%
OA Damper Position	-	29%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.27”
Fan Suction SP	-	-0.62”
Fan Discharge SP	-	0.21”
Total ESP	.50"	0.48"
Fan Total SP	-	0.83"

Completed By: Ian Fuller on 07/09/2025

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Unit Data - PHOTO LOG

07/09/2025

National TAB

Project:07-07-25 WAWA #8687 WILLIAMSBURG, VA

AHU/RTU

Diffuser Supply (GRD)

RTU1/RETAIL

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	RETAIL	LD1	10"	310	1	346	281	321	103.5
SGRD2	RETAIL	LD1	10"	310	1	278	225	281	90.6
SGRD3	RETAIL	LD1	10"	310	1	435	353	333	107.4
SGRD4	RETAIL	LD1	10"	310	1	351	285	305	98.4
SGRD5	RETAIL	LD1	10"	310	1	354	287	340	109.7
SGRD6	RETAIL	CD1	10"	150	1	378	306	162	108.0
SGRD7	RETAIL	LD1	10"	310	1	454	368	308	99.4
SGRD8	RETAIL	LD1	10"	310	1	417	338	311	100.3
SGRD9	RETAIL	LD1	10"	310	1	416	337	324	104.5
SGRD10	RETAIL	LD1	10"	310	1	361	293	285	91.9
SGRD11	RETAIL	LD1	10"	310	1	391	317	330	106.5
SGRD12	RETAIL	CD1	10"	150	1	289	234	152	101.3
Total				3400		4470	3624	3452	101.53%

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National TAB

Project: 07-07-25 WAWA #8687 WILLIAMSBURG, VA

System/Unit: AHU/RTU

Asset: RTU2 AREA:FOOD SERVICE

Unit Data		
	Design	**Actual**
MFG	LENNOX ENLIGHT	LENNOX
Serial Num	-	5624F04685
Model Num	LCT120H4E	LCT120H4EN1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23X14
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPAPST
Frame	-	N/A
Horsepower	3.75	3.8
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.4
Service Factor	-	N/A

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	4000	4094
SF RPM	-	1473
RA CFM	3300	3362
OA CFM	700	732
RL Voltage	-	208/209/210
RL Amperage	-	3.0/3.0/3.0
SF System SetPt	-	67%
RA Damper Position	-	71%
OA Damper Position	-	29%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.23”
Fan Suction SP	-	-0.74”
Fan Discharge SP	-	0.23”
Total ESP	.50"	0.46"
Fan Total SP	-	0.97"

Completed By: Ian Fuller on 07/09/2025

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Unit Data - PHOTO LOG

07/09/2025

Diffuser Supply (GRD)

RTU2/FOOD SERVICE

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	ELECTRICAL ROOM	CD1	12"	550	1	723	591	522	94.9
SGRD2	FOOD SERVICE	LD1	10"	320	1	371	303	344	107.5
SGRD3	RETAIL AREA	LD1	10"	315	1	331	270	315	100.0
SGRD4	RETAIL AREA	LD1	10"	315	1	358	293	342	108.6
SGRD5	RETAIL AREA	LD1	10"	315	1	497	406	332	105.4
SGRD6	RETAIL AREA	LD1	10"	315	1	455	372	320	101.6
SGRD7	RETAIL AREA	LD1	10"	315	1	358	293	309	98.1
SGRD8	RETAIL AREA	LD1	10"	315	1	460	376	320	101.6
SGRD9	RETAIL AREA	LD1	10"	320	1	431	352	338	105.6
SGRD10	RETAIL AREA	LD1	10"	320	1	383	313	326	101.9
SGRD11	BACKROOM	LD1	10"	300	1	382	312	319	106.3
SGRD12	BACKROOM	LD1	10"	300	1	355	290	307	102.3
Total				4000		5104	4171	4094	102.35%

Diffuser Ret/Exh (GRD)

RTU2/FOOD SERVICE

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	FOOD SERVICE	G1	12"	660	1	312	612	612	92.7
EGRD2	FOOD SERVICE	G1	12"	660	1	655	670	670	101.5
EGRD3	FOOD SERVICE	G1	12"	660	1	680	659	659	99.8
EGRD4	FOOD SERVICE	G1	12"	660	1	702	668	668	101.2
EGRD5	FOOD SERVICE	G1	12"	660	1	987	697	697	105.6
Total				3300		3336	3306	3306	100.18%

