Report By:

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

Report: TAB

Function: Test, Adjust, & Balance

Date: 06/30/2025

Completed By: National TAB

PROJECT

06-30-25 CHIPOTLE #5591 HORN LAKE, MS

4345 GOODMAN RD

HORN LAKE, MS 38637

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

National TAB

Project: 06-30-25 CHIPOTLE #5591 HORN LAKE, MS

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

- EF 2-2 ductwork not properly sealed
- MAU not operational

06-30-25 CHIPOTLE #5591 HORN LAKE, MS

Project Issue Information

Issue Name : EF 2-2 ductwork not properly sealed

Description : Ductwork is there but is not fully connected causing low total airflow. A temporary solution has been applied to make the unit able to be balanced. Installers have been contacted to come back out.

Created By : National TAB

Assigned To : National TAB - Dan Hertenstein

Status : Open

Priority : High

Asset Tag :

Originated Date : 06/25/2025 - Aaron Cosby - National TAB

Project Issue File Details

06/25/2025

06/25/2025

06-30-25 CHIPOTLE #5591 HORN LAKE, MS

Project Issue Information

Issue Name :	MAU not operational		
Description :	Unit was not assembled properly before delivery. Fan bracket was missing upon arrival and cannot run without immediate danger to the unit or someone. A tech will be sent out Monday 6/30 to assemble. GC's punch is Tuesday 7/1 and turnover is Tuesday 7/8		
Created By :	National TAB	**Assigned To :**	National TAB - Will Turnbough
Status :	Open		
Priority :	Urgent	**Asset Tag :**	
Originated Date :	06/25/2025 - Aaron Cosby - National TAB		

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	KITCHEN	4000	3781	3250	2963	750	818	18.8%	21.6%						
RTU-2	DINING	4000	4179	3250	3466	750	713	18.8%	17.1%						
MUA-1	HOOD									1300	0				
EF-1	HOOD FAN											2550	2274		
EF-2	RESTROOMS													150	164
TOTALS		8000	7960	6500	6429	1500	1531			1300	0	2550	2274	150	164

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2800	1531
TOTAL EXHAUST	2700	2438
NET AIRFLOW	100	-907

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	NA
SIDE	NA
REAR	NA
AVERAGE	**#DIV/0!**

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:

MAU not operational at time of this file

CheckList List

- 02: EF'S
- FINAL TESTS
- HOODS
- MUA
- RTU'S/AHU'S

06-30-25 CHIPOTLE #5591 HORN LAKE, MS

CheckList Information

Name :	02: EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/13/2025 - Tara Metcalf - National TAB		
Completed Date :	07/01/2025 - Aaron Cosby - 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:	

06-30-25 CHIPOTLE #5591 HORN LAKE, MS

CheckList Information

Name :	FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/13/2025 - Tara Metcalf - National TAB		
Completed Date :	07/01/2025 - Aaron Cosby - 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	N/A
Comment:	

Smoke test not done because MAU inoperable

List smoke candle type used

Comment:

Smoke test not done because MAU inoperable

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood

Comment:

Smoke test not done because MAU inoperable

Smoke test capture % - Top of cooking surface

Comment:

WITNESS

Date test was completed	N/A

Comment:

Smoke test not done because MAU inoperable

TAB tech name / Firm

Comment:

NA

Site super name / Firm

Comment:

NA

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:

06-30-25 CHIPOTLE #5591 HORN LAKE, MS

CheckList Information

Name :	HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/13/2025 - Tara Metcalf - National TAB		
Completed Date :	07/01/2025 - Aaron Cosby - 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:	

06-30-25 CHIPOTLE #5591 HORN LAKE, MS

CheckList Information

Name :	MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/13/2025 - Tara Metcalf - National TAB		
Completed Date :	07/01/2025 - Aaron Cosby - National TAB		

CheckList Item Details

MUA

Rotation is correct?	N/A
Comment:	
Gas piping is installed and valves are in on position?	No
Comment:	
Internal motorized damper is fully opening?	N/A
Comment:	
Motor is operating below the FLA rating?	N/A
Comment:	
Unit free of noticeable noise and vibration?	N/A
Comment:	

Notes/Comments :

Unit inoperable at time of first visit

Date :07/01/2025

06-30-25 CHIPOTLE #5591 HORN LAKE, MS

CheckList Information

Name :	RTU'S/AHU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/13/2025 - Tara Metcalf - National TAB		
Completed Date :	07/01/2025 - Aaron Cosby - 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?	Yes
Comment:	
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?	Yes
Comment:	
DCV Max damper opening position is set to minimum?	N/A
Comment:	

