Report By:

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

Report: TAB

Function: Test, Adjust, & Balance

Date: 06/10/2025

Completed By: National TAB

PROJECT

06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

1438 DAYSPRING AVE

BOZEMAN, MT 59718

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

National TAB

Project: 06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

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

- CONSTRUCTION FILTERS INSTALLED

06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

Project Issue Information

Issue Name :	CONSTRUCTION FILTERS INSTALLED		
Description :	Both units have construction filters currently installed. recommended to replace with standard pleated filters.		
Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Low	**Asset Tag :**	
Originated Date :	06/10/2025 - Zack Eismin - 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	3400	3385	2900	2882	500	503	14.7%	14.9%						
RTU-2	DINING	4000	4050	3000	3036	1000	1014	25.0%	25.0%						
EF-1	COOK LINE											2550	2595		
EF-2	RESTROOM													150	160
MAU-1	HOOD									1300	1361				
TOTALS		7400	7435	5900	5918	1500	1517			1300	1361	2550	2595	150	160

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2800	2878
TOTAL EXHAUST	2700	2755
NET AIRFLOW	100	123

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0061
SIDE	
REAR	0.0057
AVERAGE	**0.0059**

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

06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

CheckList Information

Name :	01: RTU's/AHU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/04/2025 - Kyle Henry - National TAB		
Completed Date :	06/10/2025 - Zack Eismin - 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)	N/A
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?	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?	Yes
Comment:	

06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

CheckList Information

Name :	02: EF's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/04/2025 - Kyle Henry - National TAB		
Completed Date :	06/10/2025 - Zack Eismin - 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:	

06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

CheckList Information

Name :	03: MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/04/2025 - Kyle Henry - National TAB		
Completed Date :	06/10/2025 - Zack Eismin - 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:	

06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

CheckList Information

Name :	04: HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/04/2025 - Kyle Henry - National TAB		
Completed Date :	06/10/2025 - Zack Eismin - 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:	

06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

CheckList Information

Name :	05: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/04/2025 - Kyle Henry - National TAB		
Completed Date :	06/10/2025 - Zack Eismin - 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:	
List smoke candle type used	
Comment:	
45 seconds	

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	06/10/2025

Comment:

TAB tech name / Firm

Comment:

Zack / National TAB

Site super name / Firm

Comment:

Matt / Dick Anderson Construction

Owner representative name / Firm (if Applicable)

Comment:

N/A

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:

0.0059"

National TAB

Project: 06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0624P64200
Model Num	48FC_N09	48FCFN09D3M5A6W4F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	34.5X19
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3	NL
Motor Rpm	-	NL
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	3385
SF RPM	-	1722
RA CFM	2900	2882
OA CFM	500	503
RL Voltage	-	215/214/214
RL Amperage	-	4.25/4.24/4.24
SF Rotation	-	CCW
SF System SetPt	-	6.4VDC
RA Damper Position	-	83%
Min OA Damper Position	-	17%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	ES5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.58"
Fan Suction SP	-	-0.92"
Fan Discharge SP	-	0.47"
Total ESP	.8"	1.05"
Fan Total SP	-	1.39"

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

Completed By: Zack Eismin on 06/10/2025

Unit Data - PHOTO LOG

06/09/2025

National TAB

Project:06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

AHU/RTU

Diffuser Supply (GRD)

RTU1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU1-SGRD1	BACK	CD1	12"	350	1	581	489	375	107.1
RTU1-SGRD2	BACK	CD1	12"	350	1	652	549	336	96.0
RTU1-SGRD3	BACK	CD1	8"	150	1	251	211	141	94.0
RTU1-SGRD4	KITCHEN	CD2	8"	250	1	210	181	241	96.4
RTU1-SGRD5	KITCHEN	CD2	8"	250	1	287	241	243	97.2
RTU1-SGRD6	KITCHEN	CD2	8"	250	1	297	250	271	108.4
RTU1-SGRD7	KITCHEN	CD2	8"	250	1	243	205	245	98.0
RTU1-SGRD8	KITCHEN	CD1	12"	425	1	546	460	429	100.9
RTU1-SGRD9	KITCHEN	CD1	12"	425	1	262	220	383	90.1
RTU1-SGRD10	HOOD	ACPSP	165X6	700	5.95	712	599	721	103.0
Total				3400		4041	3405	3385	99.56%