National TAB

Project: 07-07-25 WAWA #8687 WILLIAMSBURG, VA

System/Unit: AHU/RTU

Asset: RTU3 AREA:RETAIL

Unit Data		
	Design	**Actual**
MFG	LENNOX ENLIGHT	LENNOX
Serial Num	-	5624F03067
Model Num	LGT072H4E	LGT072H4EB1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X14
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Frame	-	N/A
Horsepower	1.5	1.5
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	4.4
Service Factor	-	N/A

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	2473
SF RPM	-	2607
RA CFM	2050	2096
OA CFM	350	377
RL Voltage	-	208/211/210
RL Amperage	-	2.1/2.1/2.2
SF System SetPt	-	79%
RA Damper Position	-	95%
OA Damper Position	-	5%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.22”
Fan Suction SP	-	-0.65”
Fan Discharge SP	-	0.11”
Total ESP	.50"	0.33"
Fan Total SP	-	0.76"

Completed By: Ian Fuller on 07/09/2025

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Unit Data - PHOTO LOG

07/09/2025

National TAB

Project:07-07-25 WAWA #8687 WILLIAMSBURG, VA

AHU/RTU

Diffuser Supply (GRD)

RTU3/RETAIL

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	REAR VESTIBLE	CD3	6"	100	1	136	129	104	104.0
SGRD2	RETAIL	LD1	10"	300	1	356	339	320	106.7
SGRD3	RETAIL	LD1	10"	300	1	371	353	319	106.3
SGRD4	RETAIL	LD1	10"	350	1	329	313	380	108.6
SGRD5	RETAIL	CD1	8"	150	1	163	155	162	108.0
SGRD6	RETAIL	LD1	10"	300	1	317	302	280	93.3
SGRD7	RETAIL	LD1	10"	300	1	266	253	307	102.3
SGRD8	RETAIL	LD1	10"	350	1	308	293	361	103.1
SGRD9	WALK-IN	LD1	8"	150	1	168	160	140	93.3
SGRD10	VESTIBLE	CD2	10"	50	1	103	98	53	106.0
SGRD11	WOMENS RR	CD3	6"	50	1	57	54	47	94.0
Total				2400		2574	2449	2473	103.04%

Asset	Notes	Date	Written By
SGRD10	BROKEN DAMPER. UNABLE TO BALANCE DIFFUSER WITHIN DESIGN.	07/08/2025	Ian Fuller

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National TAB

Project: 07-07-25 WAWA #8687 WILLIAMSBURG, VA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	PENNBARRY	LOREN COOK
Model Num	DX08Q	90C10DH 90 ACEH
Serial Num	-	224SL42622-00/0000701
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	42Y
Horsepower	1/12	1/25
Motor Rpm	-	1050
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.1
Service Factor	-	N/A

Test Data		
	Design	**Actual**
CFM	300	255
Fan RPM	1550	1050
Fan Rotation	-	CCW
Motor RPM	-	1050
System SetPt	-	MAX
RL Voltage	-	120
RL Amperage	-	1.0
Total ESP	.13"	0.17"
Fan Inlet SP	-	-0.17"
Fan Discharge SP	-	ATM

Completed By: Ian Fuller on 07/09/2025

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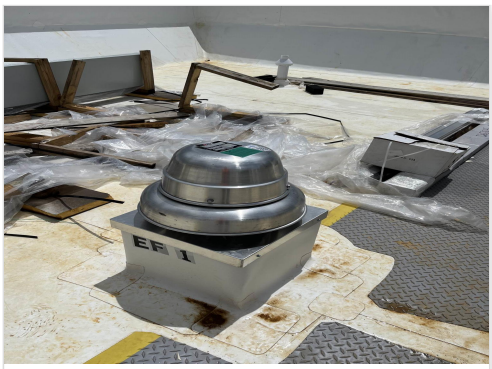
Unit Data - PHOTO LOG



