Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 09/16/2025

Completed By: National TAB

PROJECT

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

1834 Cumberland Avenue

KNOXVILLE, TN

Client

CAVA

702 H ST NW

2nd floor

Washington, DC 20001

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

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 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.

AHU's w/ Diffusers
Each of the AHU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each AHU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. If provided with outside air, the flow was measured via traverse. 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.

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

- AHU 2 dampers inaccessible
- AHU 2 supply diffuser added
- AHU’s inaccessible
- Existing AHU 1 low flow
- Mechanical damper ACPSP
- No OA duct installed for units
- THERMOSTAT 3 TIME ADJUSTMENT

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

Project Issue Information

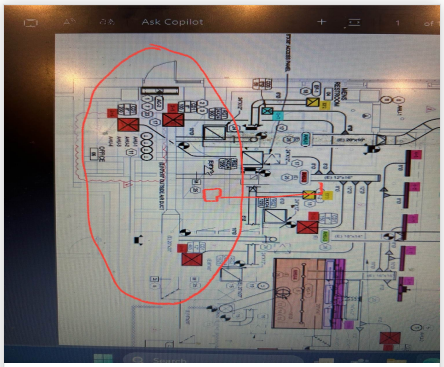
Issue Name : AHU 2 dampers inaccessible

Description : AHU 2 dampers are above hard ceiling for the back 4 supply diffusers. unable to balance proportionately.

Created By :	National TAB	**Assigned To :**	National TAB - Brianna Biggs
Status :	Open		
Priority :	InfoOnly	**Asset Tag :**	AHU2
Originated Date :	09/16/2025 - Jearod Ferrette - National TAB		

Project Issue File Details

09/16/2025



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Project Issue Information

Issue Name : AHU 2 supply diffuser added

Description : AHU 2 has an extra supply diffuser in the kitchen that is not on the current drawings. Diffuser will be balanced proportionately.

Created By : National TAB

Assigned To : National TAB - Brianna Biggs

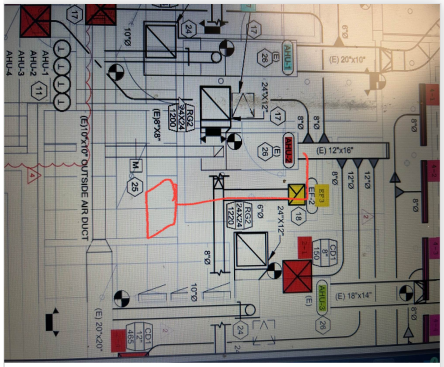
Status : Open

Priority : InfoOnly

Asset Tag :

Originated Date : 09/16/2025 - Jearod Ferrette - National TAB

Project Issue File Details



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09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

Project Issue Information

Issue Name : AHU's inaccessible
Description : Existing units above hard ceiling inaccessible.

Created By : National TAB
Assigned To : National TAB - Brianna Biggs
Status : Open
Priority : InfoOnly
Asset Tag : HVAC EQUIPMENT1
Originated Date : 09/16/2025 - Jearod Ferrette - National TAB

Project Issue File Details

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Project Issue Information

Issue Name :	Existing AHU 1 low flow		
Description :	Existing unit currently at 75% of design. Diffusers will be balanced proportionally. Area is cool and comfortable.		
Created By :	National TAB	**Assigned To :**	National TAB - Brianna Biggs
Status :	Open		
Priority :	InfoOnly	**Asset Tag :**	AHU1
Originated Date :	09/16/2025 - Jearod Ferrette - National TAB		

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

Project Issue Information

Issue Name :	Mechanical damper ACPSP		
Description :	ACPSP has mechanical dampers, they auto adjust flow.		
Created By :	National TAB	**Assigned To :**	National TAB - Brianna Biggs
Status :	Open		
Priority :	InfoOnly	**Asset Tag :**	AHU4
Originated Date :	09/16/2025 - Jearod Ferrette - National TAB		

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

Project Issue Information

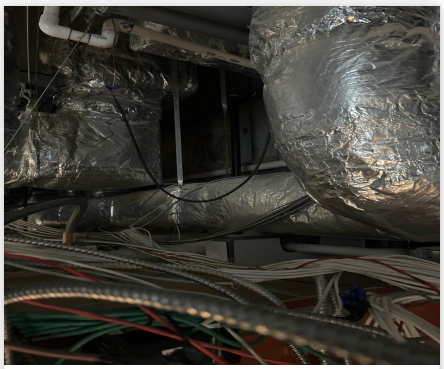
Issue Name : No OA duct installed for units

