Report By:

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

Report: TAB

Function: Test, Adjust, & Balance

Date: 02/14/2025

Completed By: National TAB

PROJECT

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

1560 St Georges Avnue

AVENEL, NJ 07001

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

National TAB

Project: 02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

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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

- EF1: Flexible grease spout kinked in viroguard
- RTU1-1: No damper on this diffuser
- RTU1: Overamping blower motor
- RTU2-6: Damper is jammed.
- RTUs: Economizers on both RTUs do not function

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

Project Issue Information

Issue Name : EF1: Flexible grease spout kinked in viroguard

Description : Viroguard is sitting on and blocking flow through a flexible grease spout out of EF1. Install hard spout or modify Viroguard according to manufacturer guidance.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

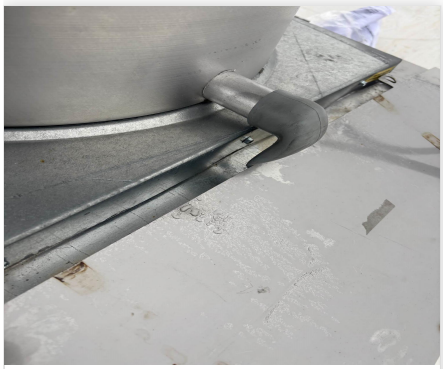
Status : Open

Priority : Low

Asset Tag :

Originated Date : 02/13/2025 - Ryan Smith - National TAB

Project Issue File Details



02/13/2025

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

Project Issue Information

Issue Name : RTU1-1: No damper on this diffuser

Description : Diffuser 1 on RTU1 does not have an accessible damper installed at the face or the diffuser.

Created By :	National TAB	**Assigned To :**	National TAB - Will Turnbough
Status :	Open		
Priority :	High	**Asset Tag :**	
Originated Date :	02/14/2025 - Ryan Smith - National TAB		

Project Issue File Details

02/14/2025

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

Project Issue Information

Issue Name :	RTU1: Overamping blower motor		
Description :	Unit is unable to reach design total airflow (4000CFM) and had to be proportionally balanced to 3342 CFM due to over amping. Static pressure in the discharge 0.78" implies there may be a restriction in the supply duct work. Recommend to have ductwork inspected.		
Created By :	National TAB	**Assigned To :**	National TAB - Will Turnbough
Status :	Open		
Priority :	High	**Asset Tag :**	
Originated Date :	02/14/2025 - Ryan Smith - National TAB		

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

Project Issue Information

Issue Name :	RTU2-6: Damper is jammed.		
Description :	Unable to adjust damper for this diffuser.		
Created By :	National TAB	**Assigned To :**	National TAB - Brianna Biggs
Status :	Open		
Priority :	Low	**Asset Tag :**	
Originated Date :	02/15/2025 - Ryan Smith - National TAB		

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

Project Issue Information

Issue Name :	RTUs: Economizers on both RTUs do not function		
Description :	Economizers on both RTUs do not show up in control terminal menus. Have loosened dampers off of actuators and will adjust by hand then mark with sharpie. Consult with mechanical contractor or manufacturer to service RTUs, then set economizer to marked position.		
Created By :	National TAB	**Assigned To :**	National TAB - Will Turnbough
Status :	Open		
Priority :	High	**Asset Tag :**	
Originated Date :	02/13/2025 - Ryan Smith - National TAB		

National TAB

Project: 02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

- Open BALANCE_SCHEDULE_4929.xlsx

CheckList List

- 01: RTU’S/AHU’S
- 02: EF’S
- 04: HOODS
- 05: FINAL TESTS

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

CheckList Information

Name :	01: RTU'S/AHU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	12/23/2024 - Kyle Henry - National TAB		
Completed Date :	02/15/2025 - Ryan Smith - National TAB		

CheckList Item Details

RTU's/AHU's

Thermostats installed and have power?	Yes
Comment:	
All diffusers and grilles are installed and match design?	No
Comment:	Diffuser RTU1-1 does not have a damper at the face or diffuser.
Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first)	Yes
Comment:	
Economizer blank plate is installed below the ouside air intake (Trane only) (N/A = not applicable)	N/A
Comment:	
Economizers are assembled and functional?	No
Comment:	Economizers are assembled and attached but not functional. Control board does not communicate with economizers. Requires servicing.
DCV Max damper opening position is set to minimum?	N/A

Comment:

Economizer not operational

Free cooling enthalpy set point set for lowest setting (Typically "D")	N/A

Comment:

Economizer not operational.

