Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 11/06/2025

Completed By: National TAB

PROJECT

01-05-26 QT #1115 GREENVILLE, SC

7840 WHITEHORSE RD

GREENVILLE, SC

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 01-05-26 QT #1115 GREENVILLE, SC

Table Of Contents

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.

Issue List

- Damper 3-6 Inaccessible
- EF-2 housing damage
- EF-2 Not Operational
- RTU-3 improper kitchen diffusers

01-05-26 QT #1115 GREENVILLE, SC

Project Issue Information

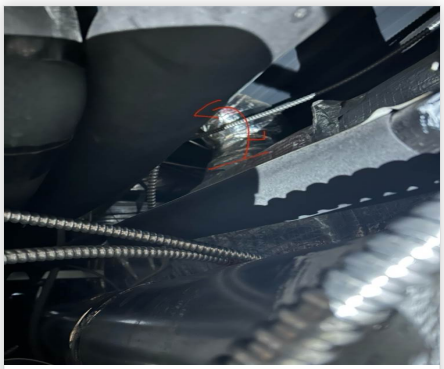
Issue Name : Damper 3-6 Inaccessible

Description : The damper for 3-6 is inaccessible. It is behind a wall in a spot that cannot be reached. Low flow on diffuser.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Low	**Asset Tag :**	SGRD6
Originated Date :	01/05/2026 - Alex Bauer - National TAB		

Project Issue File Details

01/06/2026



01/06/2026

01-05-26 QT #1115 GREENVILLE, SC

Project Issue Information

Issue Name : EF-2 housing damage
Description : EF-2 housing damaged.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Low	**Asset Tag :**	EF2
Originated Date :	01/05/2026 - Jearod Ferrette - National TAB		

Project Issue File Details

01/05/2026

01-05-26 QT #1115 GREENVILLE, SC

Project Issue Information

Issue Name : EF-2 Not Operational

Description : EF-2 has stopped operating after the test, adjust, and balance. The balance and building pressure tests were completed prior (on the second day) to the fan operation failing.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	High	**Asset Tag :**	EF2
Originated Date :	01/06/2026 - Alex Bauer - National TAB		

Project Issue File Details

01/06/2026

01-05-26 QT #1115 GREENVILLE, SC

Project Issue Information

Issue Name : RTU-3 improper kitchen diffusers
Description : RTU-3 kitchen diffusers are not the correct style.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Low	**Asset Tag :**	RT-3
Originated Date :	01/05/2026 - Jearod Ferrette - National TAB		

Project Issue File Details

01/05/2026

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	751	350	319				
RTU-2	SALES	800	848	350	362				
RTU-3	BOH/KITCHEN	800	834	350	355				
EF-1	WOMEN'S RR					225	219	225	219
EF-2	MEN'S RR					525	530	525	530
EF-3	HOOD					1350	1435	0	0
TOTALS		2400	2433	1050	1036	2100	2184	750	749

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2433
TOTAL EXHAUST	2100	2184
NET AIRFLOW	300	249

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0008
SIDE	0.0007
REAR	0.0063
AVERAGE	**0.0026**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1036
TOTAL EXHAUST	750	749
NET AIRFLOW	300	287

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0045
SIDE	0.0068
REAR	0.022
AVERAGE	**0.0111**

NOTES:

CheckList List

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

01-05-26 QT #1115 GREENVILLE, SC

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 :	01/06/2026 - Alex Bauer - 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:	

01-05-26 QT #1115 GREENVILLE, SC

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 :	01/06/2026 - Alex Bauer - 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:	

01-05-26 QT #1115 GREENVILLE, SC

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 :	01/06/2026 - Alex Bauer - 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:	

01-05-26 QT #1115 GREENVILLE, SC

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 :	01/06/2026 - Alex Bauer - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

FRYER, OVEN

List smoke candle type used

Comment:

SMOKE CANDLE

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	01/06/2026

Comment:

TAB tech name / Firm

Comment:

ALEX BAUER/NTAB

Site super name / Firm

Comment:

NA

Owner representative name / Firm (if Applicable)

Comment:

NA

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:

National TAB

Project: 01-05-26 QT #1115 GREENVILLE, SC

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201111ANEK05829
Model Num	RN01380EA0A152
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5

Motor Data	
	Actual
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor Rpm	NA
Phase	3
Rated Voltage	208
Rated Amperage	NA

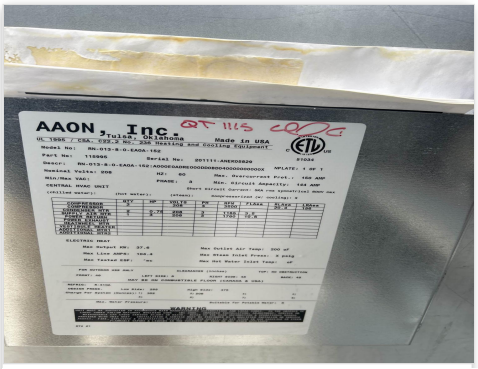
Test Data		
	Design	**Actual**
SF CFM	4200	4091
SF RPM	-	1261
OA CFM (Hoods On)	800	751
OA CFM (Hoods Off)	350	319
RL Voltage	-	142 VFD
RL Amperage	-	8.76 VFD
VFD Max SetPt	-	43 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	30%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.74”
Fan Suction SP	-	-0.92”
Fan Discharge SP	-	0.16”
Total ESP	-	0.90”
Fan Total SP	-	1.08”

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

Completed By: Alex Bauer on 01/06/2026

Unit Data - PHOTO LOG



01/05/2026

01/05/2026

National TAB

Project: 01-05-26 QT #1115 GREENVILLE, SC

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201111ANEK05830
Model Num	RN01380EA0A152
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5

