Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 05/12/2025

Completed By: National TAB

PROJECT

05-05-25 CAVA DENVER, CO (STAPLETON)

8969 E 46TH AVE

DENVER, CO 80238

Client

CAVA

702 H ST NW

2nd floor

Washington, DC 20001

National TAB

Project: 05-05-25 CAVA DENVER, CO (STAPLETON)

Table Of Contents

Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail 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) w/ Diffusers
Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

Kitchen Exhaust Hood & Associated Fans
Each 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. . Any EF's that fell outside of this tolerance is noted throughout the report.

MUA (Make Up Air Unit) w/ PSP
Total flow for the MAU (Make-up Air Unit) unit was measured by readings taken at the discharge of the hood's perforated supply plenum. Readings taken with a velocity matrix were averaged and multiplied by a manufacturer's corrected area. Adjustments to the fan speed were made in order to bring the unit to within design tolerance. Any MUA's that fell outside of this tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles
The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

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 of -0.02" wc to +0.02" wc 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

- KEF gap between duct and curb.
- MUA/DOAS filter compartment door.
- RTU-1 heating and cooling.

05-05-25 CAVA DENVER, CO (STAPLETON)

Project Issue Information

Issue Name : KEF gap between duct and curb.

Description : There is a gap between the exhaust duct flange and the curb; its location will not cause airflow issues but it is recommended to fire caulk it to prevent insects from getting inside.

Created By :	National TAB	**Assigned To :**	National TAB - Will Turnbough
Status :	Open		
Priority :	Low	**Asset Tag :**	KEF1
Originated Date :	05/08/2025 - Cody Collett - National TAB		

Project Issue File Details

05/08/2025

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Project Issue Information

Issue Name :	MUA/DOAS filter compartment door.		
Description :	MUA/DOAS filter compartment door is obstructed from opening due to gas piping being in the way. Door has removable hinges that should allow for the doors removal to replace filters when needed.		
Created By :	National TAB	**Assigned To :**	National TAB - Will Turnbough
Status :	Open		
Priority :	Low	**Asset Tag :**	MAU1
Originated Date :	05/08/2025 - Cody Collett - National TAB		

05-05-25 CAVA DENVER, CO (STAPLETON)

Project Issue Information

Issue Name :	RTU-1 heating and cooling.		
Description :	RTU-1 heating and cooling do not function correctly. LET for both heating and cooling were not within expected range. Mechanical working to resolve on day of departure.		
Created By :	National TAB	**Assigned To :**	National TAB - Will Turnbough
Status :	Open		
Priority :	Urgent	**Asset Tag :**	RTU1
Originated Date :	05/09/2025 - Cody Collett - National TAB		

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	KITCHEN	2800	2865	1845	1942	955	923	34.1%	32.2%						
RTU-2	DINING	4000	4054	3075	3675	400	379	10.0%	9.3%						
EF-1	COOK LINE											2117	2140		
EF-2	BATHROOM													200	186
MAU-1	HOOD									1694	1613				
TOTALS		6800	6919	4920	5617	1355	1302			1694	1613	2117	2140	200	186

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3049	2915
TOTAL EXHAUST	2317	2326
NET AIRFLOW	732	589

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.001
SIDE	0.005
REAR	0.008
AVERAGE	**0.0047**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

CheckList List

- FIV - EF'S
- FIV - HVAC DUCTWORK
- FIV - RTU'S
- FIV – HOODS
- FIV – MUA
- FPT - BUILDING PRESSURE AND HOOD CONTAINMENT
- FPT - KEF'S
- FPT - RTU's
- FPT – MUA

05-05-25 CAVA DENVER, CO (STAPLETON)

CheckList Information

Name :	FIV - EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

Unit Tag matches the design and submittal MFG and Model	Pass
Comment:	
Each exhaust fan is proper tagged for proper identification with tags sized and placed on the fan for visual ease	Pass
Comment:	
Fans are installed in the correct location and orientation	Pass
Comment:	
All packing, material and debris has been removed from the blower/wheel housing and the motor compartment	Pass
Comment:	
Fan wheels turn easily by hand (turn power off prior to testing)	Pass
Comment:	
Fans grease duct curb top plate is properly transitioned to the fan inlet and flush on top of the curb, sealed to the fan base to prevent leakage	Pass
Comment:	

