Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 02/12/2026

Completed By: National TAB

PROJECT

02-23-26 QT #1045 GASTONIA, NC

310 E LONG AVE

GASTONIA, NC

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 02-23-26 QT #1045 GASTONIA, NC

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

- EF-2 not operational
- RTU 3 ductwork severely pinched
- Specified diffusers not installed

02-23-26 QT #1045 GASTONIA, NC

Project Issue Information

Issue Name : EF-2 not operational

Description : EF -2 not operational. It appears to be an electrical short.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Urgent	**Asset Tag :**	EF2
Originated Date :	02/25/2026 - Jearod Ferrette - National TAB		

Project Issue File Details

02/25/2026

02/25/2026

02/25/2026

02-23-26 QT #1045 GASTONIA, NC

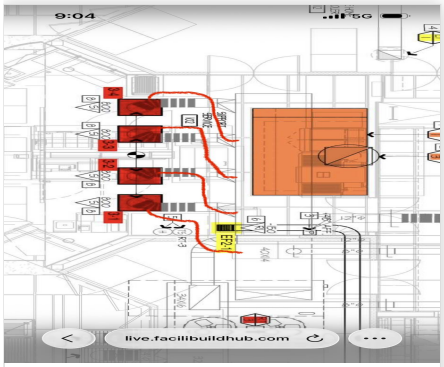
Project Issue Information

Issue Name : RTU 3 ductwork severely pinched

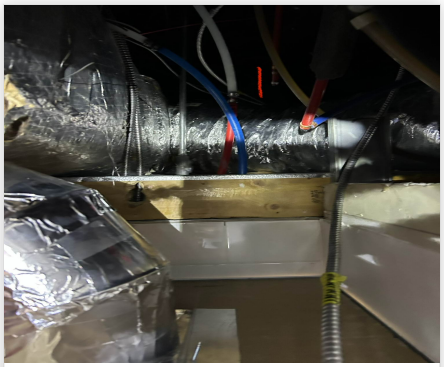
Description : RTU 3 first 4 kitchen diffusers are severely pinched. Ductwork doesn't match drawings. First diffuser takeoff is above hard ceiling, and all of the ductwork are table topped on each other. The unit is currently at 43hz at 69% of design. All the air is being pushed to SGRD 3-5/ 3-6 in the BOH.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Urgent	**Asset Tag :**	RT-3
Originated Date :	02/25/2026 - Jearod Ferrette - National TAB		

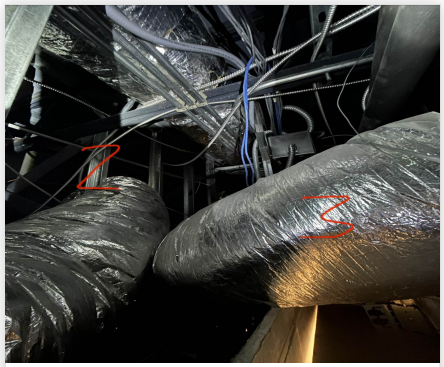
Project Issue File Details



02/25/2026



02/25/2026



02/25/2026

Project Issue Response Details

- **02/25/2026 National TAB - Jearod Ferrette**
  - .

02/25/2026

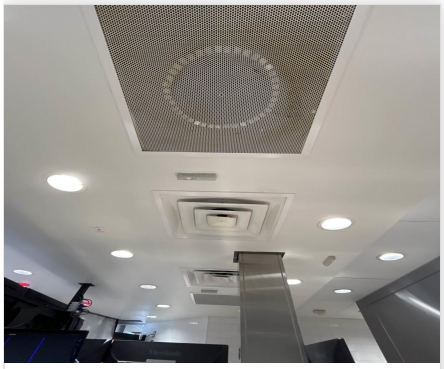
02-23-26 QT #1045 GASTONIA, NC

Project Issue Information

Issue Name : Specified diffusers not installed
Description : SGRD 3-1 to 3-4 diffusers are not per design.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Medium	**Asset Tag :**	RT-3
Originated Date :	02/25/2026 - Jearod Ferrette - National TAB		

