Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 08/01/2024

PROJECT

06-17-24 CAVA YUKON, OK (10TH ST)

12701 NW 10th St

YUKON, OK 73099

Client

CAVA

702 H ST NW

2nd floor

Washington, DC 20001

National TAB

Project: 06-17-24 CAVA YUKON, OK (10TH ST)

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

- EF2
- EF2 - AIRFLOW
- RTU-1 KITCHEN DIFFUSERS
- RTU-2 DIFFUSERS

06-17-24 CAVA YUKON, OK (10TH ST)

Project Issue Information

Issue Name : EF2
Description : BACK DRAFT DAMPER IS NOT INSTALLED

Created By : National TAB
Assigned To : National TAB - Will Turnbough
Status : Open
Priority : Medium
Asset Tag :
Originated Date : 06/18/2024 - Kristopher Passley - National TAB

Project Issue File Details

06/18/2024

06-17-24 CAVA YUKON, OK (10TH ST)

Project Issue Information

Issue Name : EF2 - AIRFLOW

Description : FAN IS ON HIGH AIRFLOW, NO FAN SPEED CONTROLLER INSTALLED. RECOMMEND INSTALLED SPEED CONTROLLER TO BRING FAN INTO DESIGN.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

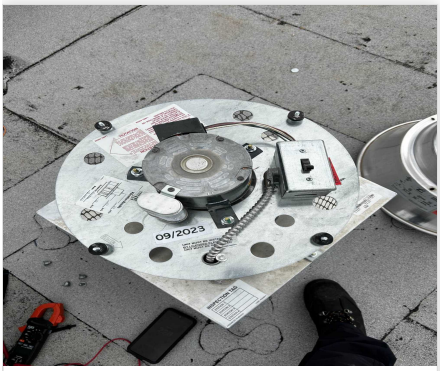
Status : Open

Priority : Urgent

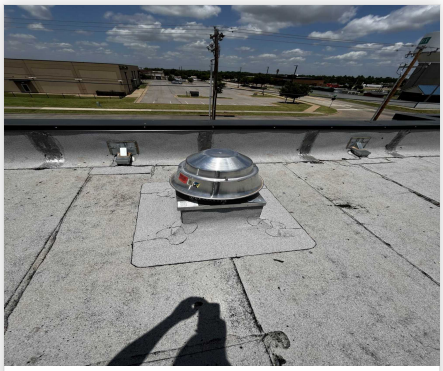
Asset Tag :

Originated Date : 06/19/2024 - Kristopher Passley - National TAB

Project Issue File Details



06/19/2024



06/19/2024

06-17-24 CAVA YUKON, OK (10TH ST)

Project Issue Information

Issue Name : RTU-1 KITCHEN DIFFUSERS

Description : KITCHEN DIFFUSERS 1-1,1-2,1-3 and 1-8 HAVE CLOSED DAMPERS THAT ARE INACCESSIBLE. NEED MECHANICAL TO OPEN OR CHECK FOR BLOCKAGE.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

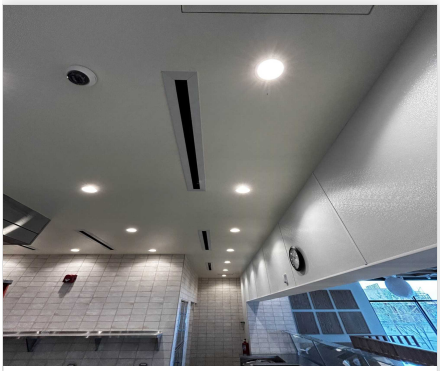
Status : Open

Priority : Urgent

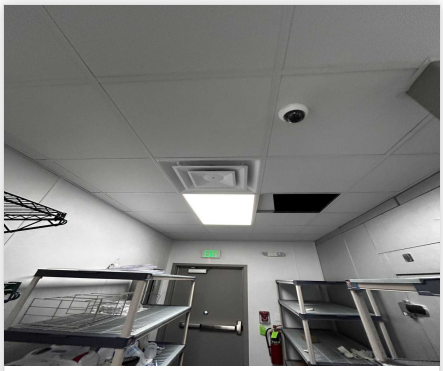
Asset Tag :

