

Report By:

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Report: TAB Report
Function: Test, Adjust, & Balance
Date: 03/04/2026
Completed By: National TAB

PROJECT

03-02-26 QT #0758 DOUGLASVILLE, GA

2786 CHAPEL HILL RD

DOUGLASVILLE, GA, GA

Client

QUIKTRIP
4705 SOUTH 129TH EAST AVENUE
TULSA, OK 74134

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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.

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	812	350	344				
RTU-2	SALES	800	784	350	358				
RTU-3	BOH/KITCHEN	800	805	350	351				
EF-1	RR/JANITOR					750	744	750	744
EF-3	HOOD					1350	1373	0	0
TOTALS		2400	2401	1050	1053	2100	2117	750	744

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2401
TOTAL EXHAUST	2100	2117
NET AIRFLOW	300	284

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0017
SIDE	0.0008
REAR	0.0053
AVERAGE	0.0026

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1053
TOTAL EXHAUST	750	744
NET AIRFLOW	300	309

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0046
SIDE	0.0033
REAR	0.0057
AVERAGE	0.0045

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 : 02/25/2026 - Trinity Dodds - National TAB
Completed Date : 03/04/2026 - 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? N/A

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 : 02/25/2026 - Trinity Dodds - National TAB
Completed Date : 03/04/2026 - 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 : 02/25/2026 - Trinity Dodds - National TAB
Completed Date : 03/04/2026 - 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 : 02/25/2026 - Trinity Dodds - National TAB

Completed Date : 03/04/2026 - Sagar Patel - National TAB

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

Fryer

List smoke candle type used

Comment:

45 Second Smoke Emitter

Smoke test capture % - Perimeter of hood

Comment:

95%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed

03/04/2026

Comment:

Video

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: 03-02-26 QT #0758 DOUGLASVILLE, GA

System/Unit: AHU/RTU

Asset: RT-1

AREA:SALES

Unit Data	
	Actual
MFG	AAON
Serial Num	201906-ANEK19102
Model Num	RN-013-8-0-EA09-152
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	4513
SF RPM	-	1179
OA CFM (Hoods On)	800	812
OA CFM (Hoods Off)	350	344
RL Voltage	-	125 VFD
RL Amperage	-	8.44 VFD
VFD Max SetPt	-	40.2 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.66"
Fan Suction SP	-0.85"
Fan Discharge SP	0.43"
Total ESP	1.09"
Fan Total SP	1.28"

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

Completed By: Sagar Patel on 03/04/2026

Unit Data - PHOTO LOG



03/04/2026



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Project: 03-02-26 QT #0758 DOUGLASVILLE, GA

System/Unit: AHU/RTU

Asset: RT-2

AREA:SALES

Unit Data	
	Actual
MFG	AAON
Serial Num	201906-ANEK19101
Model Num	RN-013-8-0-EA09-152
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	4373
SF RPM	-	1197
OA CFM (Hoods On)	800	784
OA CFM (Hoods Off)	350	358
RL Voltage	-	128 VFD
RL Amperage	-	8.13 VFD
VFD Max SetPt	-	40.8 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	27%

Performance Data	
	Actual
MA Plenum SP	-0.55"
Fan Suction SP	-0.68"
Fan Discharge SP	0.43"
Total ESP	0.98"
Fan Total SP	1.11"

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

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Unit Data - PHOTO LOG



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Project: 03-02-26 QT #0758 DOUGLASVILLE, GA

System/Unit: AHU/RTU

Asset: RT-3

AREA:BOH//KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201906-ANEK19100
Model Num	RN-013-8-0-EA09-152
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	4024
SF RPM	-	1179
OA CFM (Hoods On)	800	805
OA CFM (Hoods Off)	350	351
RL Voltage	-	125 VFD
RL Amperage	-	8.64 VFD
VFD Max SetPt	-	40.2 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	-	-0.67"
Fan Suction SP	-	-0.87"
Fan Discharge SP	-	0.58"
Total ESP	-	1.25"
Fan Total SP	-	1.45"

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

Completed By: Sagar Patel on 03/04/2026

Unit Data - PHOTO LOG



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Project:03-02-26 QT #0758 DOUGLASVILLE, GA

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	624	674	746	93.3
SGRD2	SUPPORT SERVICE	SI	12"	800	1	381	489	739	92.4
SGRD3	SUPPORT SERVICE	SI	12"	800	1	656	674	724	90.5
SGRD4	SUPPORT SERVICE	SI	12"	800	1	736	782	768	96.0
SGRD5	DOCK	ES	10"	500	1	602	608	521	104.2
SGRD6	WORKROOM	ES	8"	250	1	423	419	267	106.8
SGRD7	WORKROOM	ES	8"	250	1	366	387	259	103.6
Total				4200		3788	4033	4024	95.81%

Completed By: Sagar Patel on 03/04/2026



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Project: 03-02-26 QT #0758 DOUGLASVILLE, GA

System/Unit: FAN - Exhaust

Asset: EF-1

AREA:RESTROOMS/JANITOR

Unit Data	
	Actual
MFG	CAPTIVEAIRE
Model Num	DR50HFA
Serial Num	3882330
Type	DOWNBLAST
Configuration	VERTICAL

Motor Data	
	Actual
Motor MFG	MARATHON
Frame	48Y
Horsepower	0.75
Motor Rpm	1625
Phase	1
Voltage (rated)	115
Amperage (rated)	13
Service Factor	1.0

Test Data		
	Design	Actual
CFM	750	744
Fan Rotation	-	CCW
System SetPt	-	MEDIUM LOW
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.64"
Fan Inlet SP	-	-0.64"
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 03/04/2026

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

Written By: Sagar Patel on 03/04/2026

Unit Data - PHOTO LOG



03/04/2026



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Project:03-02-26 QT #0758 DOUGLASVILLE, GA

Diffuser Ret/Exh (GRD)

EF-1/RESTROOMS/JANITOR

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD4	SUPPORT SERVICE	EE	8"	150	1	22	141	141	94.0
Total				150		22	141	141	94%



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Project: 03-02-26 QT #0758 DOUGLASVILLE, GA

System/Unit: FAN - Exhaust

Asset: EF-3

AREA: KITCHEN HOOD

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8385033
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELECO GREEN
Frame	-	N/L
Horsepower	0.5	0.5
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	3.8
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	1350	1373
Fan RPM	-	1172
Fan Rotation	-	CCW
Motor RPM	-	1172
System SetPt	-	52.6 Hz (65% on MSC)
RL Voltage	-	213
RL Amperage	-	1.9
Total ESP	0.75"	0.38"
Fan Inlet SP	-	-0.38"
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 03/04/2026

Unit Data - PHOTO LOG



03/04/2026



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Project: 03-02-26 QT #0758 DOUGLASVILLE, GA

System/Unit: Kitchen Hood Type I

Asset: HD-1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	8385033
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	108"	108"
Hood Width	60"	60"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	20X16	20X16
Filter Qty 1	6	6
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	12.48	12.48
Filter1 FPM	-	101
Filter2 FPM	-	107
Filter3 FPM	-	113
Filter4 FPM	-	123
Filter5 FPM	-	116
Filter6 FPM	-	104
Filter Ave FPM(corr)	-	110
CFM	1350	1373

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	OVEN

Completed By: Sagar Patel on 03/04/2026

Unit Data - PHOTO LOG



03/04/2026