Project Issue File Details



02/25/2026

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	876	350	375				
RTU-2	SALES	800	869	350	375				
RTU-3	BOH/KITCHEN	800	834	350	361				
EF-1	WOMEN'S RR					225	226	225	226
EF-2	MEN'S RR					525	0	525	0
EF-3	HOOD					1350	1397	0	0
TOTALS		2400	2579	1050	1111	2100	1623	750	226

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2579
TOTAL EXHAUST	2100	1623
NET AIRFLOW	300	956

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.017
SIDE	0.011
REAR	0.012
AVERAGE	**0.0133**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1111
TOTAL EXHAUST	750	226
NET AIRFLOW	300	885

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.015
SIDE	0.014
REAR	0.017
AVERAGE	**0.0153**

NOTES:

WINDY ON THE ROOF AND BY THE DOORS

CheckList List

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

02-23-26 QT #1045 GASTONIA, NC

CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/03/2026 - Trinity Dodds - National TAB		
Completed Date :	02/25/2026 - Jearod Ferrette - 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:	

02-23-26 QT #1045 GASTONIA, NC

CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/03/2026 - Trinity Dodds - National TAB		
Completed Date :	02/25/2026 - Jearod Ferrette - 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	Fail
Comment: EF -2 NOT OPERATIONAL	

Notes/Comments :

EF -2 NOT OPERATIONAL

Date :02/25/2026

02-23-26 QT #1045 GASTONIA, NC

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/03/2026 - Trinity Dodds - National TAB		
Completed Date :	02/25/2026 - Jearod Ferrette - 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?	Pass
Comment:	

02-23-26 QT #1045 GASTONIA, NC

CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/03/2026 - Trinity Dodds - National TAB		
Completed Date :	02/25/2026 - Jearod Ferrette - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

FRYER, PIZZA OVEN

List smoke candle type used

Comment:

STAFF CURRENTLY TRAINING IN THE COOK. SMOKE CAPTURE 100%

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	02/25/2026

Comment:

TAB tech name / Firm

Comment:

JEAROD FERRETTE/ 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:

FRONT 0.017, SIDE 0.011, REAR 0.012

Notes/Comments :

HIGH WINDS ON ROOF AND STORE FRONT.

Date :02/25/2026

National TAB

Project: 02-23-26 QT #1045 GASTONIA, NC

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201304-ANEK08178
Model Num	RN-013-8-0-EA0A
Num OA Filters 1	1
OA Filter Size 1	22.5X44.5
Num Final Filter 1	2
Final Filter Size 1	56X45

Motor Data	
	Actual
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4171
SF RPM	-	DD/ 33.6
OA CFM (Hoods On)	800	876
OA CFM (Hoods Off)	350	361
RL Voltage	-	80.6 VFD
RL Amperage	-	7.6 VFD
VFD Max SetPt	-	33.6
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.31"
Fan Suction SP	-0.46"
Fan Discharge SP	0.47"
Total ESP	0.78"
Fan Total SP	0.93"

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

Completed By: Jearod Ferrette on 02/25/2026

Unit Data - PHOTO LOG

02/25/2026

02/25/2026

National TAB

Project: 02-23-26 QT #1045 GASTONIA, NC

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201304-ANEK08177
Model Num	RN-013-8-0-EA0A
Num OA Filters 1	1
OA Filter Size 1	22.5X44.5
Num Final Filter 1	2
Final Filter Size 1	56X45

Motor Data	
	Actual
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4405
SF RPM	-	DD/ 43 HZ
OA CFM (Hoods On)	800	869
OA CFM (Hoods Off)	350	375
RL Voltage	-	134.2 VFD
RL Amperage	-	9.3 VFD
VFD Max SetPt	-	43 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.97"
Fan Suction SP	-1.16"
Fan Discharge SP	0.43"
Total ESP	1.40"
Fan Total SP	1.59"

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

Completed By: Jearod Ferrette on 02/25/2026

Unit Data - PHOTO LOG

02/25/2026

02/25/2026

National TAB

Project: 02-23-26 QT #1045 GASTONIA, NC

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201304-ANEK08176
Model Num	RN-013-8-0-EA0A
Num OA Filters 1	1
OA Filter Size 1	22.5X44.5
Num Final Filter 1	2
Final Filter Size 1	56X45