Description : AHUs don’t have an OA installed. There is a main duct that is tapped into all the units to get outside air, with 1 mechanical damper for the duct. PER MSET (M100 section 6)

Created By :	National TAB	**Assigned To :**	National TAB - Brianna Biggs
Status :	Open		
Priority :	InfoOnly	**Asset Tag :**	HVAC EQUIPMENT1
Originated Date :	09/16/2025 - Jearod Ferrette - National TAB		

Project Issue File Details

09/16/2025



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Project Issue Information

Issue Name :	THERMOSTAT 3 TIME ADJUSTMENT		
Description :	T-stat #3 in the office time is an hour ahead. The settings are locked out and not able to adjust.		
Created By :	National TAB	**Assigned To :**	National TAB - Brianna Biggs
Status :	Open		
Priority :	Low	**Asset Tag :**	HVAC EQUIPMENT1
Originated Date :	09/16/2025 - Jearod Ferrette - 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
AHU-1	DINING	1200	941	900	641	300	300	25.0%	31.9%						
AHU-2	KITCHEN	1250	1180	1200	1130	50	50	4.0%	4.2%						
AHU-3	DINING	1600	1473	1220	1093	380	380	23.8%	25.8%						
AHU-4	KITCHEN	1535	1676	1485	1626	50	50	3.3%	3.0%						
MUA-1	KITCHEN HD									1735	1692				
EF-1	KITCHEN HD											2317	2213		
EF-2	RESTROOM													75	76
EF-3	RESTROOM													75	74
TOTALS		5585	5270	4805	4490	780	780			1735	1692	2317	2213	150	150

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2515	2472
TOTAL EXHAUST	2467	2363
NET AIRFLOW	48	109

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.008
SIDE	-0.002
REAR	0.
AVERAGE	**0.002**

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

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

CheckList Information

Name :	FIV - EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/16/2025 - Jearod Ferrette - National TAB		

CheckList Item Details

Unit Tag matches the design and submittal MFG and Model	N/A
Comment: UNITS INACCESSIBLE ABOVE HARD CEILING	
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)	N/A
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	N/A

Comment:

Exhaust fan doesn’t hinge

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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)	N/A

Comment:

Exhaust fan do Hinge

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Grease cups are properly installed and connected to the fan base grease drain to prevent spilling outside of the grease cup	N/A

Comment:

Grease cup not installed on the exhaust fan.

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 - HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/15/2025 - Jearod Ferrette - 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.	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	
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 - HVAC DUCTWORK	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/16/2025 - Jearod Ferrette - 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	Pass
Comment:	
Grease duct clean-out doors are secured using tool less fasteners and seal fully when hand tightened	Pass
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	N/A

Comment:

MECHANICAL DAMPERS INSTALLED, DAMPERS AUTO ADJUST

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	N/A
Comment:	
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	N/A
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 - MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/16/2025 - Jearod Ferrette - National TAB		

CheckList Item Details

MUA Tag information matches design and submittal criteria	N/A
Comment: INACCESSIBLE ABOVE HARD CEILING	
MUA Fan has a permanent tag for identification located on the unit located and sized for visual ease	Fail
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	N/A
Comment: INACCESSIBLE ABOVE HARD CEILING	

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)	N/A
Comment:	

Condenser hail guards are installed (if applicable)	N/A
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	N/A

Comment:

UNIT INACCESSIBLE ABOVE HARD CEILING

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CheckList Information

Name :	FIV - RTU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/16/2025 - Jearod Ferrette - 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	N/A
Comment: UNITS INACCESSIBLE ABOVE HARD CEILING	
Identify and ensure the RTU label information and size is correct	N/A
Comment: UNITS INACCESSIBLE ABOVE HARD CEILING	
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	N/A
Comment: UNITS INACCESSIBLE ABOVE HARD CEILING	