Exhaust fans have external disconnects and are connected to allow full hinging of each exhaust fan	Pass
Comment:	
Fan is properly hinged and supported when hinged fully back for grease duct access (for Halton fans, ensure the base mounted disconnect is not hitting the fan base/curb when fully hinged back)	Pass
Comment:	
Grease cups are properly installed and connected to the fan base grease drain to prevent spilling outside of the grease cup	Pass
Comment:	
Exhaust fans are located 5ft from parapet wall and 10ft from any fresh air intake.	Pass
Comment:	

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CheckList Information

Name :	FIV - HVAC DUCTWORK	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

KVS - GREASE DUCT (HOOD SYSTEM)

Grease duct is sized and routed per plan	Pass
Comment:	
Grease duct is properly supported	Pass
Comment:	
Grease duct has code required negative pitch from fan inlet back to the hood riser connection	
Comment:	
Grease duct has required clean-out doors installed, labeled, and accessible for removal/cleaning. Doors are located as required by code	N/A
Comment:	
Grease duct clean-out doors are secured using tool less fasteners and seal fully when hand tightened	N/A
Comment:	
Grease duct is centered in the curb and transitions as required to ensure the fan inlet is fully covered by the grease duct opening. Duct top plate flanges to the edges of the curb and is secured and flat so that the fan sits flush and square.	Pass

Comment:	
Grease duct is wrapped if welded duct, or is double wall round duct?	Pass
Comment:	
KVS - MUA DUCT (HOOD SYSTEM)	
MUA duct is routed and sized as per plan	Pass
Comment:	
MUA duct is properly supported	Pass
Comment:	
MUA duct seams are sealed air tight using proper sealant and application for SMACNA pressure rating of duct systems	Yes
Comment:	
MUA duct is externally insulated and taped to prevent vapor barrier from being breached	Pass
Comment:	
MUA duct drop box and transitions are done to encourage laminar flow and avoid restrictions	Pass
Comment:	
Branch take-off's have accessible dampers exposed for the TAB team to adjust each line as necessary	Pass
Comment:	
Flex duct (if used) is supported and straight with no more than one (1) hard 90 degree elbow and less than 5ft in total length	Pass
Comment:	
Connection to the hood MUA plenum is secured and foil taped to prevent air leakage	Pass
Comment:	
RESTROOM DUCT	

Restroom duct is routed and sized per plan	Pass
Comment:	
Restroom duct is properly supported	N/A
Comment: Cannot access due to hard ceiling.	
Duct seams are sealed	N/A
Comment: Cannot access due to hard ceiling.	
Dampers are accessible to TAB team for balancing	Pass
Comment: Face dampers.	
Flex duct (if used) is supported and straight with no more than one (1) hard 90 degree elbow and less than 5ft in total length	N/A
Comment: Cannot access due to hard ceiling.	
Duct is secured to exhaust register	Pass
Comment:	
Gravity damper is installed, opens and closes freely, and is sealed to prevent air leakage	Pass
Comment:	
Duct to curb transition is centered and sized to ensure it covers the entire fan inlet. Curb top plate is flush and secured to the ends of the curb.	Pass
Comment:	
HVAC DUCT	
Kitchen and Dining room duct is routed and sized as per plan	Pass
Comment:	
Ducts are properly supported	Pass