07/09/2025

National TAB

Project:07-07-25 WAWA #8687 WILLIAMSBURG, VA

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	G3	6"	100	1	112	112	112	112.0
EGRD2	SUPPLY CLOSET	G1	8"	50	1	19	19	19	38.0
EGRD3	MENS RR	G3	6"	50	1	25	25	25	50.0
EGRD4	MENS RR	G3	6"	100	1	99	99	99	99.0
Total				300		255	255	255	85%

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National TAB

Project: 07-07-25 WAWA #8687 WILLIAMSBURG, VA

System/Unit: FAN - Exhaust

Asset: EF2 AREA:BACK OF HOUSE

Unit Data		
	Design	**Actual**
MFG	PENNBARRY	LOREN COOK
Model Num	DX13Q	120C13D 120 ACE
Serial Num	-	224SL42622-00/0002401
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Frame	-	48Y
Horsepower	1/4	1/4
Motor Rpm	-	1550
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.3
Service Factor	-	N/A

Test Data		
	Design	**Actual**
CFM	900	955
Fan Rotation	-	CCW
System SetPt	-	MEDIUM
RL Voltage	-	120
RL Amperage	-	1.9
Total ESP	.25"	0.27"
Fan Inlet SP	-	-0.27"
Fan Discharge SP	-	ATM

Completed By: Ian Fuller on 07/09/2025

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Unit Data - PHOTO LOG

07/09/2025

National TAB

Project:07-07-25 WAWA #8687 WILLIAMSBURG, VA

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF2/BACK OF HOUSE

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	STAGING	G1	6"	100	1	256	164	164	164.0
EGRD2	STAGING	G1	12"	500	1	582	399	399	79.8
EGRD3	FOOD SERVICE	G1	12"	300	1	554	392	392	130.7
Total				900		1392	955	955	106.11%

Asset	Notes	Date	Written By
EGRD1	NO DAMPERS ON DUCTWORK. UNABLE TO BALANCE INDIVIDUAL DIFFUSERS.	07/09/2025	Ian Fuller

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National TAB

Project: 07-07-25 WAWA #8687 WILLIAMSBURG, VA

System/Unit: FAN - Exhaust

Asset: EF3 AREA:TRASHROOM

Unit Data		
	Design	**Actual**
MFG	LENNOX ENLIGHT	LENNOX ENLIGHT
Model Num	Z3H	Z3H
Serial Num	-	N/A
Type	INLINE	INLINE
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	60	61

