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 #1412 PHOENIX, AZ

1133 E NORTHERN AVE

PHOENIX, AZ 85020

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 01-12-26 QT #1412 PHOENIX, AZ

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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.

Issue List

- BACK AREA NOT BEING CONDITIONED
- DIRTY FILTERS
- EF3 HINGE/GREASE CUP INCORRECT INSTALLATION
- HOOD DAMAGED ON OVEN SIDE - 5% LOSS
- REQUIRED DAMPERS INACCESSIBLE

01-12-26 QT #1412 PHOENIX, AZ

Project Issue Information

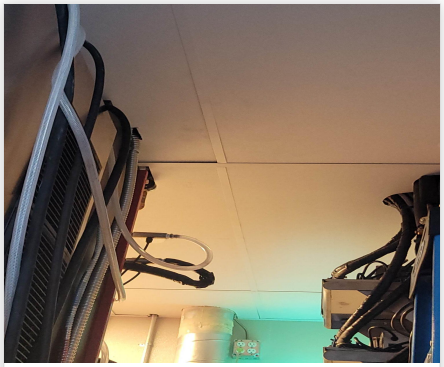
Issue Name : BACK AREA NOT BEING CONDITIONED

Description : Duct which should supply damp, humid area behind soda & ice machines is instead atop the ceiling. Problems such as pictured worsen with inadequate air conditioning. Recommend replacing conditioning for the area.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Medium	**Asset Tag :**	SGRD5
Originated Date :	01/13/2026 - Christine Weale - National TAB		

Project Issue File Details

01/13/2026



01/13/2026

01-12-26 QT #1412 PHOENIX, AZ

Project Issue Information

Issue Name : DIRTY FILTERS
Description : Filters on all units are dirty, more so than picture shows.

Created By : National TAB
Assigned To : National TAB - Dan Hertenstein

Status : Open
Priority : InfoOnly
Asset Tag :
Originated Date : 01/16/2026 - Christine Weale - National TAB

Project Issue File Details

01/16/2026

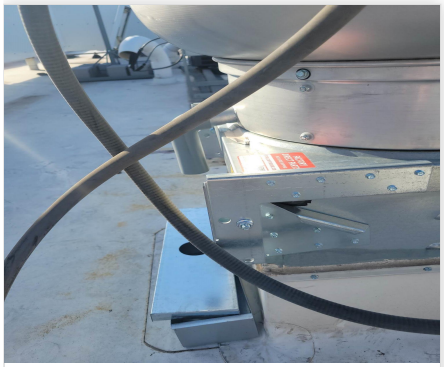
01-12-26 QT #1412 PHOENIX, AZ

Project Issue Information

Issue Name : EF3 HINGE/GREASE CUP INCORRECT INSTALLATION
Description : Hinge should be installed opposite of the grease conduit/cup.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Low	**Asset Tag :**	EF3
Originated Date :	01/13/2026 - Christine Weale - National TAB		

Project Issue File Details



01/13/2026

01-12-26 QT #1412 PHOENIX, AZ

Project Issue Information

Issue Name : HOOD DAMAGED ON OVEN SIDE - 5% LOSS

Description : Large dent on right side of hood has caused right panel to be slightly angled (~174* i/o 180*). This also happens to be the same side ~5% smoke loss occurs. Smoke originates from oven surface. Not sure if there is a correlation.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Medium	**Asset Tag :**	HD1
Originated Date :	01/13/2026 - Christine Weale - National TAB		

Project Issue File Details

01/13/2026

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01-12-26 QT #1412 PHOENIX, AZ

Project Issue Information

Issue Name :	REQUIRED DAMPERS INACCESSIBLE		
Description :	Only the end damper, SGRD4, was accessible, and was completely open. Recommend installing dampers where tiles can be removed, moving light canister placement, or installing grille-facing dampers instead.		
Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	High	**Asset Tag :**	RT-3
Originated Date :	01/16/2026 - Christine Weale - National TAB		

CheckList List

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

01-12-26 QT #1412 PHOENIX, AZ

CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/02/2025 - Trinity Dodds - National TAB		
Completed Date :	01/13/2026 - Christine Weale - 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:	

01-12-26 QT #1412 PHOENIX, AZ

CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/02/2025 - Trinity Dodds - National TAB		
Completed Date :	01/13/2026 - Christine Weale - National TAB		