Comment:	
Ductwork is externally insulated	Yes
Comment:	
Duct seams are sealed air tight using proper sealant and application for SMACNA pressure rating of duct systems	Pass
Comment:	
Ducts are securely insulated as per specificatins and foil taped to prevent air barrier from being breached	Pass
Comment:	
Takeoffs are installed to serve required terminal diffusers and are equipped with accessible dampers for TAB team access and can be opened or closed fully with no impingements	Pass
Comment:	
Flex duct (if used) is supported and straight with no more than one (1) hard 90 degree elbow and less than 5ft in total length	Pass
Comment:	
Takeoff to diffuser is installed securely to prevent slippage and air leakage	Pass
Comment:	
All diffuser neck or opening sizes are installed as planned	Pass
Comment:	
Supply and Return duct transitions to top of RTU curb, sized to full width and length of opening and is flashed fully to the sides of the curb.	Pass
Comment:	

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CheckList Information

Name :	FIV - RTU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

RTU IDENTIFICATION, ORIENTATION & LOCATION

Each RTU is tagged for proper identification with tags sized and placed on the fan for visual ease	Pass
Comment:	
Identify and ensure the RTU label information and size is correct	Pass
Comment:	
Ensure proper location of unit	Pass
Comment:	
Ensure orientation of curb & RTU is per plan	Pass
Comment:	
Ensure Packing in the blower compartment has been removed	Pass
Comment:	

RTU - INSTALLATION DETAILS

With disconnect switch "off" spin the indoor and outdoor fan wheel's by hand and ensure they spin freely	Pass

Comment:

Ensure Roof Curb is fully flashed by roofing material and secured and curb is level	Pass

Comment:

Inspect the interior of the supply heat exchange compartment and return air compartment - validate that the duct is flashed and sealed to the top of the curb to prevent leakage or short cycling	Pass

Comment:

Hail guards installed on outdoor condenser coils	Pass

Comment:

RTU - ACCESSORIES

Power connected & disconnect installed	Pass

Comment:

Gas line connected per specification (size, painting, supports, shut-off valves, traps)	N/A

Comment:

Electric heat.

OA hood & filters installed	Pass

Comment:

Economizer wired to control board	Pass

Comment:

Evaporator coil filters are properly installed with specified MERV rating	Fail

Comment:

Construction dust filters installed.

Economizer damper is installed properly	Pass

Comment:

Economizer OA temperature / enthalpy sensors installed and wired	Pass

Comment:	
Thermostat and humidity (if applicable) control wires wired to RTU terminals	Pass
Comment:	
Condensate drain installed per specification	Fail
Comment: No condensate drains installed.	
Condensate line drains away from unit to a approved roof drain	Fail
Comment:	
Belts are tight?	N/A
Comment:	
Pulleys aligned?	N/A
Comment:	
MERV rated filters are installed and are clean?	Fail
Comment: Construction dust filters installed.	

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CheckList Information

Name :	FIV – HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

HOOD INSTALLATION DETAILS

Kitchen hoods tags match design and submitted information	Pass
Comment:	
Kitchen hoods are hung Level using 1/2" threaded rod	Pass
Comment:	
Kitchen hoods are supported using beam clamps and/or Unistrut per required structural and local AHJ requirements	Pass
Comment:	
Kitchen hoods are hung level front to back and side to side	Pass
Comment:	
Kitchen hoods are hung at 80" AFF	Pass
Comment:	
Kitchen Hoods are flush against the wall along the bottom and each of it's side walls.	Fail
Comment:	

Right side of hood is caulked with 1/2" of caulk and is 1/2 inch away from the wall.

Caulk is applied (less than 1/8" thick) from the hood against all wall surfaces or between connecting side to side hoods to prevent grease accumulation inside any crevice.	Fail
Comment: Right side of hood is caulked with 1/2" of caulk and is 1/2 inch away from the wall.	
There are no penetrations into the hood canopy other than fire system nozzles	Pass
Comment:	
The hood is in "As New" condition with no visible damage, rust, pitting, or other blemishes	Pass
Comment: Minor denting typical of normal construction operations.	
All protective film has been peeled away from the wall or other areas of impingement to assure it can be easily and fully removed prior to cleaning.	Pass
Comment:	
HOOD ACCESSORIES	
End panels are installed	Pass
Comment:	
Hood filters are installed	Pass
Comment:	
Grease cups are installed	Pass
Comment:	
Ceiling Wrappers are installed and the ceiling grid is fixed to the top of the ceiling wrappers	Pass
Comment:	
Hood control panel has been identified and is located as per plan, is accessible, and contains all components and temperature sensors to meet local interlock (normal and abnormal conditions) and heat auto on/off functionality.	Pass
Comment:	

