Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 03/06/2026

Completed By: National TAB

PROJECT

03-16-26 QT #0490 PEORIA, AZ

8870 W THUNDERBIRD RD

PEORIA, AZ

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 03-16-26 QT #0490 PEORIA, AZ

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

- RTU-3 bb code

03-16-26 QT #0490 PEORIA, AZ

Project Issue Information

Issue Name : RTU-3 bb code

Description : RTU-3 has a bb alarm code and is not running

Created By : National TAB

Assigned To : National TAB - Dan Hertenstein

Status : Open

Priority : Urgent

Asset Tag : RT-3

Originated Date : 03/17/2026 - Ethan Van Orden - National TAB

Project Issue File Details

03/17/2026

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	818	350	378				
RTU-2	SALES	800	783	350	378				
RTU-3	BOH/KITCHEN	800	0	350	0				
EF-1	WOMEN'S RR					225	215	225	215
EF-2	MEN'S RR					525	546	525	546
EF-3	HOOD					1350	1322	0	0
TOTALS		2400	1601	1050	756	2100	2083	750	761

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	1601
TOTAL EXHAUST	2100	2083
NET AIRFLOW	300	-482

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	-0.0048
SIDE	-0.0082
REAR	-0.0104
AVERAGE	**-0.0078**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	756
TOTAL EXHAUST	750	761
NET AIRFLOW	300	-5

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	-0.0032
SIDE	-0.0023
REAR	-0.0038
AVERAGE	**-0.0031**

NOTES:

CheckList List

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

03-16-26 QT #0490 PEORIA, AZ

CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/06/2026 - Trinity Dodds - National TAB		
Completed Date :	03/17/2026 - Ethan Van Orden - 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:	

03-16-26 QT #0490 PEORIA, AZ

CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/06/2026 - Trinity Dodds - National TAB		
Completed Date :	03/17/2026 - Ethan Van Orden - 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:	

03-16-26 QT #0490 PEORIA, AZ

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/06/2026 - Trinity Dodds - National TAB		
Completed Date :	03/17/2026 - Ethan Van Orden - 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:	

03-16-26 QT #0490 PEORIA, AZ

CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/06/2026 - Trinity Dodds - National TAB		
Completed Date :	03/17/2026 - Ethan Van Orden - 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:

SMOKE BOMB

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	03/17/2026

Comment:

TAB tech name / Firm

Comment:

Ethan V/NTI

Site super name / Firm

Comment:

Owner representative name / Firm (if Applicable)

Comment:

QT

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:

03-16-26 QT #0490 PEORIA, AZ

CheckList Information

Name :	05: Smoke Detector	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/06/2026 - Trinity Dodds - National TAB		
Completed Date :	03/17/2026 - Ethan Van Orden - National TAB		

CheckList Item Details

Smoke Detector Manufacturer:

Comment:

SYSTEM SENSOR

Smoke Detector Model:

Comment:

AD4P120

Accpetable Pressure Range Rating:

Comment:

0.01-1.11

Actual Measured Pressure Range:

Comment:

RTU-1: 0.764" RTU-2: 0.517" RTU-3: NA

Smoke Detector Shutdown? N/A

Comment:

RTU-1: PASS RTU-2: PASS RTU-3: NA

Notes/Comments :

RTU-3 not running

Date :03/17/2026

National TAB

Project: 03-16-26 QT #0490 PEORIA, AZ

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201503-ANEL11751
Model Num	RN-015-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45x22
Num Final Filter 1	2
Final Filter Size 1	48X20

Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	5
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	16.7

Test Data		
	Design	**Actual**
SF CFM	4200	4153
SF RPM	-	1232
OA CFM (Hoods On)	800	818
OA CFM (Hoods Off)	350	378
RL Voltage	-	128@VFD
RL Amperage	-	9.8@VFD
VFD Max SetPt	-	42HZ
VFD Min SetPt	-	24HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	28%