Originated Date : 06/20/2024 - Kristopher Passley - National TAB

Project Issue File Details



06/20/2024



06/20/2024

06-17-24 CAVA YUKON, OK (10TH ST)

Project Issue Information

Issue Name : RTU-2 DIFFUSERS

Description : RESTROOM AND HALLWAY DIFFUSERS 2-11, 2-12 and 2-14 HAVE CLOSED DAMPERS THAT ARE INACCESSIBLE. NEED MECHANICAL TO OPEN DAMPER OR CHECK FOR BLOCKAGE.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

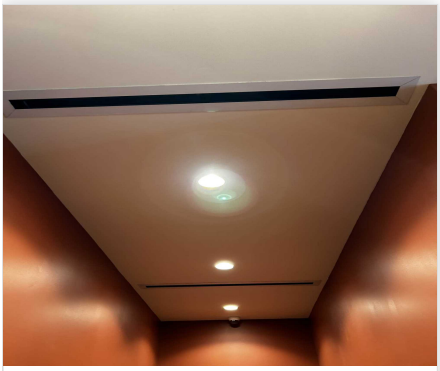
Status : Open

Priority : Urgent

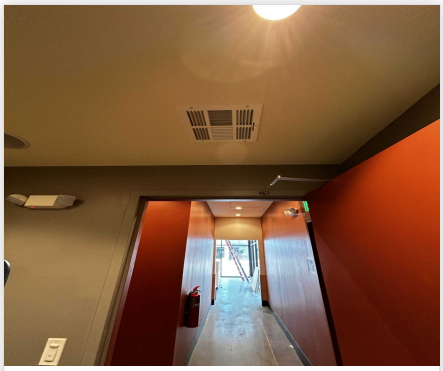
Asset Tag :

Originated Date : 06/20/2024 - Kristopher Passley - National TAB

Project Issue File Details



06/20/2024



06/20/2024

National TAB

Project: 06-17-24 CAVA YUKON, OK (10TH ST)

- Open BALANCE_SCHEDULE_CAVA_10ST.xlsx

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
- TECH - SITE PICTURES

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name :	FIV - EF'S	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/13/2024 - Brianna Biggs - National TAB		

CheckList Item Details

Unit Tag matches the design and submittal MFG and Model	Fail
Comment: KEF-1 MATCHES DESIGN EF2 DOES NOT MATCH SUBMITTAL MFG AND MODEL	
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:	

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name :	FIV - HVAC DUCTWORK	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/13/2024 - Brianna Biggs - 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	Pass
Comment:	
Grease duct has required clean-out doors installed, labeled, and accessible for removal/cleaning. Doors are located as required by code	Fail
Comment:	
Grease duct clean-out doors are secured using tool less fasteners and seal fully when hand tightened	Fail
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	Pass
Comment:	
Duct seams are sealed	Yes
Comment:	
Dampers are accessible to TAB team for balancing	Fail
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:	
Duct is secured to exhaust register	Pass
Comment:	
Gravity damper is installed, opens and closes freely, and is sealed to prevent air leakage	Fail
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	Fail

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	Fail

Comment:

RTU 1, DIFFUSER 1-8 HAS A FLEX DUCT WITH A LARGER THAN 90 DEGREE ELBOW.

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 :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/13/2024 - Brianna Biggs - 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)	Pass
Comment:	
OA hood & filters installed	Pass
Comment:	
Economizer wired to control board	Pass
Comment:	
Evaporator coil filters are properly installed with specified MERV rating	Pass
Comment:	
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	Pass
Comment:	
Condensate line drains away from unit to a approved roof drain	Pass
Comment:	
Belts are tight?	N/A
Comment:	
Pulleys aligned?	N/A
Comment:	
MERV rated filters are installed and are clean?	Pass
Comment:	

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name : FIV – HOODS **Status :** Not Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/13/2024 - Brianna Biggs - 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	
Comment:	
Kitchen Hoods are flush against the wall along the bottom and each of it's side walls.	Pass
Comment:	
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.	Pass

Comment:	
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:	
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	Fail
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.	
Comment:	

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name :	FIV – MUA	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/13/2024 - Brianna Biggs - 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	Pass