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CheckList Information

Name :	FIV – MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

MUA Tag information matches design and submittal criteria	Pass
Comment:	
MUA Fan has a permanent tag for identification located on the unit located and sized for visual ease	Pass
Comment:	
MUA is installed in the proper location and orientation	Pass
Comment:	
MUA intake is a minimum 10ft from any exhaust, roof vent or dirty air source	Pass
Comment:	
Blower compartment and internal heater area is free of packing material, debris, and dirt	Pass
Comment:	
Blower wheel turns freely by hand (turn power off prior to testing)	Pass
Comment:	
All MUA compartment and control doors are fully accessible, minimum 36" clearance for service allowing the doors to fully open without restriction	Fail

Comment:

Filter compartment is obstructed by gas line.

MUA Electrical disconnect is external to the unit and properly wired	Pass

Comment:

Outdoor air awning is installed and fitted with proper OA mesh filters	Pass

Comment:

Condensate drain is installed (for cooling MUA's) with proper traps, clean-outs, and drain away from the unit to an acceptable roof drain	Pass

Comment:

Refrigeration line sets are installed and connected properly with adequate supports per specifications	N/A

Comment:

DOAS unit installed, installed by factory.

Condenser is installed away from any grease producing exhaust fans and located as per roof plan	Pass

Comment:

Condensers are in DOAS unit.

Condenser's electrical disconnect is external to the unit and properly wired (if applicable)	N/A

Comment:

Condenser hail guards are installed (if applicable)	Pass

Comment:

All Condenser compartment and control doors are fully accessible, minimum 36" clearance for service allowing the doors to fully open without restriction (if applicable)	Pass

Comment:

Gas line is installed per specification and properly supported	Fail

Comment:

Gas line obstructs filter compartment door from opening.

Gas line is installed per specification and properly supported and contains maintenance shut-off valve, trap, and regulator (if line pressure requires it). MUA is equipped with inlet gas pressure gauge to validate incoming gas pressure is suitable	Pass

Comment:

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CheckList Information

Name :	FPT - BUILDING PRESSURE AND HOOD CONTAINMENT	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

All HVAC equipment.

List smoke candle type used

Comment:

45 second smoke candle.

Smoke test capture - Perimeter of hood (%)

Comment:

100%

Smoke test capture - Top of cooking surface (%)

Comment:

100%

WITNESS

Date test was completed	05/09/2025

Comment:

TAB tech name / Firm

Comment:

Cody Collett/ NTI

Site super name / Firm

Comment:

Elizabeth/ EPIC Construction.

Owner representative name / Firm (if Applicable)

Comment:

EPIC construction

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)

Comment:

Yes.

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CheckList Information

Name :	FPT - KEF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

Exhaust fans wheel rotation is correct	Pass
Comment:	
TAB firm has balanced the exhaust fans to proper design levels	Pass
Comment:	
All motor and electrical readings are below the full load rating of each fan	Pass
Comment:	
Exhaust Fans do not have any unusual noise or vibration while operating	Pass
Comment:	
Smoke and Grease from exhaust fans appear to properly elevate above the parapet wall and off the roof.	Pass
Comment:	
Hoods have been started up by the manufacturers rep?	Pass
Comment:	
Hoods free of alarms?	Pass

Comment:

Exhaust fans modulate to high speed when kitchen equipment is on and at cooking temperatures? If not, adjust modulation/offset down.	Pass

Comment:

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CheckList Information

Name :	FPT - RTU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

THERMOSTAT PROGRAMMING AND CALIBRATION

Time is correct on the thermostats	Pass
Comment:	
Occupied Time = 7:30 AM	Pass
Comment:	
Occupied Heat setpoint = 68	Pass
Comment:	
Occupied Cooling setpoint = 72	Pass
Comment:	
Dehumidification Setpoint = 55%	N/A
Comment:	
Occupied Fan = On	N/A
Comment:	
Unoccupied Time = 12:00AM	Pass