Motors are all operating below the FLA rating?	Yes

Comment:

Are belts tight?	Yes

Comment:

If direct drive unit is the speed controller working?	Yes

Comment:

Is gas piping installed and valves turned on?	N/A

Comment:

Unit free of noticeable noise and vibration	Yes

Comment:

Final outside air damper position is marked with permanent marker?	Yes

Comment:

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

CheckList Information

Name :	02: EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	12/23/2024 - Kyle Henry - National TAB		
Completed Date :	02/15/2025 - Ryan Smith - National TAB		

CheckList Item Details

EF's

Rotation is correct?	Yes
Comment:	
Belts are tight?	N/A
Comment:	
Viroguard installed on hood fan(s)?	Yes
Comment:	
Hinge kit installed installed on hood fan?	Yes
Comment:	
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Yes
Comment:	
Flex conduit is long enough so that fan can be completely tilted back?	Yes
Comment:	

There is no major leakage around base of fan?	Yes
Comment:	
Is the motor operating below the motor FLA rating?	Yes
Comment:	
For restroom fan(s) is the back draft damper installed and can it fully open?	Yes
Comment:	
Unit free of noticeable noise and vibration?	Yes
Comment:	

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

CheckList Information

Name :	04: HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	12/23/2024 - Kyle Henry - National TAB		
Completed Date :	02/15/2025 - Ryan Smith - National TAB		

CheckList Item Details

HOODS

All hood filters installed and accounted for?	Yes
Comment:	
Hoods are wired and have power?	Yes
Comment:	
Hood is free of alarms?	Yes
Comment:	
Hood is free of damage?	Yes
Comment:	
Quarter or full vertical end panels are installed if specified?	Yes
Comment:	

02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

CheckList Information

Name :	05: FINAL TESTS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	12/23/2024 - Kyle Henry - National TAB		

CheckList Item Details

FINAL CHECKS

Is space free of drafting?	Yes
Comment:	
Is space comfortable in all areas?	Yes
Comment:	
Is the space free of ventilation noise?	Yes
Comment:	
List kitchen equipment turned on for testing	Yes
Comment:	
Plancha	
List smoke candle type used	
Comment:	
45 second smoke bomb	

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood	

Comment:

100

Smoke test capture % - Top of cooking surface

Comment:

100

WITNESS

Date test was completed	02/13/2025

Comment:

TAB tech name / Firm

Comment:

Ryan Smith / National TAB Intelligence

Site super name / Firm

Comment:

Wyck Priore

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:

-0.0048"

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Project: 02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2F4447028
Model Num	ZJ120	ZJ120E36R2B5EAA2A3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	30"X22"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X24"X2"
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	3	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	9.6

Drive Data	
	Actual
Motor Sheave Size	1VM50
Motor Bore Size	0.875"
Motor Sheave SetPt	3
Fan Sheave Size	AK74
Fan Sheave Bore	1"
Belt CL Distance	19"
Num of Belts	1
Belt Size	A54
Belt Alignment	GOOD

Test Data		
	Design	**Actual**
SF CFM	4000	3342
SF RPM	-	950
RA CFM	2600	1872
OA CFM	1400	1470
RL Voltage	-	209.8/211.9/210.8
RL Amperage	-	9.6/8.51/6.94
SF Rotation	-	CW
SF System SetPt	-	96%
RA Damper Position	-	~85% 5.5"
Min OA Damper Position	-	~15% 7/8"
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.48"
Fan Suction SP	-	-0.79"
Fan Discharge SP	-	0.78"
Total ESP	.8"	1.26"
Fan Total SP	-	1.57"

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

Completed By: Ryan Smith on 02/14/2025

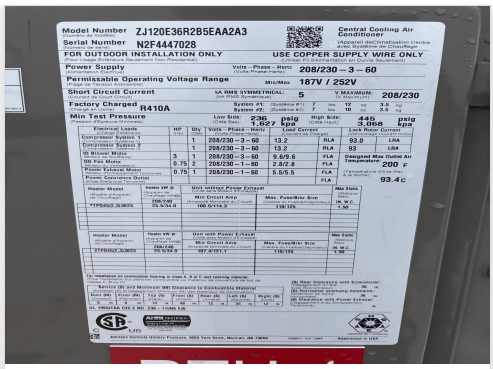
Notes:
Total flow decreased to eliminate overamping.