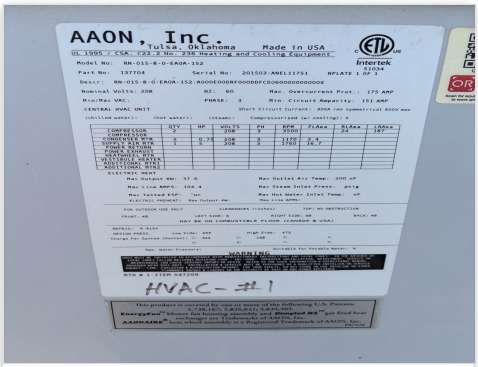
Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.67”
Fan Suction SP	-	-0.91”
Fan Discharge SP	-	0.52”
Total ESP	-	1.19"
Fan Total SP	-	1.43"

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

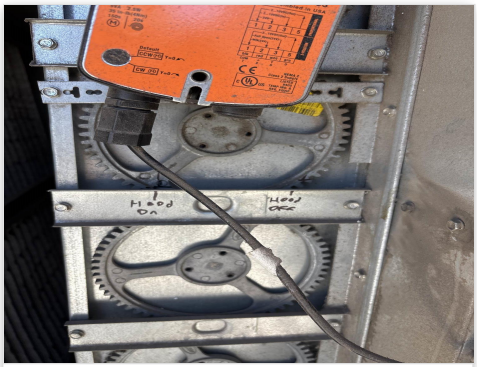
Completed By: Ethan Van Orden on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026



03/17/2026



03/17/2026

National TAB

Project: 03-16-26 QT #0490 PEORIA, AZ

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201503-ANEL11752
Model Num	RN-015-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22
Num Final Filter 1	2
Final Filter Size 1	48X20

Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	5
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	16.7

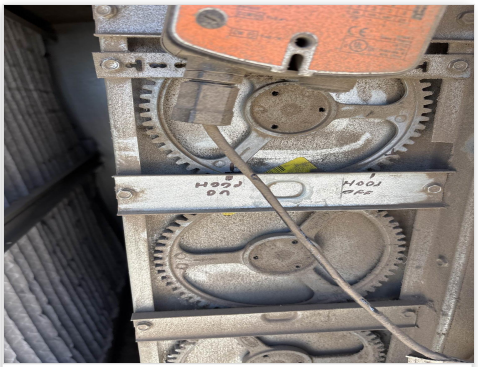
Test Data		
	Design	**Actual**
SF CFM	4200	4155
SF RPM	-	1232
OA CFM (Hoods On)	800	783
OA CFM (Hoods Off)	350	378
RL Voltage	-	128@VFD
RL Amperage	-	9.2@VFD
VFD Max SetPt	-	42HZ
VFD Min SetPt	-	24HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	27%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.56”
Fan Suction SP	-	-0.82”
Fan Discharge SP	-	0.42”
Total ESP	-	0.98"
Fan Total SP	-	1.24"

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

Completed By: Ethan Van Orden on 03/17/2026

Unit Data - PHOTO LOG



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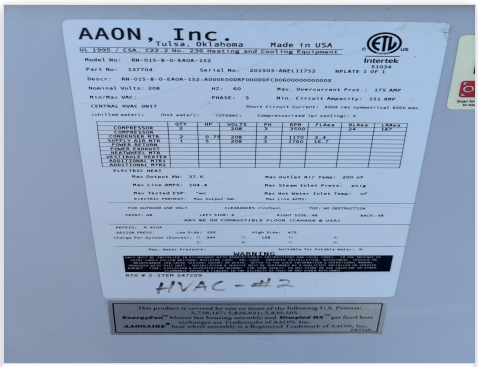


03/17/2026

03/17/2026

National TAB

Project: 03-16-26 QT #0490 PEORIA, AZ

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201503-ANEK11753
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X23
Num Final Filter 1	2
Final Filter Size 1	48X20

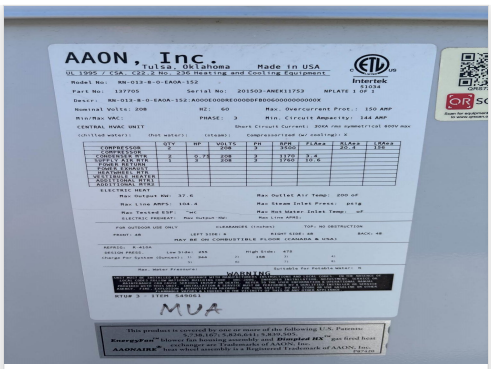
Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	0