RTU - INSTALLATION DETAILS

With disconnect switch "off" spin the indoor and outdoor fan wheel's by hand and ensure they spin freely	N/A
Comment: UNITS INACCESSIBLE ABOVE HARD CEILING	
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	N/A
Comment: UNITS INACCESSIBLE ABOVE HARD CEILING	
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:	
OA hood & filters installed	Fail
Comment: NO OA INSTALLED, UNITS ARE TAPPED INTO 1 MAIN DUCTWORK TO GET OUTSIDE AIR	
Economizer wired to control board	N/A
Comment: UNITS INACCESSIBLE ABOVE HARD CEILING	
Evaporator coil filters are properly installed with specified MERV rating	N/A
Comment:	
Economizer damper is installed properly	N/A

Comment:

Economizer OA temperature / enthalpy sensors installed and wired	N/A

Comment:

OA not tied in traditionally, see remarks

Thermostat and humidity (if applicable) control wires wired to RTU terminals	N/A

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:

UNITS INACCESSIBLE ABOVE HARD CEILING

Pulleys aligned?	N/A

Comment:

MERV rated filters are installed and are clean?	N/A

Comment:

UNITS INACCESSIBLE ABOVE HARD CEILING

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

CheckList Information

Name :	FPT - BUILDING PRESSURE AND HOOD CONTAINMENT	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/16/2025 - Jearod Ferrette - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

oven, fire grill, stove, fryer

List smoke candle type used

Comment:

smoke candle

Smoke test capture - Perimeter of hood (%)

Comment:

100%

Smoke test capture - Top of cooking surface (%)

Comment:

100%

WITNESS

Date test was completed	09/16/2025

Comment:

TAB tech name / Firm

Comment:

Jearod Ferrette/ NTAB

Site super name / Firm

Comment:

Brandon Smith

Owner representative name / Firm (if Applicable)

Comment:

NA

BUILDING PRESSURE

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)

Comment:

FRONT 0.008, SIDE -0.002, BUILDING ATTACHED

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

CheckList Information

Name :	FPT - KEF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/15/2025 - Jearod Ferrette - 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 - MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/15/2025 - Jearod Ferrette - 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:

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

CheckList Information

Name :	FPT - RTU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Trinity Dodds - National TAB		
Completed Date :	09/16/2025 - Jearod Ferrette - National TAB		

CheckList Item Details

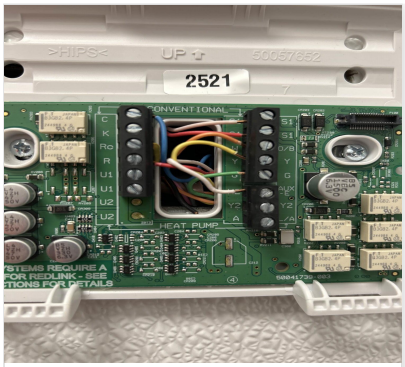
THERMOSTAT PROGRAMMING AND CALIBRATION

Time is correct on the thermostats	Fail
Comment: T-stat 3 off by 1 hour. Can not change time.	
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: NO DEHUMIDICATION ON UNIT	
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: RTU 1 THERMOSTAT: 72F/ TEMP SENSOR: 72.4 RTU 2 THERMOSTAT: 72F/ TEMP SENSOR: 73.1 RTU 3 THERMOSTAT: 71F/ TEMP SENSOR: 72.3 RTU 4 THERMOSTAT: 72F/ TEMP SENSOR: 72.4	
Actual measured RH is within +/-3 % of displayed RH at RTU or thermostat. If not calibrate the sensor	N/A
Comment: HUMIDITY SENSORS ARE NOT INSTALLED AT THIS LOCATION	
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)	N/A

Comment:

Existing units, Y2 not used



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Humidity Sensor Wired correctly	N/A
Comment:	

CALIBRATION & PROGRAMMING

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

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

RTU MAT Low StPt

Comment:

NA

RTU Low T Lockout

Comment:

Economizer set to 28 BTU/lb enthalpy setpoint.	N/A
Comment:	