Comment:	
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	Pass
Comment:	
Condenser is installed away from any grease producing exhaust fans and located as per roof plan	Pass
Comment:	
Condenser's electrical disconnect is external to the unit and properly wired (if applicable)	Pass
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)	N/A
Comment:	
Gas line is installed per specification and properly supported	Pass
Comment:	
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:

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name :	FPT - BUILDING PRESSURE AND HOOD CONTAINMENT	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/13/2024 - Brianna Biggs - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

List smoke candle type used

Comment:

Smoke test capture - Perimeter of hood (%)

Comment:

Smoke test capture - Top of cooking surface (%)

Comment:

WITNESS

Date test was completed

Comment:

TAB tech name / Firm

Comment:

Site super name / Firm

Comment:

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)

Comment:

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name :	FPT - KEF'S	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/13/2024 - Brianna Biggs - National TAB		

CheckList Item Details

Exhaust fans wheel rotation is correct	Pass
Comment:	
TAB firm has balanced the exhaust fans to proper design levels	Fail
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:

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name : FPT - RTU's **Status :** Not Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/13/2024 - Brianna Biggs - 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%	Pass
Comment:	
Occupied Fan = On	Pass
Comment:	
Unoccupied Time = 12:00AM	Pass

Comment:	
Unoccupied Heat setpoint = 60	Pass
Comment:	
Occupied Cooling setpoint = 80	Pass
Comment:	
Unoccupied Fan = Auto	Pass
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	Pass
Comment:	
CONTROL WIRING VALIDATION	
Economizer Dry Bulb sensor wired	Pass
Comment:	
Economizer Dry Bulb sensor operational	Pass
Comment:	
OCP/OCC terminal wired correctly	Pass
Comment:	
Thermostat Wired correctly (R,C,Y1,Y2,W1,W2)	Pass
Comment:	
Humidity Sensor Wired correctly	Pass

Comment:

CALIBRATION & PROGRAMMING

RTU OA DB StPt, Reading Accuracy (+/- 2 degrees / 10 minute time to calibrate to actual reading)

Comment:

RTU MAT StPt, Reading Accuracy (+/- 2 degrees / 10 minute time to calibrate to actual reading)

Comment:

RTU MAT Low StPt

Comment:

RTU Low T Lockout

Comment:

Economizer set to 28 BTU/lb enthalpy setpoint. Pass

Comment:

Temperature tests

Outside air temperature / humidity

Comment:

Full cooling LAT/H

Comment:

Full heating LAT/H

Comment:

OUTDOOR AIR / RELIEF DAMPER

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

Comment:

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

Comment:

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

Comment:

OCCUPANCY VALIDATION

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

Comment:

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

Comment:

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

Comment:

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

Comment:

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name :	FPT – MUA	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/13/2024 - Brianna Biggs - 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?	Fail
Comment:	
Cooling is tested and is functional?	Yes
Comment:	

06-17-24 CAVA YUKON, OK (10TH ST)

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	06/13/2024 - Brianna Biggs - National TAB		

CheckList Item Details

STORE FRONT	Yes
Comment:	

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RTU-1	Yes
Comment:	

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RTU-2	Yes

Comment:

06/19/2024

06/19/2024

KEF-1	Yes

Comment:

06/19/2024

EF-2	Yes
Comment:	

06/19/2024

MUA-1	Yes
Comment:	

06/19/2024

HD-1	Yes

Comment:

06/19/2024

National TAB

Project: 06-17-24 CAVA YUKON, OK (10TH ST)

System/Unit: AHU/RTU

Asset: RTU1 AREA:

Unit Data		
	Design	**Actual**
MFG	TRANE	TRANE
Serial Num	-	240510523L
Model Num	YSJ102A3	YSJ102A3SAH04
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	23.875”X37.5”
Num Final Filter 1	-	3
Final Filter Size 1	-	16"X24"X2
Num Final Filter 2	-	2
Final Filter Size 2	-	18"X24"X2

Test Data		
	Design	**Actual**
SF CFM	3400	3422
RA CFM	3050	3062
OA CFM	350	360
RL Voltage	-	208/208/207
RL Amperage	-	3.9/3.9/3.8
SF Rotation	-	CCW
SF System SetPt	-	72%
RA Damper Position	-	94%
Min OA Damper Position	-	6%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28 BTU/lb