Completed By: Ethan Van Orden on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026



03/17/2026

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				-
SGRD2	SUPPORT SERVICE	SI	12"	800	1				-
SGRD3	SUPPORT SERVICE	SI	12"	800	1				-
SGRD4	SUPPORT SERVICE	SI	12"	800	1				-
SGRD5	DOCK	ES	12"	650	1				-
SGRD6	WORKROOM	ES	8"	150	1				-
Total				4000		0	0	0	0%

National TAB

Project: 03-16-26 QT #0490 PEORIA, AZ

System/Unit: FAN - Exhaust

Asset: EF1 AREA:WOMEN'S RR

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	90 ACEH 90C15DH
Serial Num	-	100SF66033-00/0000701
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	48Y
Horsepower	-	0.125
Motor Rpm	-	1550
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.7
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	225	215
Fan RPM	-	NA
Fan Rotation	-	NA
Motor RPM	-	NA
System SetPt	-	WIRE
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	0.24”
Fan Inlet SP	-	-0.24”
Fan Discharge SP	-	ATMS

Completed By: Ethan Van Orden on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026

03/17/2026

National TAB

Project: 03-16-26 QT #0490 PEORIA, AZ

System/Unit: FAN - Exhaust

Asset: EF2 AREA:MEN'S RR/COMBI

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	120 ACE 120C13D
Serial Num	-	100SF66088-00/0001901
Type	-	DOWNBLAST
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	-	NL

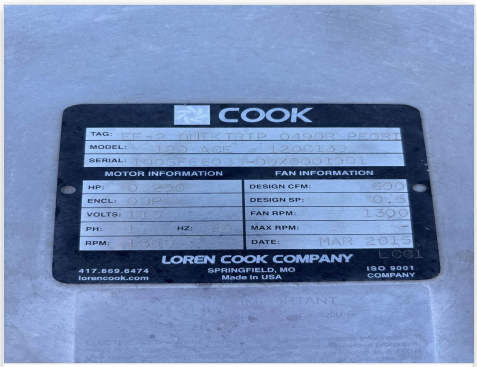
Test Data		
	Design	**Actual**
CFM	525	546
Fan RPM	-	NA
Fan Rotation	-	NA
Motor RPM	-	NA
System SetPt	-	DIAL
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	0.41”
Fan Inlet SP	-	-0.41”
Fan Discharge SP	-	ATMS

Completed By: Ethan Van Orden on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026

03/17/2026



03/17/2026

Test Data - PHOTO LOG

03/17/2026

National TAB

Project:03-16-26 QT #0490 PEORIA, AZ

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	SUPPORT SERVICE	RI	8"	150	1	75	154	154	102.7
Total				150		75	154	154	102.67%

Completed By: Ethan Van Orden on 03/17/2026

National TAB

Project: 03-16-26 QT #0490 PEORIA, AZ

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8385026
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

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

Test Data		
	Design	**Actual**
CFM	1350	1322
Fan RPM	-	1195
Fan Rotation	-	CCW
Motor RPM	-	1195
System SetPt	-	52.8HZ
RL Voltage	-	210
RL Amperage	-	2.7
Total ESP	-	0.57”
Fan Inlet SP	-	-0.57”
Fan Discharge SP	-	ATMS

Completed By: Ethan Van Orden on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026

03/17/2026

National TAB

Project: 03-16-26 QT #0490 PEORIA, 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	-	8385026
Type	-	TYPE I CANOPY
Hood length	-	108”
Hood Width	-	60”

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	BAFFLE
Filter Size 1	-	20X16
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	105
Filter2 FPM	-	102
Filter3 FPM	-	115
Filter4 FPM	-	114
Filter5 FPM	-	102
Filter6 FPM	-	103
Filter Ave FPM(corr)	-	106
CFM	1350	1322