Motor Data	
	Actual
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor Rpm	NA
Phase	3
Rated Voltage	208
Rated Amperage	NA

Test Data		
	Design	**Actual**
SF CFM	4200	3867
SF RPM	-	1125
OA CFM (Hoods On)	800	848
OA CFM (Hoods Off)	350	362
RL Voltage	-	113 VFD
RL Amperage	-	7.88 VFD
VFD Max SetPt	-	38.4 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	36%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.56”
Fan Suction SP	-	-0.73”
Fan Discharge SP	-	0.34”
Total ESP	-	0.90”
Fan Total SP	-	1.07”

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

Completed By: Alex Bauer on 01/06/2026

Unit Data - PHOTO LOG

01/05/2026

01/05/2026

National TAB

Project: 01-05-26 QT #1115 GREENVILLE, SC

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201111ANEK05831
Model Num	RN01380EA0A152
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5

Motor Data	
	Actual
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor Rpm	NA
Phase	3
Rated Voltage	208
Rated Amperage	NA

Test Data		
	Design	**Actual**
SF CFM	4200	3792
SF RPM	-	1291
OA CFM (Hoods On)	800	834
OA CFM (Hoods Off)	350	355
RL Voltage	-	149 VFD
RL Amperage	-	9.30 VFD
VFD Max SetPt	-	43 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	40%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.71”
Fan Suction SP	-	-0.92”
Fan Discharge SP	-	0.49”
Total ESP	-	1.20”
Fan Total SP	-	1.41”

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

Completed By: Alex Bauer on 01/06/2026

Notes:
Damper 3-6 inaccessible.

Written By: Alex Bauer on 01/05/2026

Unit Data - PHOTO LOG

01/05/2026

01/05/2026

National TAB

Project:01-05-26 QT #1115 GREENVILLE, SC

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	827	768	722	90.3
SGRD2	SUPPORT SERVICE	SI	12"	800	1	1040	864	816	102.0
SGRD3	SUPPORT SERVICE	SI	12"	800	1	658	674	763	95.4
SGRD4	SUPPORT SERVICE	SI	12"	800	1	794	857	801	100.1
SGRD5	DOCK	ES	12"	750	1	649	461	599	79.9
SGRD6	WORKROOM	ES	8"	250	1	67	85	91	36.4
Total				4200		4035	3709	3792	90.29%

National TAB

Project: 01-05-26 QT #1115 GREENVILLE, SC

System/Unit: FAN - Exhaust

Asset: EF1 AREA:WOMEN'S RR

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	90 ACEH
Serial Num	-	418SD83622
Type	-	UPBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	FDW
Frame	-	48Y
Horsepower	-	1/8
Motor Rpm	-	1600
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.7
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	225	219
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MAX ON DAIL
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	0.21"
Fan Inlet SP	-	-0.21"
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 01/05/2026

Unit Data - PHOTO LOG

01/05/2026

National TAB

Project: 01-05-26 QT #1115 GREENVILLE, SC

System/Unit: FAN - Exhaust

Asset: EF2 AREA:MEN'S RR/COMBI

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	120 ACE
Serial Num	-	418SD83623
Type	-	UPBLAST
Configuration	-	VERTICAL

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

Test Data		
	Design	**Actual**
CFM	525	530
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MAX ON DAIL
RL Voltage	-	115
RL Amperage	-	2.36
Total ESP	-	0.18"
Fan Inlet SP	-	-0.18"
Fan Discharge SP	-	ATMO

Completed By: Alex Bauer on 01/06/2026

Unit Data - PHOTO LOG

01/05/2026

National TAB

Project:01-05-26 QT #1115 GREENVILLE, SC

Diffuser Ret/Exh (GRD)

EF2/MEN'S RR/COMBI

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	COMBI-OVEN	RI	8"	150	1	174		174	116.0
Total				150		174	0	174	116%

National TAB

Project: 01-05-26 QT #1115 GREENVILLE, SC

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	7644856
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	HSSA
Frame	-	48
Horsepower	1/2	1/2
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	6.2
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	1350	1435
Fan RPM	-	1582
Fan Rotation	-	CCW
Motor RPM	-	1582
System SetPt	-	68.8 Hz
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	0.37”
Fan Inlet SP	-	-0.37”
Fan Discharge SP	-	ATMO

Completed By: Alex Bauer on 01/06/2026

Unit Data - PHOTO LOG

01/05/2026

National TAB

Project: 01-05-26 QT #1115 GREENVILLE, SC

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

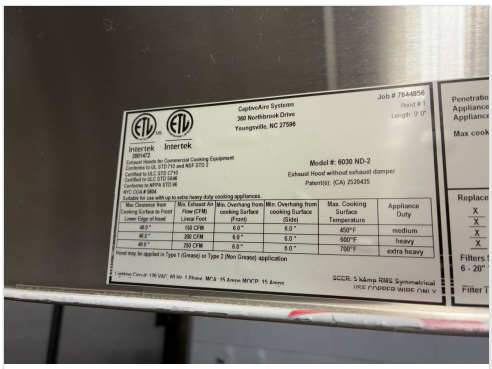
Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	7644856
Type	-	TYPE I CANOPY
Hood length	-	121
Hood Width	-	60

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	CAPTRATE
Filter Size 1	-	16X20
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	109
Filter2 FPM	-	120
Filter3 FPM	-	125
Filter4 FPM	-	122
Filter5 FPM	-	105
Filter6 FPM	-	112
Filter Ave FPM(corr)	-	115
CFM	1350	1435

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	OVEN

Completed By: Alex Bauer on 01/06/2026

Unit Data - PHOTO LOG



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01/05/2026

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