Comment:

Unoccupied Heat setpoint = 60	Pass

Comment:

Occupied Cooling setpoint = 80	Pass

Comment:

Unoccupied Fan = Auto	N/A

Comment:

Actual measured temperature is within +/-1 degree of temperature displayed on thermostat. If not calibrate the sensor	Pass

Comment:

Actual measured RH is within +/-3 % of displayed RH at RTU or thermostat. If not calibrate the sensor	N/A

Comment:

No RH displayed on thermostat or units.

CONTROL WIRING VALIDATION

Economizer Dry Bulb sensor wired	Pass

Comment:

YES

Economizer Dry Bulb sensor operational	Pass

Comment:

YES

OCP/OCC terminal wired correctly	N/A

Comment:

OCP terminal is factory jumpered. When the unit receives a command from the thermostat unit will operate as occupied.

Thermostat Wired correctly (R,C,Y1,Y2,W1,W2)	Pass

Comment:

RTU-2 Yes, RTU-1 not wired.

Humidity Sensor Wired correctly	Pass
Comment:	

CALIBRATION & PROGRAMMING

RTU OA DB StPt, Reading Accuracy (+/- 2 degrees / 10 minute time to calibrate to actual reading)	Pass
Comment: RTU-2 reading 80f, actual 81f RTU-1 reading 74f, actual 74f	
RTU MAT StPt, Reading Accuracy (+/- 2 degrees / 10 minute time to calibrate to actual reading)	N/A
Comment: MAT reading not displayed by RTU-1 or RTU-2 RTU-1 actual 74.4f RTU-2 actual 73.9f	
RTU MAT Low StPt	
Comment: RTU-1 53f RTU-2 53f	
RTU Low T Lockout	
Comment: RTU-1 45f RTU-2 45f	
Economizer set to 28 BTU/lb enthalpy setpoint.	N/A
Comment: No setting on controller.	
Temperature tests	
Outside air temperature / humidity	
Comment: 74.3f	
Full cooling LAT/H	
Comment: RTU-1 71.4 RTU-2 52f	
Full heating LAT/H	

Comment:

RTU-1 74f RTU-2 120.2f

OUTDOOR AIR / RELIEF DAMPER

If power exhaust installed, set point is higher than the OA damper setpoint	N/A

Comment:

Power exhaust is installed but not wired. Informed by mechanical.

If power exhaust installed, open the OA damper above the power exhaust setpoint and ensure that the power exhaust turns on	N/A

Comment:

Power exhaust is installed but not wired. Informed by mechanical.

If relief damper is installed, ensure that it is installed properly and can open freely.	N/A

Comment:

Power exhaust is installed but not wired. Informed by mechanical.

OCCUPANCY VALIDATION

Place the thermostat in "unoccupied" - Does the OA damper close fully	N/A

Comment:

OCP terminal is factory jumpered. When the unit receives a command from the thermostat unit will operate as occupied.

Stage cooling and Heating in "unoccupied" - Does the unit properly stage and does the OA damper remain closed	N/A

Comment:

OCP terminal is factory jumpered. When the unit receives a command from the thermostat unit will operate as occupied.

Place the thermostat in "Occupied" - Does the OA damper open to the TAB preset minimum position in High speed	Pass

Comment:

OCP terminal is factory jumpered. When the unit receives a command from the thermostat unit will operate as occupied.

