Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 01/15/2026

Completed By: National TAB

PROJECT

01-12-26 QT #0727 MARIETTA, GA

692 POWDER SPRINGS STR

MARIETTA, GA

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 01-12-26 QT #0727 MARIETTA, 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.

Issue List

- All RTUs: Economizer Can Not Be Loosened
- EF-1 & EF-2: No Speed Control
- RTU-3: Incorrect Diffuser Style

01-12-26 QT #0727 MARIETTA, GA

Project Issue Information

Issue Name : All RTUs: Economizer Can Not Be Loosened

Description : The economizer on all units are unable to be loosened from the acutator. This caused technician to vary form normal procedure and balance was done with Emerson system and are marked.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Medium	**Asset Tag :**	
Originated Date :	01/15/2026 - Sagar Patel - National TAB		

Project Issue File Details

01/15/2026

01-12-26 QT #0727 MARIETTA, GA

Project Issue Information

Issue Name : EF-1 & EF-2: No Speed Control

Description : There is no speed control in order to increase or decrease the motor speed. EF-1, women's restroom, is at 407 cfm. EF-2, combi-oven exhaust and men's restroom, is low on design. Men's restroom is at 224 cfm and the combi-oven is at 117 cfm.

Created By : National TAB

Assigned To : National TAB - Dan Hertenstein

Status : Open

Priority : High

Asset Tag :

Originated Date : 01/15/2026 - Sagar Patel - National TAB

Project Issue File Details

01/15/2026

01/15/2026

01-12-26 QT #0727 MARIETTA, GA

Project Issue Information

Issue Name : RTU-3: Incorrect Diffuser Style

Description : Diffusers 3-1, 3-2, 3-3, and 3-4 are not correct. Correct style, Titus diffusers, are on back order. The substitute diffusers are contributing to a 5% - 20% loss around the smoke capture of the hood perimeter.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Medium	**Asset Tag :**	
Originated Date :	01/15/2026 - Sagar Patel - National TAB		

Project Issue File Details

01/15/2026

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	812	350	344				
RTU-2	SALES	800	770	350	364				
RTU-3	BOH/KITCHEN	800	798	350	351				
EF-1	WOMEN'S RR					225	402	225	402
EF-2	MEN'S RR					525	341	525	341
EF-3	HOOD					1350	1260	0	0
TOTALS		2400	2380	1050	1059	2100	2003	750	743

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2380
TOTAL EXHAUST	2100	2003
NET AIRFLOW	300	377

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0209
SIDE	0.0034
REAR	0.0063
AVERAGE	**0.0102**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1059
TOTAL EXHAUST	750	743
NET AIRFLOW	300	316

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0095
SIDE	0.0149
REAR	0.0023
AVERAGE	**0.0089**

NOTES:

CheckList List

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

01-12-26 QT #0727 MARIETTA, GA

CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/02/2026 - Trinity Dodds - National TAB		
Completed Date :	01/15/2026 - 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:	

01-12-26 QT #0727 MARIETTA, GA

CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/02/2026 - Trinity Dodds - National TAB		
Completed Date :	01/15/2026 - 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:	

01-12-26 QT #0727 MARIETTA, GA

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/02/2026 - Trinity Dodds - National TAB		
Completed Date :	01/15/2026 - 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:	

01-12-26 QT #0727 MARIETTA, GA

CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/02/2026 - Trinity Dodds - National TAB		
Completed Date :	01/15/2026 - Sagar Patel - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

Fryer and Oven

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	01/15/2026

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:

National TAB

Project: 01-12-26 QT #0727 MARIETTA, GA

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201508-ANEK12383
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	4311
SF RPM	-	1085
OA CFM (Hoods On)	800	812
OA CFM (Hoods Off)	350	344
RL Voltage	-	105 VFD
RL Amperage	-	8.29 VFD
VFD Max SetPt	-	37 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	39%
OA Damper Position (Hoods Off)	-	24%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.45”
Fan Suction SP	-	-0.61”
Fan Discharge SP	-	0.42”
Total ESP	-	1.06"
Fan Total SP	-	1.03"

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

Completed By: Sagar Patel on 01/15/2026

Unit Data - PHOTO LOG

01/15/2026

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National TAB

Project: 01-12-26 QT #0727 MARIETTA, GA

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201508-ANEK12381
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	4206
SF RPM	-	1026
OA CFM (Hoods On)	800	770
OA CFM (Hoods Off)	350	364
RL Voltage	-	92.6 VFD
RL Amperage	-	7.93 VFD
VFD Max SetPt	-	35 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	41%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.42”
Fan Suction SP	-	-0.58”
Fan Discharge SP	-	0.37”
Total ESP	-	1.00"
Fan Total SP	-	0.95"