Temperature tests

Outside air temperature / humidity	
Comment: 81.1F/ 50.4	
Full cooling LAT/H	
Comment: RTU 1 LAT: 58/ 60H RTU 2 LAT: 55/ 60H RTU 3 LAT: 56/ 64H RTU 4 LAT: 55/ 72H	
Full heating LAT/H	
Comment: COULD NOT BE TESTED DUE TO OUTSIDE AIR TEMP ABOVE 80F	
OUTDOOR AIR / RELIEF DAMPER	
If power exhaust installed, set point is higher than the OA damper setpoint	N/A
Comment:	
If power exhaust installed, open the OA damper above the power exhaust setpoint and ensure that the power exhaust turns on	N/A
Comment:	
If relief damper is installed, ensure that it is installed properly and can open freely.	N/A
Comment:	
OCCUPANCY VALIDATION	
Place the thermostat in "unoccupied" - Does the OA damper close fully	N/A
Comment: OPTION NOT AVAILABE	
Stage cooling and Heating in "unoccupied" - Does the unit properly stage and does the OA damper remain closed	N/A
Comment: OPTION NOT AVAILABE	
Place the thermostat in "Occupied" - Does the OA damper open to the TAB preset minimum position in High speed	Pass
Comment: PER MECHANICAL THE DAMPER ON TRUCK THAT SERVICES THE OA, OPENS AND CLOSES WITH OUTSIDE TEMP.	

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

Comment:

AHU's RUN IN HIGH SPEED AT ALL TIMES

09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

CheckList Information

Name :	PLAN REVIEW	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/11/2025 - Brianna Biggs - National TAB		
Completed Date :	09/11/2025 - Trinity Dodds - National TAB		

CheckList Item Details

Asset Requirements

We have the latest set of construction drawings and are not working off the Bid or Permit Set:	Yes
Comment:	

Diffuser totals equal the scheduled airflow of each piece of equipment	No
Comment:	

(-50) AHU1 – DESIGN: 1200 DIFFUSER TOTAL:1250 (-15) AHU2 – DESIGN:1250 DIFFUSER TOTAL:1265 (140) AHU4 – DESIGN:1675 DIFFUSER TOTAL:1535

Scheduled Hood airflow match scheduled EF and MAU airflows	N/A
Comment:	

Files to Upload

A PDF summary is uploaded and matches the equipment/scope of the project	Yes
Comment:	

Balance schedule is uploaded?	Yes
Comment:	

Required account checklists are created	Yes

Comment:	
Mechanical drawings are uploaded	Yes
Comment:	
If job is a Revive, Pre-design, or Remodel. Check if we have an old report on sharepoint or the old FaciliBuild and upload to files section.	No
Comment:	
GRD Layout is uploaded	Yes
Comment:	
Jurisdiction Requirements	
Is job in Orlando, FL metro area or Phoenix metro area? If yes, a smoke detector checklist needs to be created for each RTU or AHU	No
Comment:	
Is job in Broward County, FL? If so, is Broward County on the permit (Ask the GC)? If Broward County is on the permit, then we CANNOT perform the balance.	No
Comment:	

Notes/Comments :

The EFs are labelled wrong on the construction pages.

Date :09/11/2025

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: AHU/RTU

Asset: AHU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	BRYANT	BRYANT
Model Num	FX4DNF-037	FX4DNF-037
Type	AHU	AHU
Configuration	HORIZONTAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	NA
Num Final Filter 1	-	NA
Final Filter Size 1	-	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	1	1
Rated Voltage	208	208
Rated Amperage	-	NA

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

Test Data		
	Design	**Actual**
SF CFM	1200	941
SF RPM	-	NA
RA CFM	900	641
OA CFM	300	300
RL Voltage	-	NA
RL Amperage	-	NA
SF Rotation	-	NA
SF System SetPt	-	HIGH COOLING
RA Damper Position	-	100%
Min OA Damper Position	-	NA
Min OA Damper Type	-	Mechanical
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	0.80"	NA
Fan Total SP	-	NA

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

Completed By: Jearod Ferrette on 09/16/2025

Diffuser Supply (GRD)

AHU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	SG1	12X6	200	0.38	145	160	149	74.5
SGRD2	DINING	SG1	12X6	200	0.38	162	169	155	77.5
SGRD3	DINING	SG1	12X6	200	0.38	140	127	149	74.5
SGRD4	DINING	SG1	12X6	200	0.38	148	141	149	74.5
SGRD5	DINING	SG1	12X6	200	0.38	173	179	150	75.0
SGRD6	DINING	SG1	12X6	200	0.38	132	135	149	74.5
SGRD7	RESTROOM 110	CD3	6"	50	1	38	40	40	80.0
Total				1250		938	951	941	75.28%