Place the thermostat in "Occupied" - Does the OA damper open to the TAB preset minimum position in Low speed (if applicable)	N/A

Comment:

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CheckList Information

Name :	FPT – MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2025 - Kyle Henry - National TAB		
Completed Date :	05/09/2025 - Cody Collett - National TAB		

CheckList Item Details

TAB firm has balanced the MUA to within proper design limits	Pass
Comment:	
Blower wheel rotation is correct	Pass
Comment:	
MUA does not have any unusual noise or vibration while operating	Pass
Comment:	
Motor and electrical measurements are below the full load rating	Pass
Comment:	
Startup has been completed by the manufacturers rep?	Pass
Comment:	
Heater tested and is functional?	Pass
Comment:	
Cooling is tested and is functional?	Yes

Comment:

National TAB

Project: 05-05-25 CAVA DENVER, CO (STAPLETON)

System/Unit: AHU/RTU

Asset: MAU1 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	7327435
Model Num	CAS-HVAC1-1.200-15-3T-MPU	CAS-HVAC1-l.200-15-3T-MPU
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	20X16
Num Final Filter 1	-	4
Final Filter Size 1	-	16X16
Num Final Filter 2	-	4
Final Filter Size 2	-	16X16

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	-	1.5
Motor Rpm	-	1740
Phase	-	3
Rated Voltage	-	230
Rated Amperage	-	4.02

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	**Actual**
SF CFM	1694	1613
SF RPM	-	1393
RA CFM	0	0
OA CFM	1694	1613
RL Voltage	-	145/145/145
RL Amperage	-	3.1
SF Rotation	-	CCW
SF System SetPt	-	90% / 48hz
RA Damper Position	-	0%
Min OA Damper Position	-	100%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

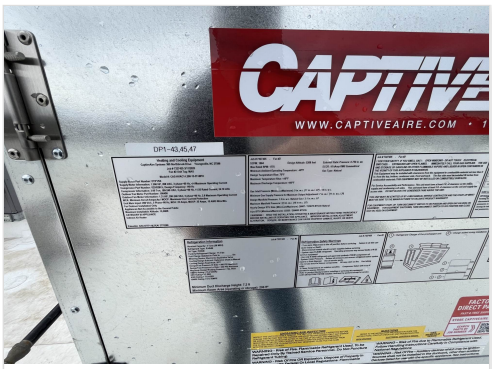
General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Cody Collett on 05/09/2025

Notes:
FILTER 1 MERV 8
FILTER 2 MERV 13

Written By: Cody Collett on 05/09/2025

Unit Data - PHOTO LOG



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Motor Data - PHOTO LOG

05/09/2025

National TAB

Project: 05-05-25 CAVA DENVER, CO (STAPLETON)

System/Unit: AHU/RTU

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	DAIKIN	CARRIER
Serial Num	-	4324P65217
Model Num	DPS007A	50GCQM08J2M5A8U010
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	25x38.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20x20

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	208	208/230
Rated Amperage	-	6.4

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	**Actual**
SF CFM	2800	2865
SF RPM	-	1096
RA CFM	1845	1942
OA CFM	955	923
RL Voltage	-	205/204/204
RL Amperage	-	1.35/NA/NA
SF Rotation	-	CCW
SF System SetPt	-	A 5.12VAC
RA Damper Position	-	49%
Min OA Damper Position	-	51% 6.2VAC
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.32"
Fan Suction SP	-	-0.45"
Fan Discharge SP	-	0.16"
Total ESP	NA	0.48"
Fan Total SP	-	0.61"

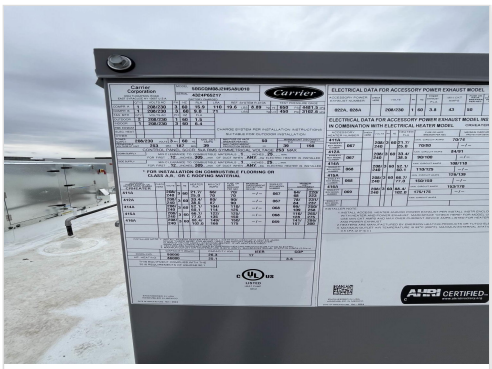
General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	NO

Completed By: Cody Collett on 05/09/2025

Notes:
Thermostat wire not complete; Jumper wired for testing.

