Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 01/12/2026

Completed By: National TAB

PROJECT

01-12-26 QT #1703 BUFORD GA

4624 FRIENDSHIP ROAD

BUFORD, GA

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 01-12-26 QT #1703 BUFORD GA

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Project Summary

Project Summary
The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report are further details 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)
Each of the RTU's was measured with a flow hood to establish total flow. The total flow was then adjusted via the VFD so that airflow fell within design tolerances. All diffusers on the kitchen RTU were balanced to the engineer's design flow. The diffusers on the sales floor were only adjusted when there were noticeable issues present like drafting or dampers that were found completely closed. The Hoods On outside air rate was set by first establishing the typical QT set point at the Emerson controller and then making manually adjustments on the roof. The hoods off airflow setpoint was found by adjusting the damper position at the Emerson controller until the design airflow was achieved. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. After completion of TAB all overrides were released.

Kitchen Exhaust Hood & Associated Fans
The kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow.

Restroom Exhaust Fans
The restroom exhaust fans were measured with a flow hood. The total flow was balanced for the fan with the exception of the new grille over the combi-oven, which was balanced to the listed design.

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. 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	HOOD ON OA		HOOD OFF OA		HOOD ON EXHAUST		HOOD OFF EXHAUST	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU 1	SALES	800	764	350	358				
RTU-2	SALES	800	812	350	371				
RTU-3	BOH/KITCHEN	800	791	350	364				
EF-1	RR/JANITOR					750	741	750	741
EF-3	HOOD					1350	1373	0	0
TOTALS		2400	2367	1050	1093	2100	2114	750	741

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2367
TOTAL EXHAUST	2100	2114
NET AIRFLOW	300	253

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0103
SIDE	0.0062
REAR	0.0028
AVERAGE	**0.0064**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1093
TOTAL EXHAUST	750	741
NET AIRFLOW	300	352

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0143
SIDE	0.0104
REAR	0.0024
AVERAGE	**0.009**

NOTES:

CheckList List

- 01: RTU’s/AHU’s
- 02: Exhaust Fans
- 03: Hoods
- 04: Final Tests

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CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/06/2025 - Trinity Dodds - National TAB		
Completed Date :	01/12/2026 - Sagar Patel - National TAB		

CheckList Item Details

RTU's/AHU's

Evaporator coils are clean?	Pass
Comment:	
Condenser coils are clean?	Pass
Comment:	
Gas piping is installed and valves are turned on?	Pass
Comment:	
Unit free of noticeable noise and vibration	Pass
Comment:	

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CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/06/2025 - Trinity Dodds - National TAB		
Completed Date :	01/12/2026 - Sagar Patel - National TAB		

CheckList Item Details

EF's

Hinge kit installed installed on hood fan?	Pass
Comment:	
Flex conduit is long enough so that fan can be completely tilted back?	Pass
Comment:	
No major leakage around the fan base	Pass
Comment:	
Unit is free of noise and vibration	Pass
Comment:	

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CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/06/2025 - Trinity Dodds - National TAB		
Completed Date :	01/12/2026 - Sagar Patel - National TAB		

CheckList Item Details

HOODS

Hood is free of alarms?	Pass
Comment:	
Hood is free of damage?	Pass
Comment:	
End panels are installed per prototype?	N/A
Comment:	

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CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/06/2025 - Trinity Dodds - National TAB		
Completed Date :	01/12/2026 - Sagar Patel - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

List smoke candle type used

Comment:

45 Second Smoke Emitter

Smoke test capture % - Perimeter of hood

Comment:

Smoke test capture % - Top of cooking surface

Comment:

WITNESS

Date test was completed 01/12/2026

Comment:

TAB tech name / Firm

Comment:

Sagar Patel / National TAB Intelligence

Site super name / Firm

Comment:

Not on Site

Owner representative name / Firm (if Applicable)

Comment:

N/A

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:

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Project: 01-12-26 QT #1703 BUFORD GA

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202212-ANEK26097
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	N/L
Frame	N/L
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4262
SF RPM	-	1291
OA CFM (Hoods On)	800	764
OA CFM (Hoods Off)	350	358
RL Voltage	-	145 VFD
RL Amperage	-	7.26 VFD
VFD Max SetPt	-	44 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.51”
Fan Suction SP	-	0.76”
Fan Discharge SP	-	-0.48”
Total ESP	-	1.27"
Fan Total SP	-	1.24"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 01/12/2026