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

Completed By: Sagar Patel on 01/15/2026

Unit Data - PHOTO LOG

01/15/2026

01/15/2026

National TAB

Project: 01-12-26 QT #0727 MARIETTA, GA

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201508-ANEK12382
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	4196
SF RPM	-	1202
OA CFM (Hoods On)	800	798
OA CFM (Hoods Off)	350	351
RL Voltage	-	130 VFD
RL Amperage	-	9.16 VFD
VFD Max SetPt	-	41 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	36%
OA Damper Position (Hoods Off)	-	21%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.57”
Fan Suction SP	-	-0.75”
Fan Discharge SP	-	0.49”
Total ESP	-	1.32"
Fan Total SP	-	1.24"

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

Completed By: Sagar Patel on 01/15/2026

Unit Data - PHOTO LOG

01/15/2026

01/15/2026

National TAB

Project:01-12-26 QT #0727 MARIETTA, 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	807	839	829	103.6
SGRD2	SUPPORT SERVICE	SI	12"	800	1	802	797	781	97.6
SGRD3	SUPPORT SERVICE	SI	12"	800	1	555	683	778	97.3
SGRD4	SUPPORT SERVICE	SI	12"	800	1	631	677	771	96.4
SGRD5	DOCK	ES	12"	750	1	822	846	764	101.9
SGRD6	WORKROOM	ES	8"	250	1	367	370	273	109.2
Total				4200		3984	4212	4196	99.9%

Completed By: Sagar Patel on 01/15/2026

National TAB

Project: 01-12-26 QT #0727 MARIETTA, GA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:WOMEN'S RR

Unit Data		
	Design	**Actual**
MFG	NA	COOK COMPANY
Model Num	NA	90 ACEH 90C150
Serial Num	-	050SF85093-00
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Frame	-	48Y
Horsepower	-	0.125
Motor Rpm	-	1600
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.7
Service Factor	-	N/L

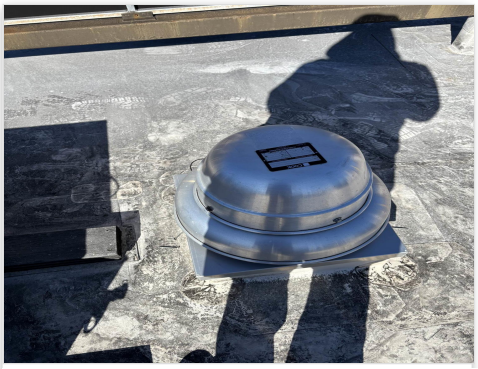
Test Data		
	Design	**Actual**
CFM	225	402
Fan Rotation	-	CCW
System SetPt	-	[2]
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.33”
Fan Inlet SP	-	-0.33”
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 01/15/2026

Notes:
[1] UNABLE TO READ VOLTS AND AMPS SAFELY
[2] NO SPEED CONTROL ON UNIT

Written By: Sagar Patel on 01/15/2026

Unit Data - PHOTO LOG



01/15/2026

National TAB

Project: 01-12-26 QT #0727 MARIETTA, GA

System/Unit: FAN - Exhaust

Asset: EF2 AREA:MEN'S RR/COMBI

Unit Data		
	Design	**Actual**
MFG	NA	COOK COMPANY
Model Num	NA	120 ACEH 120C130
Serial Num	-	050SF35093-00
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Frame	-	48Y
Horsepower	-	0.25
Motor Rpm	-	1300
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3.3
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	525	341
Fan Rotation	-	CCW
System SetPt	-	[2]
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.22"
Fan Inlet SP	-	-0.22”
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 01/15/2026

Notes:
[1] UNABLE TO READ VOLTS AND AMPS SAFELY
[2] NO SPEED CONTROL ON UNIT

Written By: Sagar Patel on 01/15/2026

Unit Data - PHOTO LOG

01/15/2026

National TAB

Project:01-12-26 QT #0727 MARIETTA, GA

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	RI	8"	150	1	117	117	117	78.0
Total				150		117	117	117	78%

Completed By: Sagar Patel on 01/15/2026

National TAB

Project: 01-12-26 QT #0727 MARIETTA, GA

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8225527
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

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

Test Data		
	Design	**Actual**
CFM	1350	1260
Fan RPM	-	1162
Fan Rotation	-	CCW
Motor RPM	-	1162
System SetPt	-	51.6 Hz (64% on MSC)
RL Voltage	-	213
RL Amperage	-	1.6
Total ESP	-	0.39"
Fan Inlet SP	-	-0.39”
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 01/15/2026