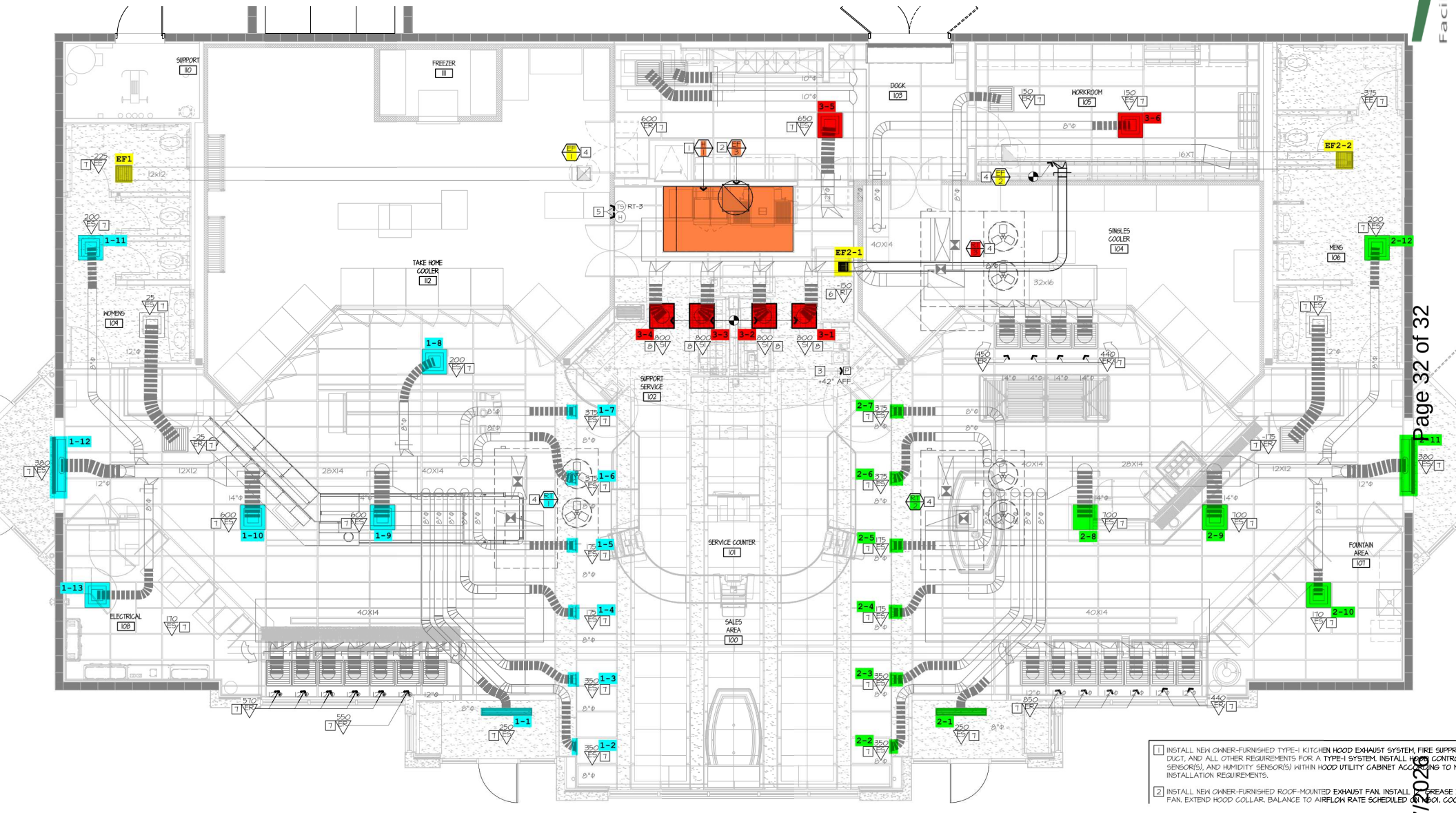
Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	OVEN

Completed By: Ethan Van Orden on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026

03/17/2026



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

2 INSTALL NEW OWNER-FURNISHED ROOF-MOUNTED EXHAUST FAN. INSTALL GREASE
FAN. EXTEND HOOD COLLAR. BALANCE TO AIRFLOW RATE SCHEDULED IN HOOD. CO

Date: 3/17/2026