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: AHU/RTU

Asset: AHU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	BRYANT	BRYANT
Model Num	FX4D-037	FX4D-037
Type	AHU	AHU
Configuration	HORIZONTAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	NA
Num Final Filter 1	-	NA
Final Filter Size 1	-	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	1	1
Rated Voltage	208	208
Rated Amperage	-	NA

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

Test Data		
	Design	**Actual**
SF CFM	1250	1180
SF RPM	-	NA
RA CFM	1200	1130
OA CFM	50	50
RL Voltage	-	NA
RL Amperage	-	NA
SF Rotation	-	NA
SF System SetPt	-	HIGH COOL
RA Damper Position	-	100%
Min OA Damper Position	-	NA
Min OA Damper Type	-	Mechanical
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	0.80"	NA
Fan Total SP	-	NA

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

Completed By: Jearod Ferrette on 09/16/2025

Diffuser Supply (GRD)

AHU2/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	CD1	8"	150	1	87	150	173	115.3
SGRD2	KITCHEN	CD2	8"	200	1	130	170	149	74.5
SGRD3	KITCHEN	CD2	8"	150	1	154	123	120	80.0
SGRD4	BACK KITCHEN	CD1	12"	465	1	241	295	243	52.3
SGRD5	BACK KITCHEN	CD1	8"	100	1	160	120	168	168.0
SGRD6	OFFICE	CD1	8"	200	1	192	180	196	98.0
SGRD7	BACK KITCHEN	CD1	8"		1	127	139	131	-
Total				1265		1091	1177	1180	93.28%

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: AHU/RTU

Asset: AHU3 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	BRYANT	BRYANT
Serial Num	-	NA
Model Num	FX4D-049	FX4D-049
Type	AHU	AHU
Configuration	HORIZONTAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	NA
Num Final Filter 1	-	NA
Final Filter Size 1	-	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	1	1
Rated Voltage	208	208
Rated Amperage	-	NA

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

Test Data		
	Design	**Actual**
SF CFM	1600	1473
SF RPM	-	NA
RA CFM	1220	1093
OA CFM	380	380
RL Voltage	-	NA
RL Amperage	-	NA
SF Rotation	-	NA
SF System SetPt	-	HIGH COOL
RA Damper Position	-	100%
Min OA Damper Position	-	NA
Min OA Damper Type	-	Mechanical
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	0.80"	NA
Fan Total SP	-	NA

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

Completed By: Jearod Ferrette on 09/16/2025

Diffuser Supply (GRD)

AHU3/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	SG1	18X6	300	0.59	297	280	277	92.3
SGRD2	DINING	SG1	18X6	300	0.59	282	289	282	94.0
SGRD3	DINING	SG1	18X6	300	0.59	300	278	277	92.3
SGRD4	DINING	SG1	18X6	300	0.59	265	255	275	91.7
SGRD5	DINING	CD2	8"	200	1	95	140	180	90.0
SGRD6	DINING	SG1	18X6	200	0.59	246	232	182	91.0
Total				1600		1485	1474	1473	92.06%

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: AHU/RTU

Asset: AHU4 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	BRYANT	BRYANT
Serial Num	-	NA
Model Num	FX4D-049	FX4D-049
Type	AHU	AHU
Configuration	HORIZONTAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	NA
Num Final Filter 1	-	NA
Final Filter Size 1	-	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	1	1
Rated Voltage	208	208
Rated Amperage	-	NA

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

Test Data		
	Design	**Actual**
SF CFM	1535	1676
SF RPM	-	NA
RA CFM	1485	1626
OA CFM	50	50
RL Voltage	-	NA
RL Amperage	-	NA
SF Rotation	-	NA
SF System SetPt	-	HIGH COOL
RA Damper Position	-	100%
Min OA Damper Position	-	NA
Min OA Damper Type	-	Mechanical
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	0.80"	NA
Fan Total SP	-	NA

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

Completed By: Jearod Ferrette on 09/16/2025

National TAB

Project:09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

AHU/RTU

Diffuser Supply (GRD)