Written By: Ryan Smith on 02/14/2025

Unit Data - PHOTO LOG

02/13/2025

02/13/2025



02/13/2025

National TAB

Project:02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

AHU/RTU

Diffuser Supply (GRD)

RTU1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	BACK	CD1	12"	325	1	422	381	511	157.2
SGRD2	BACK	CD1	12"	325	1	615	561	269	82.8
SGRD3	BACK	CD1	8"	150	1	213	190	147	98.0
SGRD4	KITCHEN	CD2	10"	250	1	109	97	122	48.8
SGRD5	KITCHEN	CD2	10"	350	1	199	174	228	65.1
SGRD6	KITCHEN	CD2	10"	350	1	298	276	304	86.9
SGRD7	KITCHEN	CD2	10"	275	1	233	213	249	90.5
SGRD8	KITCHEN	CD1	12"	400	1	750	685	417	104.3
SGRD9	KITCHEN	CD1	12"	400	1	119	125	130	32.5
SGRD10	KITCHEN	CD2	10"	275	1	289	263	228	82.9
SGRD11	KITCHEN	CD2	10"	325	1	233	210	271	83.4
SGRD12	KITCHEN	CD2	10"	325	1	236	211	278	85.5
SGRD13	KITCHEN	CD2	10"	250	1	161	140	188	75.2
Total				4000		3877	3526	3342	83.55%

Completed By: Ryan Smith on 02/14/2025

Asset	Notes	Date	Written By
SGRD3	No damper installed at face or diffuser. Unable to balance.	02/14/2025	Ryan Smith
SGRD8	Diffuser damper had a steep dropoff. Could choose between 400+ or 200 CFM. I went with the h igher.	02/14/2025	Ryan Smith

National TAB

Project: 02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2F4447029
Model Num	ZJ120	ZJ120E36R2B5EAA2A3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	30"X22"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X24"X2"
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	3	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	9.6

Drive Data	
	Actual
Motor Sheave Size	1VM50
Motor Bore Size	0.875"
Motor Sheave SetPt	3
Fan Sheave Size	AK74
Fan Sheave Bore	1"
Belt CL Distance	19"
Num of Belts	1
Belt Size	A54
Belt Alignment	GOOD

Test Data		
	Design	**Actual**
SF CFM	4000	3768
SF RPM	-	942
RA CFM	3150	2933
OA CFM	850	834
RL Voltage	-	208.6/211.2/209.8
RL Amperage	-	10.17/7.11/8.81
SF Rotation	-	CW
SF System SetPt	-	96%
RA Damper Position	-	~95% 5.75"
Min OA Damper Position	-	~5% 0.25"
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.56
Fan Suction SP	-	-0.87
Fan Discharge SP	-	0.66
Total ESP	.8"	1.22
Fan Total SP	-	1.53

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

Completed By: Ryan Smith on 02/14/2025

Notes:
Diffusers proportionally balanced to 37688 CFM.
Diffuser 3 is low despite havinga fully open damper. Diffuser 6 has a jammed damper and cannot minimize airflow.

Written By: Ryan Smith on 02/14/2025

National TAB

Project:02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

AHU/RTU

Diffuser Supply (GRD)

RTU2/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	SR2	6"	400	0.46	683	368	398	99.5
SGRD2	DINING	SR2	6"	500	0.46	370	449	469	93.8
SGRD3	DINING	SR1	14"	800	1	398	545	545	68.1
SGRD4	DINING	SR1	14"	700	1	487	658	658	94.0
SGRD5	DINING	SR1	14"	600	1	580	525	525	87.5
SGRD6	DINING	SR1	14"	500	1	556	728	728	145.6
SGRD7	DINING	SR1	14"	500	1	598	445	445	89.0
Total				4000		3672	3718	3768	94.2%

Completed By: Ryan Smith on 02/14/2025

Asset	Notes	Date	Written By
SGRD3	Diffuser is fully open but still low.	02/14/2025	Ryan Smith
SGRD6	Damper is jammed. Unable to adjust.	02/14/2025	Ryan Smith