Written By: Cody Collett on 05/09/2025

Unit Data - PHOTO LOG



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National TAB

Project:05-05-25 CAVA DENVER, CO (STAPLETON)

AHU/RTU

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	E	12"	400	0.66	601	398	411	102.8
SGRD2	DINING	E	12"	400	0.66	588	415	421	105.3
SGRD3	DINING	E	8"	200	0.66	370	248	208	104.0
SGRD4	DINING	E	12"	400	0.66	513	338	429	107.3
SGRD5	DINING	E	12"	400	0.66	732	476	417	104.3
SGRD6	DINING	E	12"	400	0.66	737	483	389	97.3
SGRD7	DINING	E	12"	400	0.66	718	446	399	99.8
SGRD8	RESTROOM	C	6"	50	1	58	58	54	108.0
SGRD9	HALLWAY	C	6"	100	1	56	56	91	91.0
SGRD10	RESTROOM	C	6"	50	1	53	53	46	92.0
Total				2800		4426	2971	2865	102.32%

Completed By: Cody Collett on 05/09/2025

National TAB

Project: 05-05-25 CAVA DENVER, CO (STAPLETON)

System/Unit: AHU/RTU

Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	DAIKIN	CARRIER
Serial Num	-	4124P00121
Model Num	DPS010A	50GCQM12J3M5A8U010
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	25x25”
Num Final Filter 1	-	6
Final Filter Size 1	-	24x18”

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	208	208/230
Rated Amperage	-	12.6

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	**Actual**
SF CFM	4000	4054
SF RPM	-	1606
RA CFM	3600	3675
OA CFM	400	379
RL Voltage	-	206/205/205
RL Amperage	-	3.25/BA/NA
SF Rotation	-	CCW
SF System SetPt	-	Speed A 6.95 VDC
RA Damper Position	-	93%
Min OA Damper Position	-	7% 4.1 VAC
Min OA Damper Type	-	Motorized
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.58"
Fan Suction SP	-	-0.71"
Fan Discharge SP	-	0.44"
Total ESP	NA	1.02"
Fan Total SP	-	1.15"

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

Completed By: Cody Collett on 05/09/2025

Unit Data - PHOTO LOG

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National TAB

Project:05-05-25 CAVA DENVER, CO (STAPLETON)

AHU/RTU

Diffuser Supply (GRD)

RTU2/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	B	10X10"	340	0.562	211	257	331	97.4
SGRD2	KITCHEN	B	10X10"	340	0.562	410	476	373	109.7
SGRD3	KITCHEN	B	10X10"	340	0.562	205	249	328	96.5
SGRD4	KITCHEN	B	10X10"	340	0.562	370	350	372	109.4
SGRD5	KITCHEN	B	10X10"	400	0.562	306	390	423	105.8
SGRD6	KITCHEN	A	8"	200	1	244	273	207	103.5
SGRD7	KITCHEN	B	10X10"	400	0.562	224	256	393	98.3
SGRD8	KITCHEN	A	8"	200	1	372	388	204	102.0
SGRD9	KITCHEN	A	8"	200	1	225	239	218	109.0
SGRD10	KITCHEN	A	8"	200	1	269	274	217	108.5
SGRD11	KITCHEN	A	8"	200	1	273	292	219	109.5
SGRD12	KITCHEN	ACPSP	8"	844	4.55	764		769	91.1
Total				4004		3873	3444	4054	101.25%

Completed By: Cody Collett on 05/09/2025

National TAB

Project: 05-05-25 CAVA DENVER, CO (STAPLETON)

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	G-080-VG	G-080-VG
Serial Num	-	26725366
Type	DOWBLAST	DOWBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI GREEN
Frame	-	NL
Horsepower	.10	1/10
Motor Rpm	-	300-1750
Phase	1	1
Voltage (rated)	120	115/208-230/277
Amperage (rated)	-	1.3/0.84/0.73
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	200	186
Fan RPM	-	1137
Fan Rotation	-	CW
Motor RPM	-	1137
System SetPt	-	65%
RL Voltage	-	119
RL Amperage	-	0.58
Total ESP	.35	0.17"
Fan Inlet SP	-	-0.17"
Fan Discharge SP	-	ATM

