Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 07/31/2025

Completed By: National TAB

PROJECT

07-28-25 CHIPOTLE #5480 FREDERICK, CO

6160 SILVERSTONE DR

FREDERICK, CO 80504

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

National TAB

Project: 07-28-25 CHIPOTLE #5480 FREDERICK, CO

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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.

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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	3400	3428	2650	2620	750	808	22.1%	23.6%						
RTU-2	DINING	3400	3351	2650	2540	750	811	22.1%	24.2%						
MUA-1	KITCHEN HD									1300	1319				
EF-1	KITCHEN HD											2550	2609		
EF-2	RESTROOM													150	150
TOTALS		6800	6779	5300	5160	1500	1619			1300	1319	2550	2609	150	150

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2800	2938
TOTAL EXHAUST	2700	2759
NET AIRFLOW	100	179

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0015
SIDE	
REAR	0.002
AVERAGE	**0.0018**

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

- 01: RTU'S/AHU'S
- 02: EF'S
- 03: MUA
- 04: HOODS
- 05: FINAL TESTS

07-28-25 CHIPOTLE #5480 FREDERICK, CO

CheckList Information

Name :	01: RTU'S/AHU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2025 - Natasha Louw - National TAB		
Completed Date :	08/08/2025 - Daniel Covaci - 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)	Yes
Comment:	
Economizers are assembled and functional?	Yes
Comment:	
DCV Max damper opening position is set to minimum?	Yes
Comment:	

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

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CheckList Information

Name :	02: EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2025 - Natasha Louw - National TAB		
Completed Date :	08/08/2025 - Daniel Covaci - 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:	

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CheckList Information

Name :	03: MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2025 - Natasha Louw - National TAB		
Completed Date :	08/08/2025 - Daniel Covaci - National TAB		

CheckList Item Details

MUA

Rotation is correct?	Yes
Comment:	
Gas piping is installed and valves are in on position?	Yes
Comment:	
Internal motorized damper is fully opening?	Yes
Comment:	
Motor is operating below the FLA rating?	Yes
Comment:	
Unit free of noticeable noise and vibration?	Yes
Comment:	

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CheckList Information

Name :	04: HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2025 - Natasha Louw - National TAB		
Completed Date :	08/08/2025 - Daniel Covaci - 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:	

07-28-25 CHIPOTLE #5480 FREDERICK, CO

CheckList Information

Name :	05: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2025 - Natasha Louw - National TAB		
Completed Date :	08/08/2025 - Daniel Covaci - 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:	

Kitchen equipment was not powered.

List smoke candle type used

Comment:

Technician was unable to perform smoke test.

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood

Comment:

Technician was unable to perform smoke test.

Smoke test capture % - Top of cooking surface

Comment:

Technician was unable to perform smoke test.

WITNESS

Date test was completed	N/A

Comment:

TAB tech name / Firm

Comment:

Daniel Covaci/National TAB

Site super name / Firm

Comment:

Greg Saccomano/Epic Construction

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)	Pass

Comment:

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Project: 07-28-25 CHIPOTLE #5480 FREDERICK, CO

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0524P63215
Model Num	48FCFN09	48FCFN09
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35.5"X19.5"
Num Final Filter 1	-	4
Final Filter Size 1	-	19.5"X19.5"

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	N/L
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	7.5

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

Test Data		
	Design	**Actual**
SF CFM	3400	3428
SF RPM	-	1808
RA CFM	2650	2620
OA CFM	750	808
RL Voltage	-	215, 216, 215
RL Amperage	-	4.0, 4.3, 4.2
SF Rotation	-	COUNTERCLOCKWISE
SF System SetPt	-	B55
Min OA Damper Position	-	4.2V
OA Enthalpy Setpt	-	ES5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.68
Fan Suction SP	-	- 1.03
Fan Discharge SP	-	0.63
Total ESP	0.8"	1.31"
Fan Total SP	-	1.66"