National TAB

Project: 02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

System/Unit: FAN - Exhaust

Asset: EF1 AREA:KITCHEN HOOD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU85HFA
Serial Num	-	6338466
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	2	1
Motor Rpm	-	1800
Phase	3	1
Voltage (rated)	208	115
Amperage (rated)	-	11.6
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	1900	1848
Fan RPM	-	1224
Fan Rotation	-	CCW
Motor RPM	-	1224
System SetPt	-	68%
RL Voltage	-	122.4
RL Amperage	-	7.84
Total ESP	1.2"	1.08"
Fan Inlet SP	-	-1.08"
Fan Discharge SP	-	ATM

Completed By: Ryan Smith on 02/14/2025

Notes:
Unit is DU85HFA instead of specced DU180HFA due to redesign for all electric appliances.

Written By: Ryan Smith on 02/13/2025

Unit Data - PHOTO LOG

02/13/2025

02/13/2025

02/13/2025

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Project: 02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

System/Unit: FAN - Exhaust

Asset: EF2 AREA:RESTROOMS

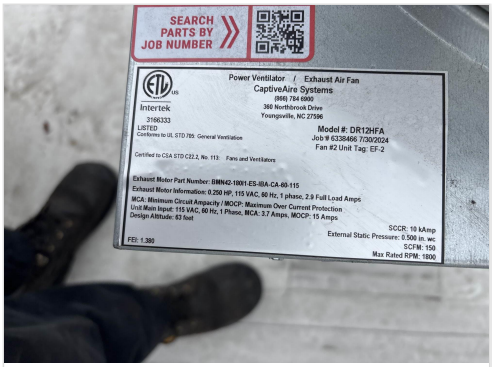
Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	6338466
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	.18	0.25
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.9
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	150	149
Fan RPM	-	1344
Fan Rotation	-	CCW
Motor RPM	-	1344
System SetPt	-	70%
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	.6"	0.34"
Fan Inlet SP	-	-0.34"
Fan Discharge SP	-	ATM

Completed By: Ryan Smith on 02/13/2025

Unit Data - PHOTO LOG



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National TAB

Project:02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF2/RESTROOMS

Asset												
Asset Name	Model Num	MFG	Type	Size	DESIGN CFM	AK	VEL(1)	CFM(1)	VEL(2)	CFM(2)	FINAL CFM	% to design
EF2-EGRD1	NA	NA	ER1	6/6	75	1	N/A	59	N/A	78	74	98.7
EF2-EGRD2	NA	NA	ER1	6/6	75	1	N/A	55	N/A	71	75	100.0
Total					150			114		149	149	99.33%

Completed By: Ryan Smith on 02/13/2025

National TAB

Project: 02-10-25 CHIPOTLE #29-4929 AVENEL (AVENEL, NJ)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:COOK LINE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	6338466
Type	TYPE 1 CANOPY HOOD	TYPE 1 CANOPY HOOD
Hood length	112"	112"
Hood Width	54"	54"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16x16	16x16
Filter Qty 1	7	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	11.34
Filter1 FPM	-	160
Filter2 FPM	-	161
Filter3 FPM	-	181
Filter4 FPM	-	189
Filter5 FPM	-	172
Filter6 FPM	-	152
Filter7 FPM	-	123
Filter Ave FPM(corr)	-	163
CFM	1900	1848

Cooking Equipment	
	Actual
Item 1	PLANCHA
Item 2	6 BURNER STOVE & DEEP FRYER

Completed By: Ryan Smith on 02/13/2025

Unit Data - PHOTO LOG

02/13/2025

02/13/2025

02/13/2025

ARCHITECTURAL AND
ANSION VALVE, SOLENOID
OL, LOW AMBIENT
NES PER MANUFACTURER'S
ION SHALL COMPLY WITH
OOF DECK TO WITHIN 3'
D TO PUBLIC VIEW
AL DRAWINGS.
TIONS AND AS DETAILED IN

ITECTURAL AND
CHIPOTLE ON EXHAUST

00. TYPICAL.
OTE KEY OPERATED RESET.

00. SEE ELECTRICAL
TICKERS ON FACE OF
HE REME HALO WOULD BE

OUTSIDE AIR INTAKES.
AND EXHAUST FAN EF-1
HEATER FLUE AND

OF ROOM AT

LLOW ALL