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

Motors are all operating below the FLA rating?	Yes
Comment:	

Are belts tight?	N/A
Comment:	

If direct drive unit is the speed controller working?	Yes
Comment:	

Is gas piping installed and valves turned on?	Yes
Comment:	

Unit free of noticeable noise and vibration	Yes
Comment:	

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

National TAB

Project: 06-30-25 CHIPOTLE #5591 HORN LAKE, MS

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0424P63034
Model Num	48FCFN12	48FCFN12
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19"
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Test Data		
	Design	**Actual**
SF CFM	3750	3781
SF RPM	-	2024
RA CFM	3250	2963
OA CFM	750	818
RL Voltage	-	211/212/212
RL Amperage	-	7.4/7.4/7.5
SF Rotation	-	CCW
SF System SetPt	-	8.7VDC
Min OA Damper Position	-	3.60V

Motor Data		
	Design	**Actual**
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	12.6

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-1.04”
Fan Suction SP	-	-1.63”
Fan Discharge SP	-	0.34”
Total ESP	0.80"	1.38"
Fan Total SP	-	1.94"

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

Completed By: Aaron Cosby on 06/26/2025

Notes:
Pressures high. Return duct, return damper, and MA compartment checked. All good

Written By: Aaron Cosby on 06/26/2025

Unit Data - PHOTO LOG

06/25/2025

National TAB

Project:06-30-25 CHIPOTLE #5591 HORN LAKE, MS

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	KITCHEN	CD1	12"	400	1	547	412	412	103.0
SGRD2	KITCHEN	CD1	12"	400	1	541	413	413	103.3
SGRD3	HOOD AC	ACPSP	85X14	700	1	725	764	764	109.1
SGRD4	KITCHEN	CD1	10"	350	1	338	323	323	92.3
SGRD5	KITCHEN	CD1	10"	350	1	318	340	340	97.1
SGRD6	KITCHEN	CD1	10"	350	1	397	366	366	104.6
SGRD7	KITCHEN	CD1	10"	350	1	392	338	338	96.6
SGRD8	KITCHEN	CD1	10"	400	1	385	381	381	95.3
SGRD9	KITCHEN	CD1	10"	400	1	366	390	390	97.5
SGRD10	KITCHEN	CD3	6"	50	1	103	54	54	108.0
Total				3750		4112	3781	3781	100.83%

Completed By: Aaron Cosby on 06/25/2025

National TAB

Project: 06-30-25 CHIPOTLE #5591 HORN LAKE, MS

System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0723P72808
Model Num	48FCFN14	48FCFN14
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19"
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2"

Test Data		
	Design	**Actual**
SF CFM	4000	4179
SF RPM	-	1756
RA CFM	3250	3466
OA CFM	750	713
RL Voltage	-	211/210/210
RL Amperage	-	6.5/6.5/7.5
SF Rotation	-	CCW
SF System SetPt	-	7.5VDC
Min OA Damper Position	-	3.45V

Motor Data		
	Design	**Actual**
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	7.5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.78”
Fan Suction SP	-	-1.33”
Fan Discharge SP	-	0.53”
Total ESP	0.80"	1.31"
Fan Total SP	-	1.86"

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

Completed By: Aaron Cosby on 06/26/2025

Unit Data - PHOTO LOG

06/25/2025

National TAB

Project:06-30-25 CHIPOTLE #5591 HORN LAKE, MS

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	18"	500	1	443	544	544	108.8
SGRD2	DINING	SR2	18"	500	1	337	535	535	107.0
SGRD3	DINING	SR1	14"	600	1	780	561	561	93.5
SGRD4	DINING	SR1	14"	600	1	823	605	605	100.8
SGRD5	DINING	SR1	14"	600	1	695	641	641	106.8
SGRD6	DINING	SR1	14"	600	1	758	638	638	106.3
SGRD7	DINING	SR1	14"	600	1	648	655	655	109.2
Total				4000		4484	4179	4179	104.48%

Completed By: Aaron Cosby on 06/25/2025

National TAB

Project: 06-30-25 CHIPOTLE #5591 HORN LAKE, MS

System/Unit: FAN - Exhaust

Asset: EF1 AREA:KITCHEN HOOD FAN

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCUE-160-VG	XCUE-160-VG
Serial Num	-	26723209
Type	UPBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	145T
Horsepower	2	2
Motor Rpm	1725	1800
Phase	1	3
Voltage (rated)	208	230
Amperage (rated)	-	4.8
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	2550	2274
Fan RPM	1330	NA
Fan Rotation	-	NA
Motor RPM	-	NA
System SetPt	-	6.3VDC
RL Voltage	-	210
RL Amperage	-	1.5/1.5/1.5
Total ESP	1.20"	-0.75”
Fan Inlet SP	-	-0.75”
Fan Discharge SP	-	ATM