AHU4/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	SD1	48"	135	0.63	231	214	144	106.7
SGRD2	KITCHEN	SD1	48"	135	0.63	154	146	156	115.6
SGRD3	KITCHEN	SD1	48"	135	0.63	229	213	146	108.1
SGRD4	KITCHEN	SD1	48"	135	0.63	216	211	145	107.4
SGRD5	KITCHEN	SD1	48"	135	0.63	209	223	147	108.9
SGRD6	KITCHEN HD	ACPSP	139X12	860	4.51	667	667	938	109.1
Total				1535		1706	1674	1676	109.19%

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: FAN - Exhaust

Asset: EF1 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	USBI18DD-RM	USBI18DD-RM
Serial Num	-	7244619
Type	UTILITY	UTILITY
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	3.0	3.0
Motor Rpm	-	NA
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	NA
Service Factor	-	NA

Test Data		
	Design	**Actual**
CFM	2317	2213
Fan RPM	-	DD/ 54.2HZ
Fan Rotation	-	CCW
Motor RPM	-	DD/ 54.2
System SetPt	-	54.2HZ
RL Voltage	-	168VFD
RL Amperage	-	8.3
Total ESP	2.5"	2.67"
Fan Inlet SP	-	2.67"
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 09/16/2025

Unit Data - PHOTO LOG

09/16/2025

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: FAN - Exhaust

Asset: EF2 AREA:RESTROOM 110

Unit Data		
	Design	**Actual**
MFG	LOREN COOK	LOREN COOK
Model Num	GC-148	GC-148
Serial Num	-	NA
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	1150
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.40
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	75	76
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	HIGH
RL Voltage	-	119
RL Amperage	-	0.3
Total ESP	0.30"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 09/16/2025

Unit Data - PHOTO LOG

09/16/2025

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: FAN - Exhaust

Asset: EF3 AREA:RESTROOM 111

Unit Data		
	Design	**Actual**
MFG	LOREN COOK	LOREN COOK
Model Num	GC-148	GC-148
Serial Num	-	NA
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	1550
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.40
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	75	74
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	HIGH
RL Voltage	-	119
RL Amperage	-	0.3
Total ESP	0.30"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 09/16/2025

Unit Data - PHOTO LOG

09/16/2025

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: FAN - Supply

Asset: MAU1 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1-D.250G10	A1-D.250G10
Serial Num	-	7244619
Type	MAU	MAU
Configuration	HORIZONTAL	HORIZONTAL

Motor Data		
	Design	**Actual**
Motor MFG	-	WEG
Frame	-	56H
Horsepower	-	1.5
Motor Rpm	-	1760
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	4.2
Service Factor	-	1.15

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

Test Data		
	Design	**Actual**
CFM	1735	1692
SF RPM	-	NA
Motor RPM	-	NA
SF System SetPt	-	NA
RL Voltage	-	NA
RL Amperage	-	NA
Fan Discharge SP	-	ATMO

General	
	Actual
Fan Rotation Correct	CW

Completed By: Jearod Ferrette on 09/16/2025

Unit Data - PHOTO LOG

09/15/2025

National TAB

Project: 09-15-25 CAVA KNOXVILLE, TN (CUMBERLAND AVE)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-ACPSP-F	6030ND-2-ACPSP-F
Job / Serial Num	-	7244619
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	139"	139"
Hood Width	57"	57"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	12"	12"
Supply Plenum Length	139"	139"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X20	16X20
Filter Qty 1	8	8
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	16.64	16.64
Filter1 FPM	-	119
Filter2 FPM	-	128
Filter3 FPM	-	145
Filter4 FPM	-	144
Filter5 FPM	-	148
Filter6 FPM	-	142
Filter7 FPM	-	121
Filter8 FPM	-	114
Filter Ave FPM(corr)	-	133
CFM	2317	2213