General	
	Actual
Unit Filters Clean	Yes

Unit Data - PHOTO LOG

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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	10"	400	1	593	304	387	96.8
SGRD2	KITCHEN	CD1	10"	350	1	658	292	375	107.1
SGRD3	KITCHEN HD	ACPSP	165X6	696	5.36	1099	1313	766	110.1
SGRD4	SERVING	CD1	10"	400	1	317	266	387	96.8
SGRD5	SERVING	CD1	10"	400	1	164	146	390	97.5
SGRD6	SERVING	CD1	10"	400	1	269	248	387	96.8
SGRD7	BOH	CD1	10"	300	1	706	269	295	98.3
SGRD8	BOH	CD1	10"	300	1	102	104	295	98.3
SGRD9	OFFICE	CD1	8"	150	1	104	102	146	97.3
Total				3396		4012	3044	3428	100.94%

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System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0524P63214
Model Num	48FCFN09	48FCFN09
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	19"X35.5"
Num Final Filter 1	-	4
Final Filter Size 1	-	19.5"X19.5"

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	N/L
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	7.5

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

Test Data		
	Design	**Actual**
SF CFM	3400	3351
SF RPM	-	1443
RA CFM	2650	2540
OA CFM	750	811
RL Voltage	-	215, 215, 214
RL Amperage	-	2.5, 2.4, 2.5
SF Rotation	-	COUNTERCLOCKWISE
SF System SetPt	-	A60
Min OA Damper Position	-	4.4V
OA Enthalpy Setpt	-	ES5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.45
Fan Suction SP	-	-0.73
Fan Discharge SP	-	0.32
Total ESP	0.8"	0.77"
Fan Total SP	-	1.05"

General	
	Actual
Unit Filters Clean	Yes

Unit Data - PHOTO LOG

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Diffuser Supply (GRD)

RTU2/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	BEVERAGE AREA	SR2	18/6	400	0.63	236	309	406	101.5
SGRD2	BEVERAGE AREA	SR2	18/6	500	0.63	317	357	484	96.8
SGRD3	DINING	SR1	12"	500	1	362	579	485	97.0
SGRD4	DINING	SR1	12"	500	1	522	436	506	101.2
SGRD5	DINING	SR1	12"	500	1	395	432	515	103.0
SGRD6	DINING	SR1	12"	500	1	410	575	462	92.4
SGRD7	DINING	SR1	12"	500	1	532	372	493	98.6
Total				3400		2774	3060	3351	98.56%

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Project: 07-28-25 CHIPOTLE #5480 FREDERICK, CO

System/Unit: FAN - Exhaust

Asset: EF1 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	7167846
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	N/L
Horsepower	2.000	2
Motor Rpm	-	1170
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	6
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	2550	2609
Fan RPM	1304	1034
Fan Rotation	-	COUNTERCLOCKWISE
Motor RPM	-	1034
System SetPt	-	53Hz
RL Voltage	-	96
RL Amperage	-	4.8
Total ESP	1.450"	0.76"
Fan Inlet SP	-	-0.76"
Fan Discharge SP	-	ATM

Unit Data - PHOTO LOG

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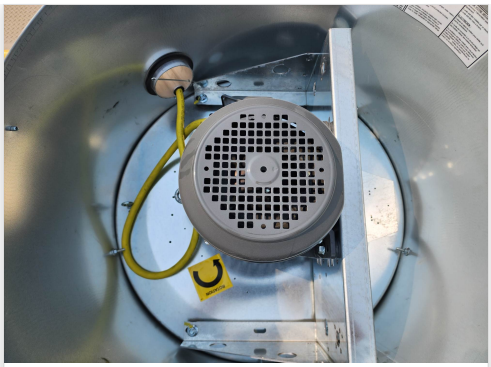

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Project: 07-28-25 CHIPOTLE #5480 FREDERICK, CO

System/Unit: FAN - Exhaust

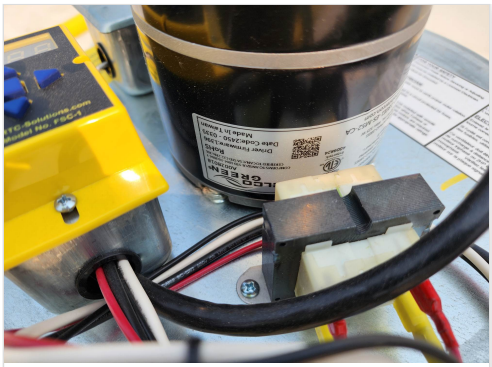
Asset: EF2 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	7167846
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	150	150
Fan RPM	1402	1329
Fan Rotation	-	COUNTERCLOCKWISE
Motor RPM	-	1329
System SetPt	-	68%