CheckList Item Details

EF's

Hinge kit installed installed on hood fan?	Pass
Comment: Yes, but it's backwards, installed on same side as grease cup/conduit.	
Flex conduit is long enough so that fan can be completely tilted back?	
Comment:	
No major leakage around the fan base	Pass
Comment:	
Unit is free of noise and vibration	Pass
Comment:	

01-12-26 QT #1412 PHOENIX, AZ

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/02/2025 - Trinity Dodds - National TAB		
Completed Date :	01/13/2026 - Christine Weale - National TAB		

CheckList Item Details

HOODS

Hood is free of alarms?	Pass
Comment:	
Hood is free of damage?	Fail
Comment:	
See 'REMARKS'	
End panels are installed per prototype?	Pass
Comment:	

01-12-26 QT #1412 PHOENIX, AZ

CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/02/2025 - Trinity Dodds - National TAB		
Completed Date :	01/16/2026 - Christine Weale - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

All equipment on, but not in use.

List smoke candle type used

Comment:

45s, S102

Smoke test capture % - Perimeter of hood

Comment:

100

Smoke test capture % - Top of cooking surface

Comment:

95 - oven loss, see 'REMARKS'.

WITNESS

Date test was completed	01/12/2026

Comment:

TAB tech name / Firm

Comment:

Christine Weale, NTI

Site super name / Firm

Comment:

T-Built

Owner representative name / Firm (if Applicable)

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:

Building pressure average 0.003" with Hood

National TAB

Project: 01-12-26 QT #1412 PHOENIX, AZ

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202010-ANEK21262
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22
Num Final Filter 1	2
Final Filter Size 1	46X19.5

Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	3.0
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4599
SF RPM	-	45.0 HZ
OA CFM (Hoods On)	800	853
OA CFM (Hoods Off)	350	371
RL Voltage	-	150.6
RL Amperage	-	7.23
VFD Max SetPt	-	75.0
VFD Min SetPt	-	24.0
OA Damper Position (Hoods On)	-	46.0
OA Damper Position (Hoods Off)	-	0.0

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.47"
Fan Suction SP	-	-0.72"
Fan Discharge SP	-	0.24"
Total ESP	-	0.71"
Fan Total SP	-	0.96"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	NO
Condensate Drain Installed	YES

Completed By: Christine Weale on 01/15/2026

Unit Data - PHOTO LOG

01/15/2026

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National TAB

Project: 01-12-26 QT #1412 PHOENIX, AZ

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202010-ANEK21263
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22
Num Final Filter 1	2
Final Filter Size 1	46X19.5

Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	3.0
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4271
SF RPM	-	45.0 HZ
OA CFM (Hoods On)	800	843
OA CFM (Hoods Off)	350	364
RL Voltage	-	150.8
RL Amperage	-	7.37
VFD Max SetPt	-	75.0
VFD Min SetPt	-	24.0
OA Damper Position (Hoods On)	-	46.0
OA Damper Position (Hoods Off)	-	0.0

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.44"
Fan Suction SP	-	-0.68"
Fan Discharge SP	-	0.36"
Total ESP	-	1.12"
Fan Total SP	-	1.04"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	NO
Condensate Drain Installed	YES

Completed By: Christine Weale on 01/15/2026

Unit Data - PHOTO LOG

01/15/2026

01/15/2026

National TAB

Project: 01-12-26 QT #1412 PHOENIX, AZ

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	202010-ANEK21261
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22
Num Final Filter 1	2
Final Filter Size 1	46X19.5

Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	3.0
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4099
SF RPM	-	49.8 HZ
OA CFM (Hoods On)	800	866
OA CFM (Hoods Off)	350	367
RL Voltage	-	181.8
RL Amperage	-	8.74
VFD Max SetPt	-	83.0
VFD Min SetPt	-	24.0
OA Damper Position (Hoods On)	-	46.0
OA Damper Position (Hoods Off)	-	0.0

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.72"
Fan Suction SP	-	-0.98"
Fan Discharge SP	-	0.52"
Total ESP	-	1.24"
Fan Total SP	-	1.50"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	NO
Condensate Drain Installed	YES

Completed By: Christine Weale on 01/15/2026

Notes:
UNIT LEFT ON LOW-SIDE SO KITCHEN AIR FLOW WOULD NOT BE TOO HIGH. REQUIRED DAMPERS INACCESSIBLE.