Unit Data - PHOTO LOG

01/15/2026

National TAB

Project: 01-12-26 QT #0727 MARIETTA, 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	-	8225527
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	-	12.48
Filter Total AK Area	-	12.48
Filter1 FPM	-	84
Filter2 FPM	-	105
Filter3 FPM	-	109
Filter4 FPM	-	106
Filter5 FPM	-	109
Filter6 FPM	-	92
Filter Ave FPM(corr)	-	101
CFM	1350	1260

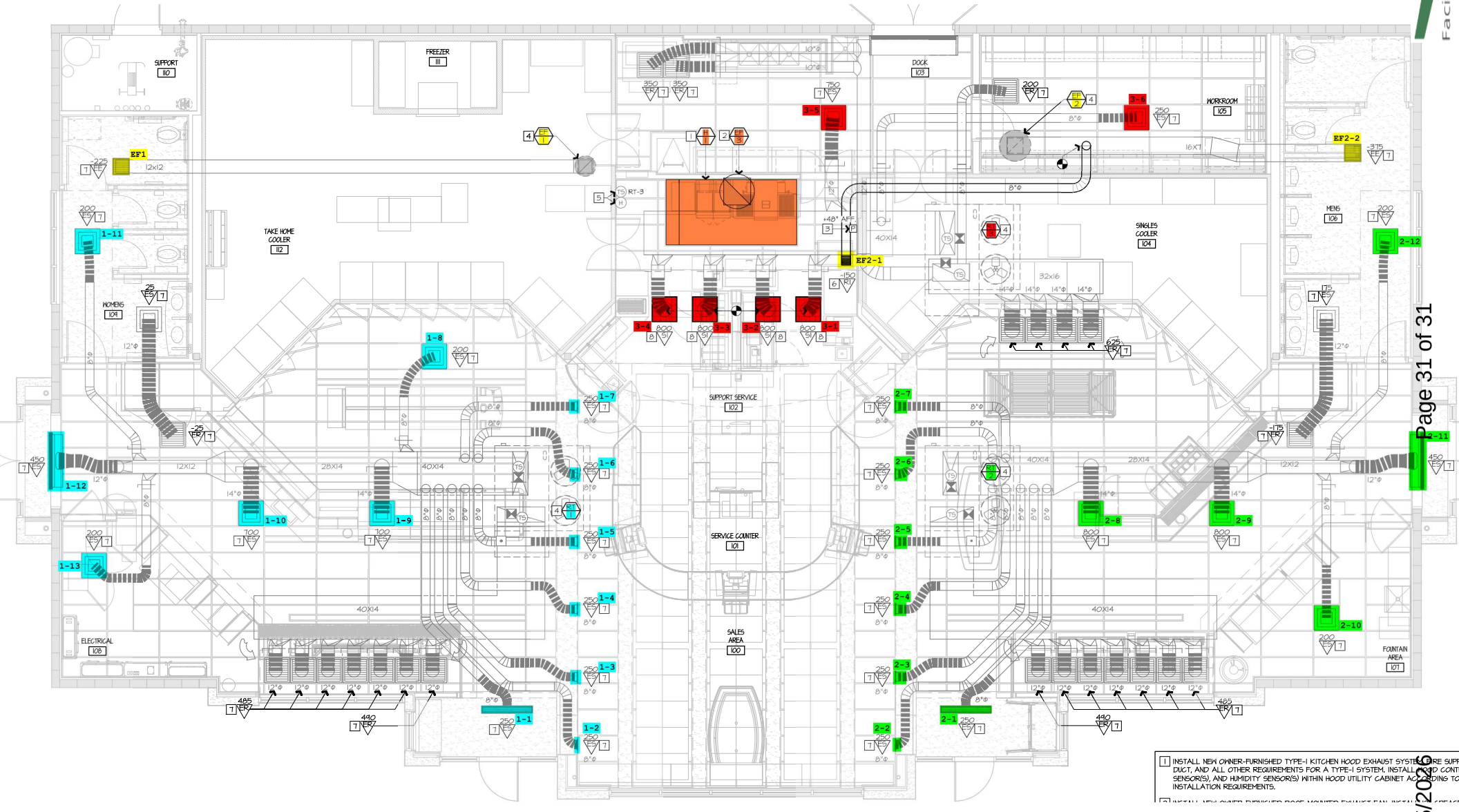
Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	OVEN

Completed By: Sagar Patel on 01/15/2026

Unit Data - PHOTO LOG

01/15/2026

01/15/2026



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

Date: 1/15/2026