Completed By: Aaron Cosby on 06/26/2025

Unit Data - PHOTO LOG

06/25/2025

National TAB

Project: 06-30-25 CHIPOTLE #5591 HORN LAKE, MS

System/Unit: FAN - Exhaust

Asset: EF2 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCUE-097-VG	XCUE-097-VG
Serial Num	-	26715417
Type	UPBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Horsepower	.25	0.25
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.85
Service Factor	-	1.25

Test Data		
	Design	**Actual**
CFM	150	164
Fan RPM	1330	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	MAX
RL Voltage	-	122
RL Amperage	-	1.70
Total ESP	.60"	0.21”
Fan Inlet SP	-	-0.21”
Fan Discharge SP	-	ATM

Completed By: Aaron Cosby on 06/26/2025

Unit Data - PHOTO LOG

06/25/2025

National TAB

Project:06-30-25 CHIPOTLE #5591 HORN LAKE, MS

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF2/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	RESTROOM	ER1	6"	75	1	34	34	83	110.7
EGRD2	RESTROOM	ER1	6"	75	1	75	75	81	108.0
Total				150		109	109	164	109.33%

National TAB

Project: 06-30-25 CHIPOTLE #5591 HORN LAKE, MS

System/Unit: FAN - Supply

Asset: MUA1 AREA:HOOD MUA

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XDGX-9115-HO5-VG	XDGX-9115-HO5-VG
Serial Num	-	26714577
Type	MUA	MUA
Configuration	VERTICAL	HORIZONTAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	1725	NA
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.5
Service Factor	-	NA

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	N
Flame Status (pass/fail)	-	Fail
Inlet Air Temp SetPt	-	0
Discharge Air Temp SetPt	-	0
Air Flow Switch SP Actual	-	0

Test Data		
	Design	**Actual**
CFM	1300	0
SF RPM	-	0
Motor RPM	-	0
SF System SetPt	-	0
RL Voltage	-	0
RL Amperage	-	0
Total ESP	-	0
Fan Discharge SP	-	0

General	
	Actual
Fan Rotation Correct	NA

Unit Data - PHOTO LOG

06/25/2025

National TAB

Project: 06-30-25 CHIPOTLE #5591 HORN LAKE, MS

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:KITCHEN HOOD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XXEW-153-S	XXEW-153-S
Job / Serial Num	-	267727017
Type	TYPE I - CANOPY	TYPE I CANOPY
Hood length	153"	153"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	-	14"
Supply Plenum Length	-	165.5"

Test Data Exhaust		
	Design	**Actual**
Filter Type	X-TRACTOR	X-TRACTOR
Filter Size 1	16X20	16X20
Filter Size 2	20X20	20X20
Filter Qty 1	2	2
Filter Qty 2	6	6
Filter AK factor size 1	1.53	2
Filters AK factor size 2	2.26	3
Filter Total AK Area	16.62	22
Filter1 FPM	-	95
Filter2 FPM	-	116
Filter3 FPM	-	92
Filter4 FPM	-	112
Filter5 FPM	-	126
Filter6 FPM	-	107
Filter7 FPM	-	92
Filter8 FPM	-	93
Filter Ave FPM(corr)	-	103(20X20) 105(16X20)
CFM	2550	2274

Cooking Equipment	
	Actual
Item 1	GRILL
Item 2	FRYER

Test Data Supply		
	Design	**Actual**
Total Area	8.02	
Kv factor (Vel)	.89	
Num of Readings	-	
Reading1 FPM	-	
Reading2 FPM	-	
Reading3 FPM	-	
Reading4 FPM	-	
Reading5 FPM	-	
Reading6 FPM	-	
Reading7 FPM	-	
Reading8 FPM	-	
Reading9 FPM	-	
Reading10 FPM	-	
Reading11 FPM	-	
Reading12 FPM	-	
Reading13 FPM	-	
Reading14 FPM	-	
Ave FPM(corr)	-	
CFM	1300	