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPAPST
Frame	-	IP20
Horsepower	3	3
Motor Rpm	-	1790
Phase	3	3
Rated Voltage	208	200-240
Rated Amperage	-	8.8A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.73
Fan Suction SP	-	-1.15”
Fan Discharge SP	-	0.50”
Total ESP	1.0"	1.23”
Fan Total SP	-	1.65”

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

General	
	Actual
Fan Rotation Correct	CORRECT
Unit Filters Clean	CLEAN
Condensate Drain Installed	INSTALLED

Completed By: Kristopher Passley on 06/26/2024

National TAB

Project:06-17-24 CAVA YUKON, OK (10TH ST)

AHU/RTU

Diffuser Supply (GRD)

RTU1/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	L1	10"	300		0	0	0	0.0
SGRD2	KITCHEN	L1	10"	300		0	0	0	0.0
SGRD3	KITCHEN	L1	10"	300		0	0	0	0.0
SGRD4	KITCHEN	D1	10"	300		470	470	336	112.0
SGRD5	KITCHEN HOOD	ACPSP	139X6	774	4.51	1431	1015	1012	130.7
SGRD6	KITCHEN	L1	10"	260		532	581	736	283.1
SGRD7	KITCHEN	L1	10"	260		474	463	646	248.5
SGRD8	KITCHEN	D1	10"	300		0	0	0	0.0
SGRD9	KITCHEN	D1	10"	300		600	618	330	110.0
SGRD10	KITCHEN	D1	10"	300		504	513	362	120.7
Total				3394		4011	3660	3422	100.82%

National TAB

Project: 06-17-24 CAVA YUKON, OK (10TH ST)

System/Unit: AHU/RTU

Asset: RTU2 AREA:

Unit Data		
	Design	**Actual**
MFG	TRANE	TRANE
Serial Num	-	240610870L
Model Num	YSJ120A3	YSJ120A3SAMO4
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	23.875”X37.5”
Num Final Filter 1	-	3
Final Filter Size 1	-	16"X24"X2"
Num Final Filter 2	-	2
Final Filter Size 2	-	18"X24"X2”

Test Data		
	Design	**Actual**
SF CFM	4000	4250
RA CFM	3350	3572
OA CFM	650	678
RL Voltage	-	209/208/208
RL Amperage	-	4.1/4.3/4.1
SF Rotation	-	CWW
SF System SetPt	-	75%
RA Damper Position	-	77%
Min OA Damper Position	-	23%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28 BTU/lb

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPAPST
Frame	-	IP20
Horsepower	3	3
Motor Rpm	-	1790
Phase	3	3
Rated Voltage	208	200-240
Rated Amperage	-	8.8

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.73”
Fan Suction SP	-	-1.11”
Fan Discharge SP	-	0.49”
Total ESP	1.0"	1.22”
Fan Total SP	-	1.6”

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

General	
	Actual
Fan Rotation Correct	CORRECT
Unit Filters Clean	CLEAN
Condensate Drain Installed	INSTALLED

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National TAB

Project:06-17-24 CAVA YUKON, OK (10TH ST)

AHU/RTU

Diffuser Supply (GRD)

RTU2/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	R1	20X6	365		480		381	104.4
SGRD2	DINING	R1	20X6	365		483		375	102.7
SGRD3	DINING	R1	20X6	365		528		417	114.2
SGRD4	DINING	R1	20X6	365		460		363	99.5
SGRD5	DINING	R1	20X6	365		496		392	107.4
SGRD6	DINING	R1	20X6	365		511		404	110.7
SGRD7	DINING	R1	20X6	365		487		385	105.5
SGRD8	DINING	R1	20X6	365		495		420	115.1
SGRD9	DINING	R1	20X6	365		504		398	109.0
SGRD10	DINING	R1	20X6	365		529		481	131.8
SGRD11	HALLWAY	L1	8"	125		0		0	0.0
SGRD12	HALLWAY	L1	8"	125		0		0	0.0
SGRD13	RESTROOM	D2	6"	50		237		234	468.0
SGRD14	RESTROOM	D2	6"	50		0		0	0.0
Total				4000		5210	0	4250	106.25%

National TAB

Project: 06-17-24 CAVA YUKON, OK (10TH ST)