Unit Data - PHOTO LOG

01/12/2026

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Project: 01-12-26 QT #1703 BUFORD GA

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202212-ANEK26098
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	N/L
Frame	N/L
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4314
SF RPM	-	1291
OA CFM (Hoods On)	800	812
OA CFM (Hoods Off)	350	371
RL Voltage	-	145 VFD
RL Amperage	-	7.32 VFD
VFD Max SetPt	-	42 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.43”
Fan Suction SP	-	-0.66”
Fan Discharge SP	-	0.42”
Total ESP	-	1.09"
Fan Total SP	-	1.08"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

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Unit Data - PHOTO LOG

01/12/2026

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Project: 01-12-26 QT #1703 BUFORD GA

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	202212-ANEK26099
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	N/L
Frame	N/L
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4117
SF RPM	-	1349
OA CFM (Hoods On)	800	791
OA CFM (Hoods Off)	350	364
RL Voltage	-	158 VFD
RL Amperage	-	7.84 VFD
VFD Max SetPt	-	46 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.61”
Fan Suction SP	-	-0.85”
Fan Discharge SP	-	0.51”
Total ESP	-	1.46"
Fan Total SP	-	1.36"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 01/12/2026

Unit Data - PHOTO LOG

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AHU/RTU

Diffuser Supply (GRD)

RT-3/BOH/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SUPPORT SERVICE	SI	12"	800	1	726	756	757	94.6
SGRD2	SUPPORT SERVICE	SI	12"	800	1	691	743	751	93.9
SGRD3	SUPPORT SERVICE	SI	12"	800	1	641	754	768	96.0
SGRD4	SUPPORT SERVICE	SI	12"	800	1	721	767	771	96.4
SGRD5	DOCK	ES	10"	500	1	636	577	563	112.6
SGRD6	WORKROOM	ES	8"	250	1	372	257	253	101.2
SGRD7	WORKROOM	ES	8"	250	1	336	263	254	101.6
Total				4200		4123	4117	4117	98.02%

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Project: 01-12-26 QT #1703 BUFORD GA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RESTROOM/JANITOR

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DR50HFA
Serial Num	-	5757779
Type	-	DOWNBLAST
Configuration	-	VERTICA;

Motor Data		
	Design	**Actual**
Motor MFG	-	HSSA
Frame	-	N/L
Horsepower	-	0.5
Motor Rpm	-	1625
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	5.6
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	750	741
Fan Rotation	-	CCW
System SetPt	-	LOW
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.36"
Fan Inlet SP	-	-0.36”
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 01/12/2026

Notes:
[1] UNABLE TO READ VOLTS AND AMPS SAFELY

Written By: Sagar Patel on 01/12/2026

Unit Data - PHOTO LOG

01/12/2026

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Project:01-12-26 QT #1703 BUFORD GA

Diffuser Ret/Exh (GRD)

EF1/RESTROOM/JANITOR

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD4	COMBI-OVEN	RI	8"	150	1	173	157	157	104.7
Total				150		173	157	157	104.67%

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Project: 01-12-26 QT #1703 BUFORD GA

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	7644846
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	HSSA
Frame	-	48
Horsepower	1/2	0.5
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3.6
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	1350	1373
Fan RPM	-	1213
Fan Rotation	-	CCW
Motor RPM	-	1213
System SetPt	-	52.8 Hz
RL Voltage	-	208
RL Amperage	-	1.7
Total ESP	-	0.37"
Fan Inlet SP	-	-0.37”
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG

01/12/2026

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Project: 01-12-26 QT #1703 BUFORD GA

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	7644846
Type	-	TYPE I CANOPY
Hood length	-	108"
Hood Width	-	60"

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	CAPTRATE SOLO FILTER
Filter Size 1	-	16X20
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	98
Filter2 FPM	-	118
Filter3 FPM	-	124
Filter4 FPM	-	113
Filter5 FPM	-	103
Filter6 FPM	-	105
CFM	1350	1373

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	OVEN

Completed By: Sagar Patel on 01/12/2026

Unit Data - PHOTO LOG

01/12/2026