Unit Data - PHOTO LOG

06/25/2025

GH ROOF.
E REFRIGERANT LINE
FRIGERANT PIPING TO
SHROUD AS SHOWN

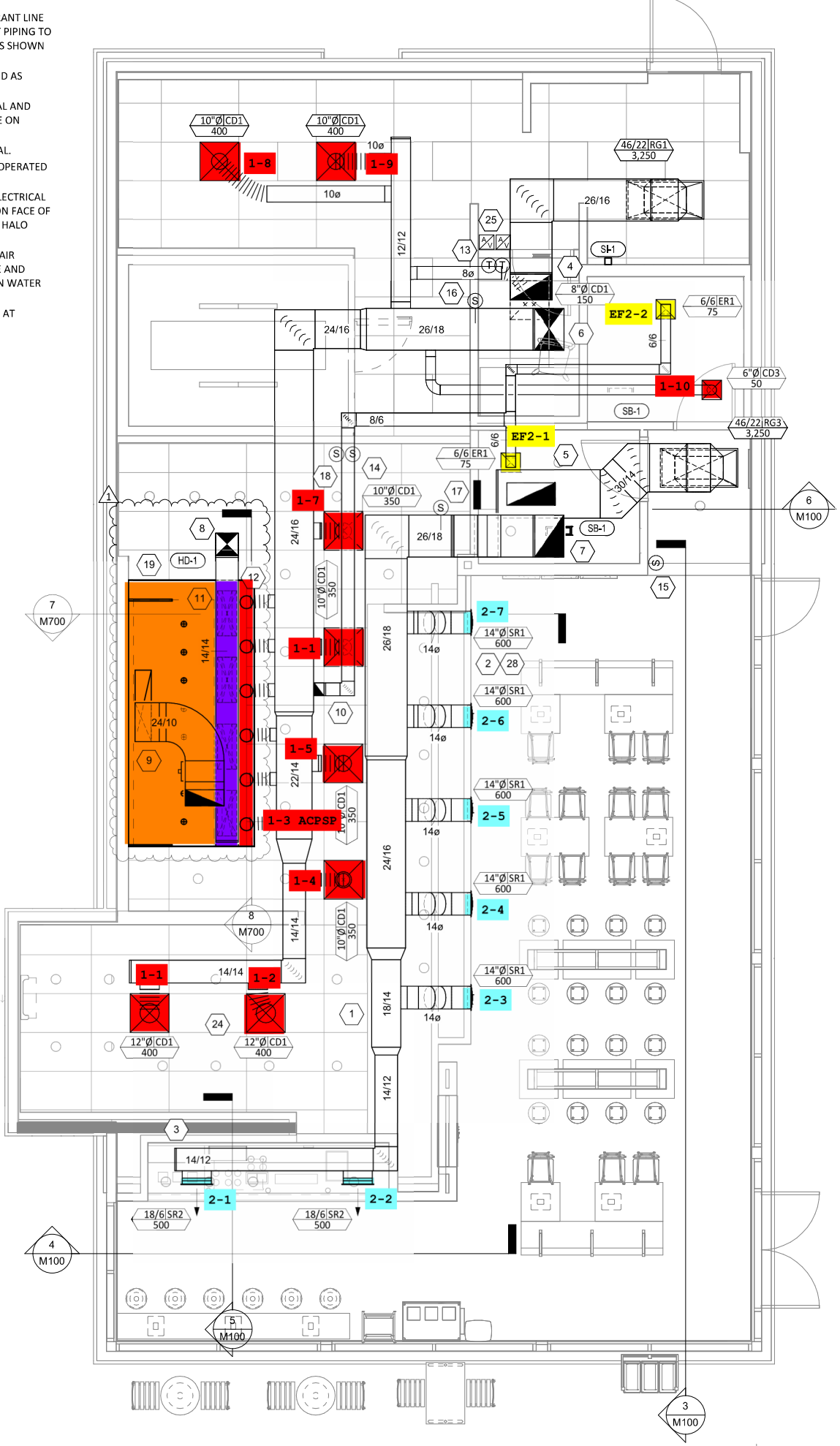
CTIONS AND AS

HITECTURAL AND
Y CHIPOTLE ON

700. TYPICAL.
NOTE KEY OPERATED
. TYPICAL.
700. SEE ELECTRICAL
STICKERS ON FACE OF
THE REME HALO

) OUTSIDE AIR
AIR INTAKE AND
MATION ON WATER

: OF ROOM AT



FOI

CHIF
CO
TEL
INTER

STORE NO.: 5591

Issue Record:
10/17/2024

Revisions:
1 02/26/25

Drawn:
IJD

Project No.
241085

Contents:
HVAC I

HVAC FLOOR PLAN

1/4" = 1'-0"

Date: 7/1/2025