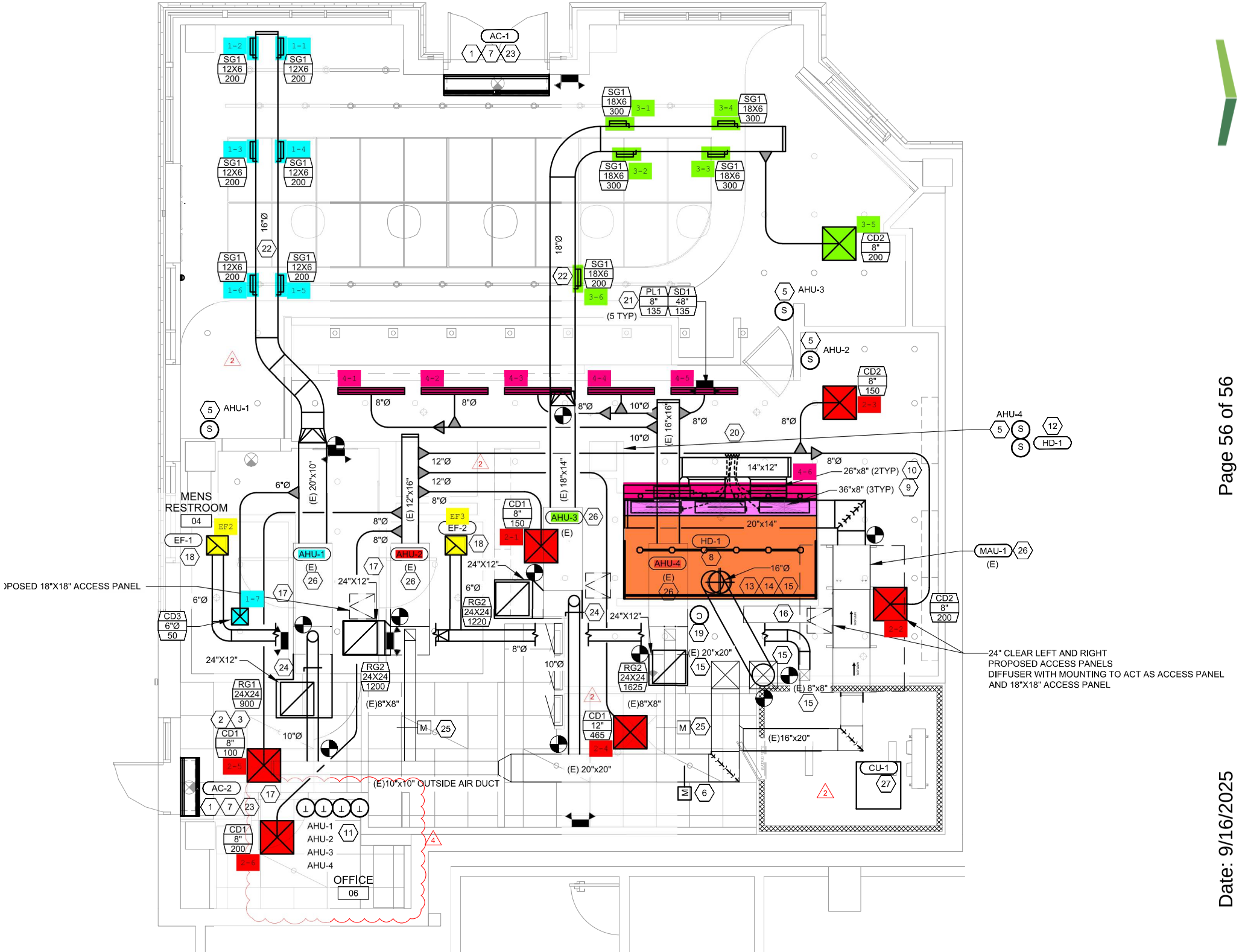
Cooking Equipment	
	Actual
Item 1	OVEN
Item 2	FIRE GRILL
Item 3	STOVE
Item 4	FRYER

Test Data Supply		
	Design	**Actual**
Total Area	11.58	11.58
Kv factor (Vel)	0.87	0.87
Num of Readings	-	8
Reading1 FPM	-	131
Reading2 FPM	-	132
Reading3 FPM	-	141
Reading4 FPM	-	159
Reading5 FPM	-	181
Reading6 FPM	-	190
Reading7 FPM	-	198
Reading8 FPM	-	209
Ave FPM(corr)	-	168
CFM	1735	1692

Completed By: Jearod Ferrette on 09/15/2025

Unit Data - PHOTO LOG

09/15/2025



Date: 9/16/2025