Written By: Christine Weale on 01/15/2026

Unit Data - PHOTO LOG

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Project:01-12-26 QT #1412 PHOENIX, AZ

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	959	959	959	119.9
SGRD2	SUPPORT SERVICE	SI	12"	800	1	901	901	901	112.6
SGRD3	SUPPORT SERVICE	SI	12"	800	1	569	569	569	71.1
SGRD4	SUPPORT SERVICE	SI	12"	800	1	855	855	855	106.9
SGRD5	WORKROOM	ES	10"	500	1	535	535	535	107.0
SGRD6	WORKROOM	ES	10"	500	1	280	280	280	56.0
Total				4200		4099	4099	4099	97.6%

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Project: 01-12-26 QT #1412 PHOENIX, AZ

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RR/JANITOR

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DR50HFA
Serial Num	-	4603547
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	HSSA
Frame	-	48Y
Horsepower	-	0.75
Motor Rpm	-	1625
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	8.4
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	600	654
Fan RPM	-	N/A
Fan Rotation	-	CCW
Motor RPM	-	N/A
System SetPt	-	LOW-MED
RL Voltage	-	69.1
RL Amperage	-	7.36
Total ESP	-	0.16"
Fan Inlet SP	-	-0.16"
Fan Discharge SP	-	ATMS

Completed By: Christine Weale on 01/15/2026

National TAB

Project: 01-12-26 QT #1412 PHOENIX, AZ

System/Unit: FAN - Exhaust

Asset: EF4 AREA:COMBI-OVEN

Unit Data	
	Actual
MFG	N/A
Model Num	N/A
Serial Num	N/A

Test Data		
	Design	**Actual**
CFM	150	175
RL Voltage	-	N/A
RL Amperage	-	N/A

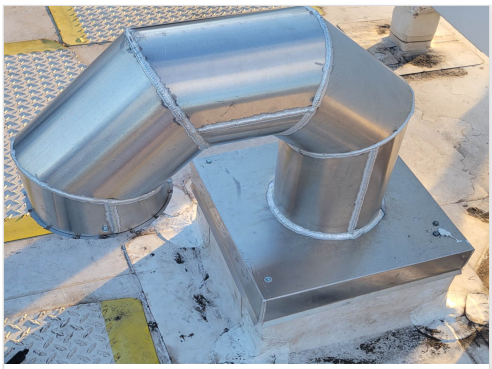
Motor Data		
	Design	**Actual**
Motor MFG	-	N/A
Horsepower	-	N/A
Motor Rpm	-	N/A
Phase	-	N/A
Voltage (rated)	-	N/A
Amperage (rated)	-	N/A

Completed By: Christine Weale on 01/15/2026

Notes:
DETAILS NOT GIVEN, MOTOR INACCESSIBLE.

Written By: Christine Weale on 01/12/2026

Unit Data - PHOTO LOG



01/15/2026

National TAB

Project: 01-12-26 QT #1412 PHOENIX, AZ

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8257605
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NEMA
Frame	-	NL
Horsepower	1/2	0.5
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	3.8
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	1350	1410
Fan RPM	-	1186
Fan Rotation	-	CCW
Motor RPM	-	1186
System SetPt	-	50.8 HZ - 63%
RL Voltage	-	215.6
RL Amperage	-	N/A
Total ESP	-	0.51"
Fan Inlet SP	-	-0.51"
Fan Discharge SP	-	ATMS

Completed By: Christine Weale on 01/15/2026

Unit Data - PHOTO LOG

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National TAB

Project: 01-12-26 QT #1412 PHOENIX, AZ

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

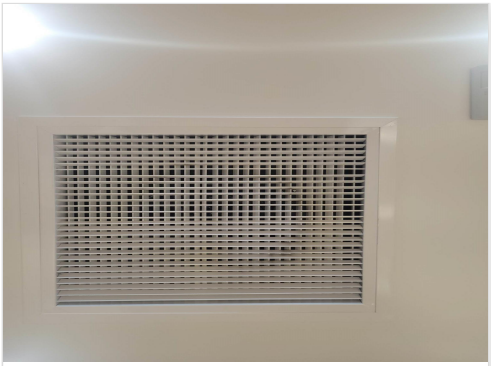
Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	8257605
Type	-	TYPE I CANOPY
Hood length	-	108"
Hood Width	-	60"

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	CAPTRATE SOLO
Filter Size 1	-	16X20
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	111
Filter2 FPM	-	122
Filter3 FPM	-	109
Filter4 FPM	-	113
Filter5 FPM	-	110
Filter6 FPM	-	113
Filter Ave FPM(corr)	-	113
CFM	1350	1410

Cooking Equipment	
	Actual
Item 1	FRYERS
Item 2	DUAL-OVEN

Completed By: Christine Weale on 01/15/2026

Unit Data - PHOTO LOG



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