Motor Data		
	Design	**Actual**
Motor MFG	-	TELECO GREEN
Frame	-	N/L
Horsepower	0.25	0.25
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.9
Service Factor	-	N/L

Unit Data - PHOTO LOG



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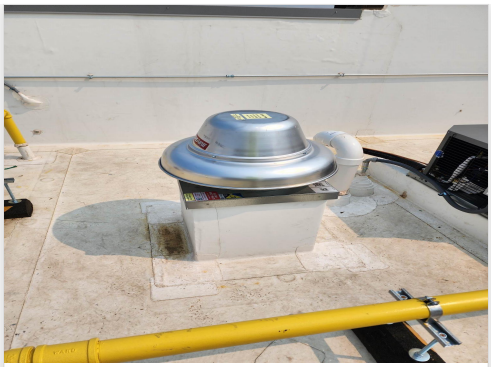

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Project:07-28-25 CHIPOTLE #5480 FREDERICK, CO

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	RESTROOMS	ER1	6/6	75	1	103	63	79	105.3
EGRD2	RESTROOMS	ER1	6/6	75	1	91	55	71	94.7
Total				150		194	118	150	100%

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Project: 07-28-25 CHIPOTLE #5480 FREDERICK, CO

System/Unit: FAN - Supply

Asset: MAU1 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	A1-D.250-15D	A1-D.250-15D
Serial Num	-	7167664
Type	MAU	MAU
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	N/L
Horsepower	1.000	1
Motor Rpm	-	1740
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	2.9
Service Factor	-	1

Gas Heat		
	Design	**Actual**
Air Flow Switch SP Actual	-	0.34"

Test Data		
	Design	**Actual**
CFM	1300	1319
SF RPM	1667	1531
Motor RPM	-	1531
SF System SetPt	-	50.2Hz
RL Voltage	-	128
RL Amperage	-	2.4

Unit Data - PHOTO LOG

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Project: 07-28-25 CHIPOTLE #5480 FREDERICK, CO

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2-ACPSP-F
Job / Serial Num	-	7167846
Type	TYPE 1 CANOPY	TYPE 1
Hood length	153"	153"
Hood Width	54"	54"
Supply Plenum Type	-	AC-PSP
Supply Plenum Width	9"	9"
Supply Plenum Length	165"	165"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	16X16	16X16
Filter Qty 1	9	9
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	14.58	14.58
Filter1 FPM	-	156
Filter2 FPM	-	169
Filter3 FPM	-	197
Filter4 FPM	-	219
Filter5 FPM	-	167
Filter6 FPM	-	204
Filter7 FPM	-	166
Filter8 FPM	-	169
Filter9 FPM	-	165
Filter Ave FPM(corr)	-	179
CFM	2550	2609

Test Data Supply		
	Design	**Actual**
Total Area	10.31	10.31
Kv factor (Vel)	0.81	0.81
Num of Readings	-	9
Reading1 FPM	-	229
Reading2 FPM	-	132
Reading3 FPM	-	137
Reading4 FPM	-	176
Reading5 FPM	-	142
Reading6 FPM	-	145
Reading7 FPM	-	112
Reading8 FPM	-	192
Reading9 FPM	-	159
Ave FPM(corr)	-	128
CFM	1300	1319

Unit Data - PHOTO LOG

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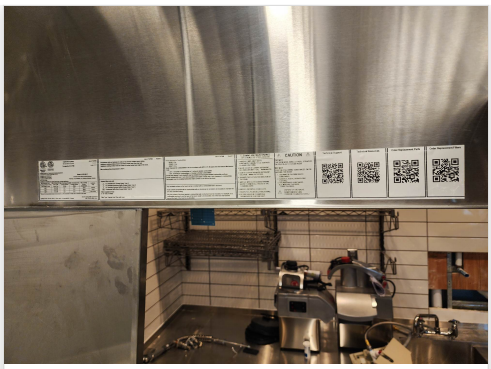