Motor Data	
	Actual
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

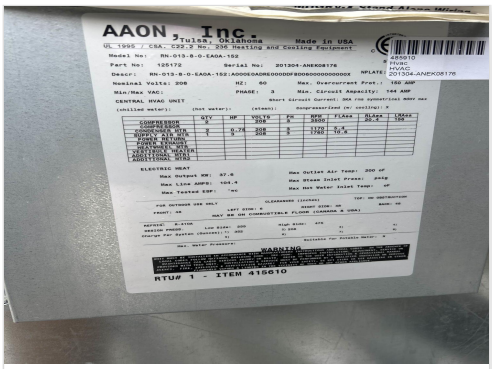
Test Data		
	Design	**Actual**
SF CFM	4200	2907
SF RPM	-	DD/ 43 HZ
OA CFM (Hoods On)	800	834
OA CFM (Hoods Off)	350	375
RL Voltage	-	131.3 VFD
RL Amperage	-	9.7 VFD
VFD Max SetPt	-	43 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.42"
Fan Suction SP	-0.58"
Fan Discharge SP	1.31"
Total ESP	1.73"
Fan Total SP	1.89"

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

Completed By: Jearod Ferrette on 02/25/2026

Unit Data - PHOTO LOG



02/25/2026

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National TAB

Project:02-23-26 QT #1045 GASTONIA, NC

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	28		28	3.5
SGRD2	SUPPORT SERVICE	SI	12"	800	1	163		163	20.4
SGRD3	SUPPORT SERVICE	SI	12"	800	1	124		124	15.5
SGRD4	SUPPORT SERVICE	SI	12"	800	1	405		405	50.6
SGRD5	DOCK	ES	12"	750	1	1551		1551	206.8
SGRD6	WORKROOM	ES	8"	250	1	636		636	254.4
Total				4200		2907	0	2907	69.21%

National TAB

Project: 02-23-26 QT #1045 GASTONIA, NC

System/Unit: FAN - Exhaust

Asset: EF1 AREA:WOMEN'S RR

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	120 ACEH	90 ACEH
Serial Num	-	410SE49284
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data	
	Actual
Motor MFG	FASCO
Horsepower	1/8
Motor Rpm	1600
Phase	1
Voltage (rated)	115
Amperage (rated)	1.7
Service Factor	1

Test Data		
	Design	**Actual**
CFM	225	226
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MAX
Total ESP	-	0.16”
Fan Inlet SP	-	-0.16”
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 02/25/2026

Unit Data - PHOTO LOG

02/25/2026

National TAB

Project: 02-23-26 QT #1045 GASTONIA, NC

System/Unit: FAN - Exhaust

Asset: EF2 AREA:MEN'S RR/COMBI

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	120 ACEH	120 ACE
Serial Num	-	410SE58676
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Test Data		
	Design	**Actual**
CFM	525	0
Fan Discharge SP	-	ATMO

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

Completed By: Jearod Ferrette on 02/25/2026

Notes:
Not operational

Written By: Jearod Ferrette on 02/25/2026

Unit Data - PHOTO LOG

02/25/2026

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					-
Total				150		0	0	0	0%

National TAB

Project: 02-23-26 QT #1045 GASTONIA, NC

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	COOK	CAPTIVEAIRE
Model Num	120 ACEH	DU50HFA
Serial Num	-	8428201
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Horsepower	1/2	1/2
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	208
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	1350	1397
Fan RPM	-	1147
Fan Rotation	-	CCW
Motor RPM	-	1147
System SetPt	-	50.8 HZ
Total ESP	-	0.25”
Fan Inlet SP	-	-0.25”
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 02/25/2026