Completed By: Ian Fuller on 07/09/2025

Notes:
UNABLE TO REACH MOTOR, INSIDE OF WALL

Written By: Ian Fuller on 07/08/2025

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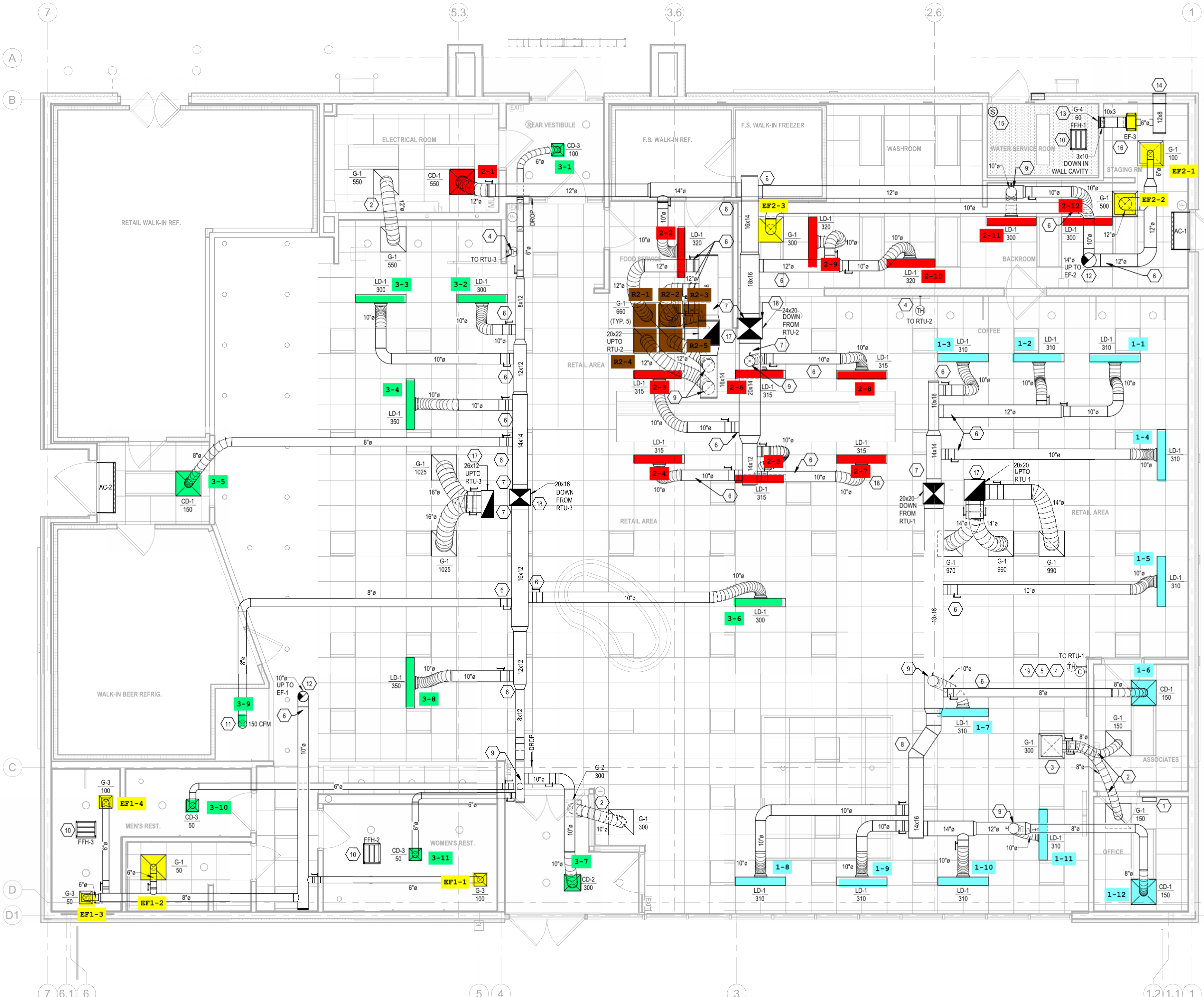
Unit Data - PHOTO LOG

07/09/2025



1 HVAC FLOOR PLAN
M1.0 1/4" = 1'-0"

KE

1. REM… STA… CON… SEC… TES… SHU… TO TEST THE SMOKE… MANAGER.
2. TRANSFER AIR DUCT…
3. PROVIDE SEALED 20… TO ALLOW FLEX TRA…
4. WALL MOUNTED SEN… SCHEDULE ON SHEE… CONTRACTOR SHAL…
5. WALL MOUNTED CO2… LEVELS THROUGH R…
6. ROUTE DUCT THROU… POINT.
7. DUCTWORK TO RUN… COORDINATE MECHA…
8. ROUTE DUCT THRU…
9. CONNECT TO BOTTO…
10. HEATER SHALL BE A…
11. ROUTE SUPPLY DUC… CAVITY ABOVE FREE… PENETRATION AIR T…
12. EXHAUST DUCT UP T… CONTINUATION.
13. MOUNT CENTER OF… DUCT SIZED AS SHO… THEN TO EXHAUST F… DUCT ROUTING WITH…
14. 12"X8" EXTERIOR WA… MANUFACTURED BY… RECOMMENDED INS… 1-1/2" FLANGE, AND…
15. EMERGENCY SHUTO… SYSTEM EMERGENC… ELECTRICAL AND AR…
16. INSTALL EXHAUST F… EMERGENCY SHUTO… ARCHITECTURAL AN…
17. RETURN DUCT PLEN…
18. SUPPLY DUCT PLEN…
19. COORDINATE INSTA… WITH DETAIL ON AR…

PERMITTIN…

ALL REFRIGERATION… REFRIGERATORS WIL…

SHEET GEN…

1. MECHANICAL CO… TO BE GENERALLY… TO AVOID AIRFLO… FOOD REFRIGER…

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Date: 1/14/2026