Completed By: Cody Collett on 05/09/2025

Unit Data - PHOTO LOG

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National TAB

Project:05-05-25 CAVA DENVER, CO (STAPLETON)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF1/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EF1-EGRD1	BATHROOM R	G	8"	100	1	71	98	90	90.0
EF1-EGRD2	BATHROOM L	G	8"	100	1	97	138	96	96.0
Total				200		168	236	186	93%

Completed By: Cody Collett on 05/08/2025

National TAB

Project: 05-05-25 CAVA DENVER, CO (STAPLETON)

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	7327435
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	1	1
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	208	115
Amperage (rated)	-	11.6
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	2117	2140
Fan RPM	1479	1386
Fan Rotation	-	CCW
Motor RPM	-	1386
System SetPt	-	77%
RL Voltage	-	118
RL Amperage	-	9
Total ESP	1.0"	0.96"
Fan Inlet SP	-	-0.96"
Fan Discharge SP	-	ATM

Completed By: Cody Collett on 05/09/2025

Unit Data - PHOTO LOG

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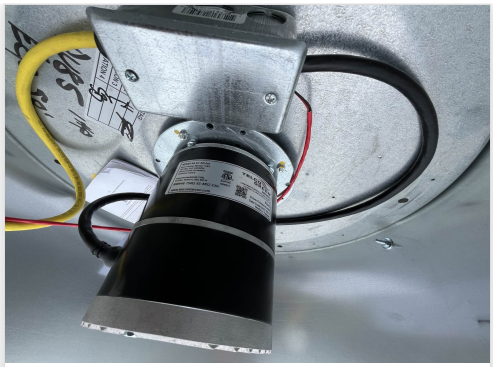

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National TAB

Project: 05-05-25 CAVA DENVER, CO (STAPLETON)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030 ND-2-ACPSP-F	6030 ND-2-ACPSP-F
Job / Serial Num	-	7327435
Type	TYPE I CANOPY	TYPE 1 CANOPY
Hood length	127"	127
Hood Width	60"	60”
Supply Plenum Type	-	ACPSP
Supply Plenum Width	12"	12”
Supply Plenum Length	140"	140”

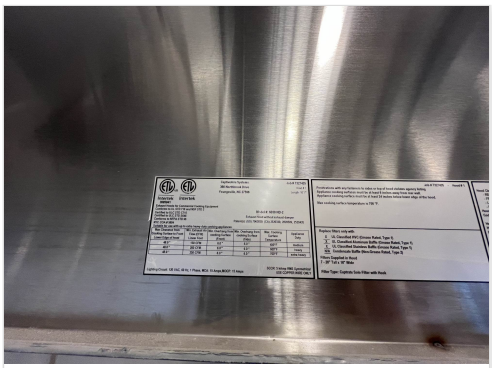
Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X20	16X20
Filter Qty 1	7	7
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	14.56	14.56
Filter1 FPM	-	148
Filter2 FPM	-	145
Filter3 FPM	-	151
Filter4 FPM	-	153
Filter5 FPM	-	150
Filter6 FPM	-	148
Filter7 FPM	-	135
Filter Ave FPM(corr)	-	147
CFM	2117	2140

Cooking Equipment	
	Actual
Item 1	OVEN
Item 2	RANGE
Item 3	GRIDDLE
Item 4	FRYER

Test Data Supply		
	Design	**Actual**
Total Area	-	11.66
Kv factor (Vel)	-	0.87
Num of Readings	-	8
Reading1 FPM	-	187
Reading2 FPM	-	135
Reading3 FPM	-	146
Reading4 FPM	-	159
Reading5 FPM	-	181
Reading6 FPM	-	134
Reading7 FPM	-	153
Reading8 FPM	-	182
Ave FPM(corr)	-	159
CFM	1694	1613

Completed By: Cody Collett on 05/09/2025

Unit Data - PHOTO LOG



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