Unit Data - PHOTO LOG

02/25/2026

02/25/2026

National TAB

Project: 02-23-26 QT #1045 GASTONIA, NC

System/Unit: Kitchen Hood Type I

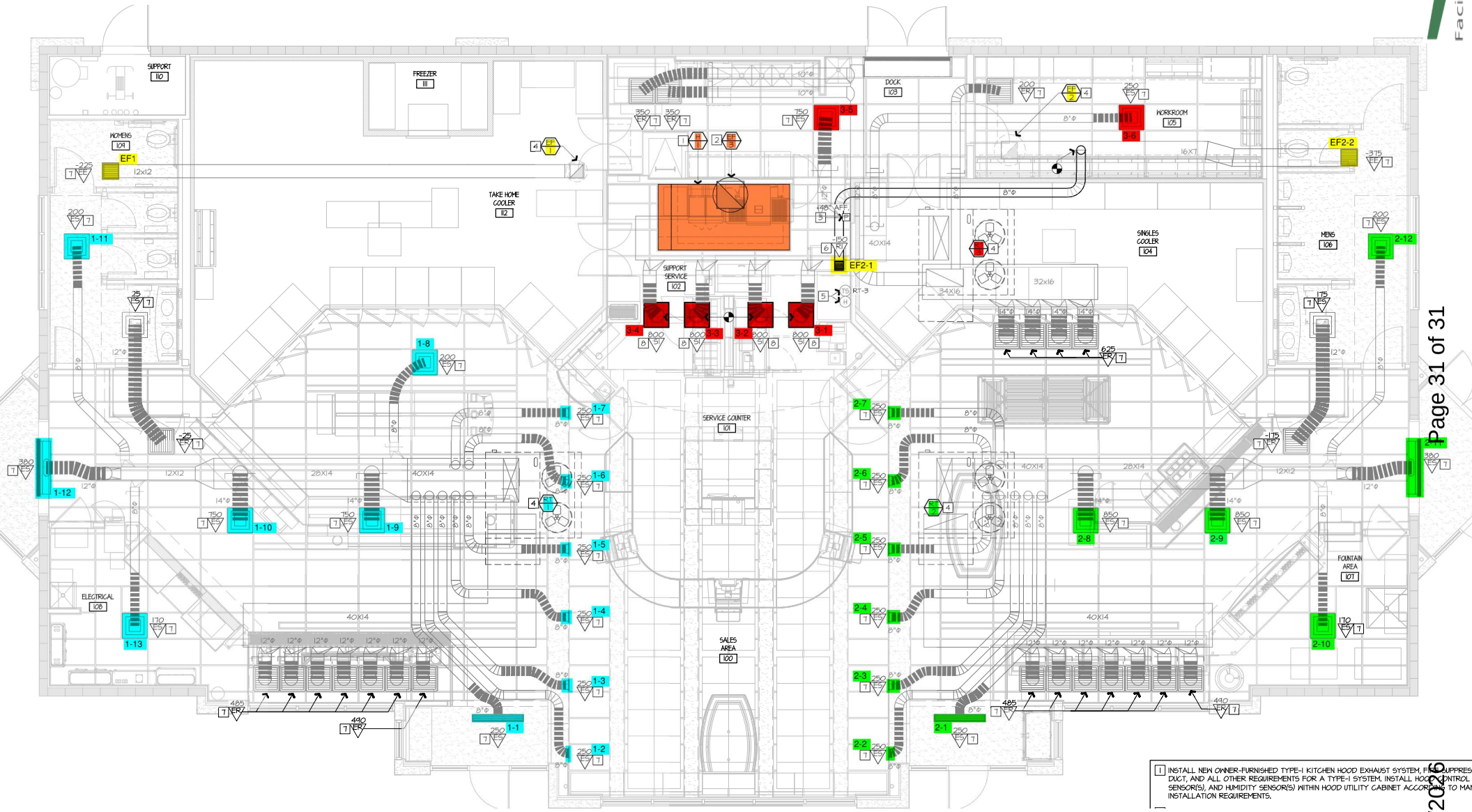
Asset: HD1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	8428201
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	-	110
Filter2 FPM	-	115
Filter3 FPM	-	127
Filter4 FPM	-	113
Filter5 FPM	-	103
Filter6 FPM	-	106
Filter Ave FPM(corr)	-	112
CFM	1350	1397

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	PIZZA OVEN

Completed By: Jearod Ferrette on 02/25/2026



1 INSTALL NEW OWNER-FURNISHED TYPE-I KITCHEN HOOD EXHAUST SYSTEM, FIRE SUPPRES
DUCT, AND ALL OTHER REQUIREMENTS FOR A TYPE-I SYSTEM. INSTALL HOOD CONTROL
SENSOR(S), AND HUMIDITY SENSOR(S) WITHIN HOOD UTILITY CABINET ACCORDING TO MA
INSTALLATION REQUIREMENTS.

Date: 3/31/2026