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Cooking Equipment - PHOTO LOG

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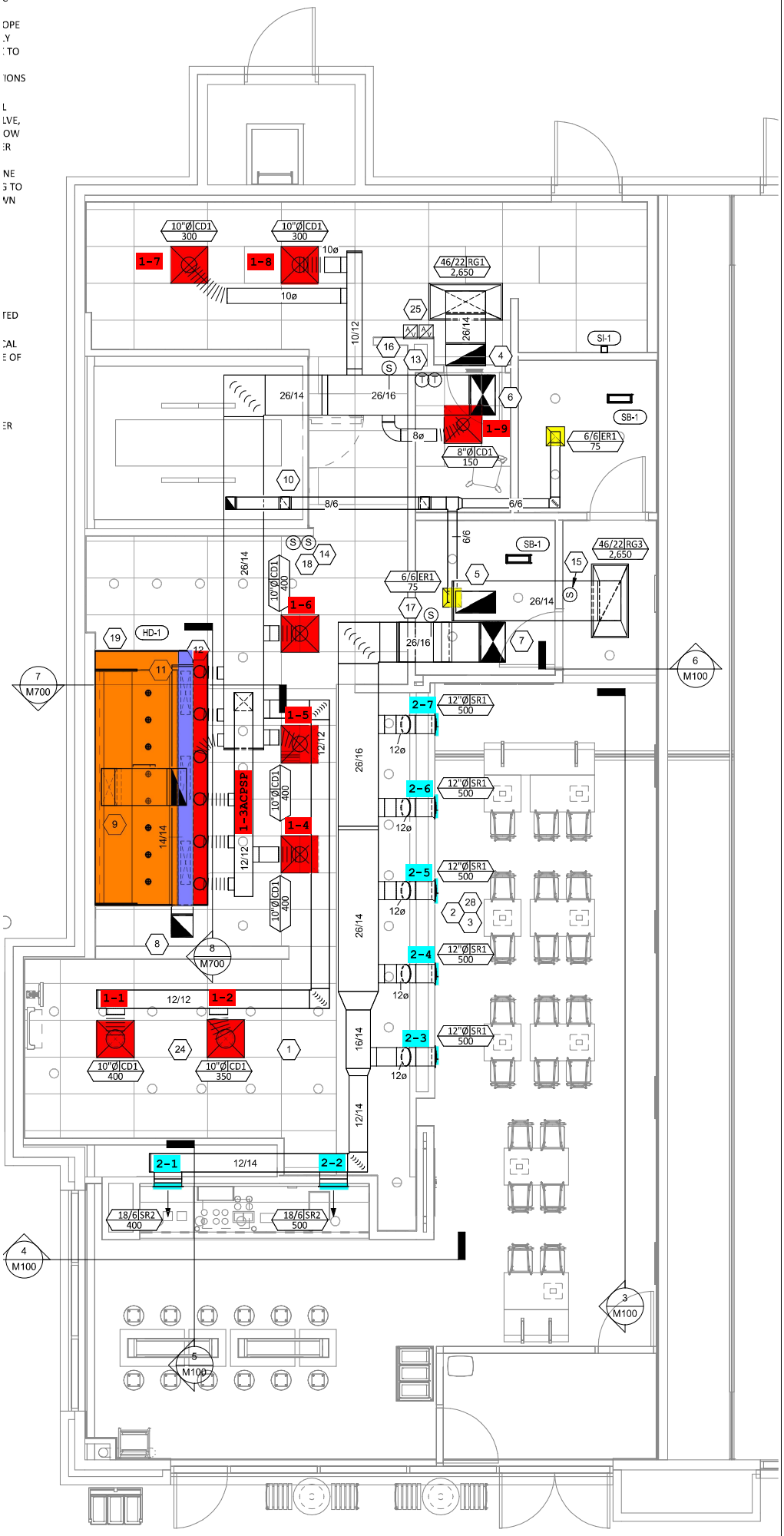

HVAC FLOOR PLAN