System/Unit: FAN - Exhaust

Asset: EF2 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	PENNBARRY
Model Num	G-080-VG	DX10R
Serial Num	-	J23YZ04002
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	FASCO
Horsepower	0.03	.1667
Motor Rpm	-	1550
Phase	1	1
Voltage (rated)	120	115/200-240
Amperage (rated)	-	1.8/.9

Test Data		
	Design	**Actual**
CFM	250	489
Fan RPM	-	
Fan Rotation	-	CCW
Motor RPM	-	
System SetPt	-	
RL Voltage	-	121
RL Amperage	-	1.0
Total ESP	0.3"	0.2343”
Fan Inlet SP	-	-0.234”
Fan Discharge SP	-	ATM

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National TAB

Project:06-17-24 CAVA YUKON, OK (10TH ST)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF2/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	RESTROOM	G2	8"	125		237		237	189.6
EGRD2	RESTROOM	G2	8"	125		252		252	201.6
Total				250		489	0	489	195.6%

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National TAB

Project: 06-17-24 CAVA YUKON, OK (10TH ST)

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:KITCHEN HOOD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	5777460
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

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

Test Data		
	Design	**Actual**
CFM	2381	2413
Fan RPM	1567	
Fan Rotation	-	CCW
Motor RPM	-	
System SetPt	-	66%
RL Voltage	-	119
RL Amperage	-	5.6
Total ESP	1.0"	0.45
Fan Inlet SP	-	-0.45”
Fan Discharge SP	-	ATM

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National TAB

Project: 06-17-24 CAVA YUKON, OK (10TH ST)

System/Unit: FAN - Supply

Asset: MUA1 AREA:COOKLINE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1-D.250-15D-MPU	A1-D.250-15D-MPU
Serial Num	-	5777460
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	2	3/2.2
Motor Rpm	-	3480
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	7.64/3.82
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	N
Flame Status (pass/fail)	-	FAIL
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60
Air Flow Switch SP Actual	-	.45

Test Data		
	Design	**Actual**
CFM	1965	2046
SF System SetPt	-	34.8 Hz
RL Voltage	-	130 VFD
RL Amperage	-	5.9 VFD
Total ESP	-	0.50"
Fan Discharge SP	-	0.50”

General	
	Actual
Fan Rotation Correct	CORRECT

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National TAB

Project: 06-17-24 CAVA YUKON, OK (10TH ST)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:

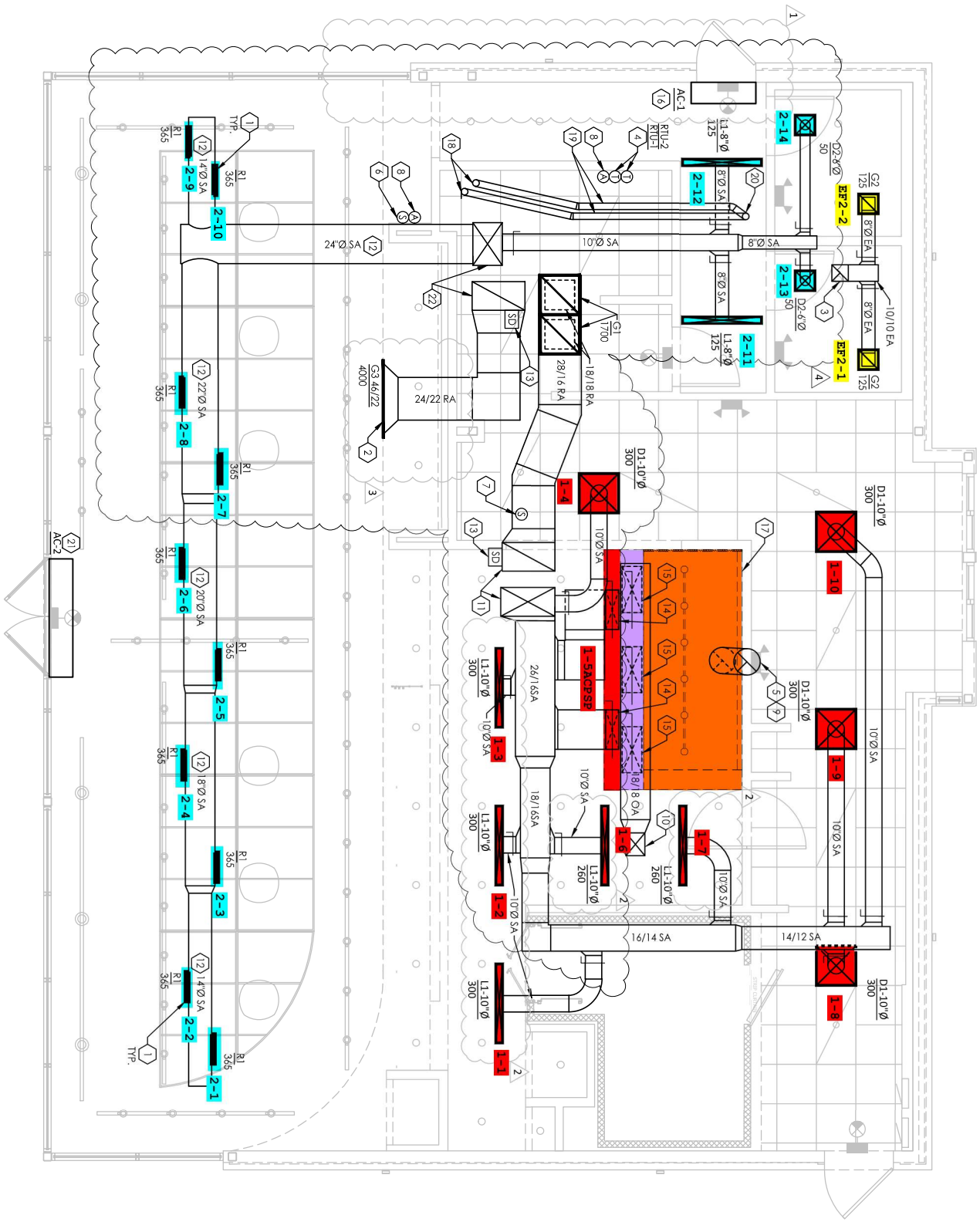
Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030 ND-2-ACPSP-F	6030 ND-2-ACPSP-F
Job / Serial Num	-	5777460
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	123"	127"
Hood Width	60"	60"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	146"	139"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPSTRATE SOLO
Filter Size 1	16X20	16"X20"
Filter Qty 1	8	7
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	16.64	14.56
Filter1 FPM	-	158
Filter2 FPM	-	162
Filter3 FPM	-	168
Filter4 FPM	-	178
Filter5 FPM	-	172
Filter6 FPM	-	161
Filter7 FPM	-	161
Filter Ave FPM(corr)	-	165.7
CFM	2381	2413

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	GAS STOVE
Item 3	PLANCHA
Item 4	OVEN

Test Data Supply		
	Design	**Actual**
Total AK Area	14.19	13.51
Kv factor (Vel)	0.89	0.89
Num of Readings	-	10
Reading1 FPM	-	177
Reading2 FPM	-	142
Reading3 FPM	-	145
Reading4 FPM	-	173
Reading5 FPM	-	153
Reading6 FPM	-	137
Reading7 FPM	-	197
Reading8 FPM	-	189
Reading9 FPM	-	185
Reading10 FPM	-	203
Ave FPM(corr)	-	170.1
CFM	1965	2045

Completed By: Kristopher Passley on 06/26/2024


1
MECHANICAL PLAN
1/4" = 1'-0"
AC-1
RTU-2
RTU-1
L1-8"Ø 125
2-14
D2-8Ø 50
G2 125
EF2-2
8"Ø EA
2-12
8"Ø SA
20
10"Ø SA
8"Ø SA
2-13
D2-6"Ø 50
10/10 EA
EF2-1
2-11
24"Ø SA
22
SD
G1 1700
28/16 RA
18/18 RA
G3 46/22 4000
24/22 RA
D1-10"Ø 300
1-4
1-10
1-9
1-5ACPS2
1-3
1-6
1-7
1-2
1-1
1-8
26/16SA
18/16SA
18/18 OA
L1-10"Ø 300
L1-10"Ø 260
16/14 SA
14/12 SA
2-9
2-10
2-8
2-7
2-6
2-5
2-4
2-3
2-2
2-1
14"Ø SA
27"Ø SA
20"Ø SA
18"Ø SA
R1 365
TYP.
AC-2