Completed By: Zack Eismin on 06/10/2025

National TAB

Project: 06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0424P63020
Model Num	48FC_N12	48FCFN12D3M5A6W4F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	34.5X19
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	12.6

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

Test Data		
	Design	**Actual**
SF CFM	4000	4050
SF RPM	-	1647
RA CFM	3000	3036
OA CFM	1000	1014
RL Voltage	-	214/214/214
RL Amperage	-	3.7/3.7/3.72
SF Rotation	-	CCW
SF System SetPt	-	6.1VDC
RA Damper Position	-	75%
Min OA Damper Position	-	25%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	ES5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.58"
Fan Suction SP	-	-0.93"
Fan Discharge SP	-	0.36"
Total ESP	.8"	0.94"
Fan Total SP	-	1.29"

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

Completed By: Zack Eismin on 06/10/2025

Unit Data - PHOTO LOG

06/09/2025

National TAB

Project:06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

AHU/RTU

Diffuser Supply (GRD)

RTU2/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU2-SGRD1	DINING	SR2	6"	400	1	546	451	431	107.8
RTU2-SGRD2	DINING	SR2	6"	500	1	432	357	512	102.4
RTU2-SGRD3	DINING	SR1	14"	800	1	830	686	809	101.1
RTU2-SGRD4	DINING	SR1	14"	700	1	874	722	691	98.7
RTU2-SGRD5	DINING	SR1	14"	600	1	784	648	611	101.8
RTU2-SGRD6	DINING	SR1	14"	500	1	734	607	523	104.6
RTU2-SGRD7	DINING	SR1	14"	450	1	623	515	421	93.6
RTU2-SGRD8	RESTROOM	CD3	6"	50	1	101	84	52	104.0
Total				4000		4924	4070	4050	101.25%

Completed By: Zack Eismin on 06/10/2025

National TAB

Project: 06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

System/Unit: FAN - Exhaust

Asset: EF1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	6891720
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	WEG
Frame	-	182T
Horsepower	2	2
Motor Rpm	-	1170
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	6.44
Service Factor	-	1.25

Test Data		
	Design	**Actual**
CFM	2550	2595
Fan RPM	-	1030
Fan Rotation	-	CCW
Motor RPM	-	1030
System SetPt	-	52.8HZ
RL Voltage	-	215/216/216
RL Amperage	-	4.9/4.9/4.9
Total ESP	1.2"	1.07"
Fan Inlet SP	-	-1.07"
Fan Discharge SP	-	ATM

Completed By: Zack Eismin on 06/10/2025

Unit Data - PHOTO LOG

06/09/2025

National TAB

Project: 06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

System/Unit: FAN - Exhaust

Asset: EF2 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	6891720
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	120
Amperage (rated)	-	2.9
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	150	160
Fan RPM	-	937
Fan Rotation	-	CCW
Motor RPM	-	937
System SetPt	-	50%
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	.6"	0.41"
Fan Inlet SP	-	-0.41"
Fan Discharge SP	-	ATM

Completed By: Zack Eismin on 06/10/2025

Unit Data - PHOTO LOG

06/09/2025

National TAB

Project:06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF2/RESTROOM

Asset												
Asset Name	Model Num	MFG	Type	Size	DESIGN CFM	AK	VEL(1)	CFM(1)	VEL(2)	CFM(2)	FINAL CFM	% to design
EF2-1	4330R	NAILOR	ERG	12X12	100	1	N/A	215	N/A	108	108	108.0
EF2-2	4330R	NAILOR	ERG	12X12	50	1	N/A	198	N/A	52	52	104.0
Total					150			413		160	160	106.67%

Completed By: Zack Eismin on 06/10/2025

National TAB

Project: 06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

System/Unit: FAN - Supply

Asset: MAU1 AREA:HOOD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1-D.250-15D	A1-D.250-15D
Serial Num	-	6891720
Type	MAU	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	143T
Horsepower	2	1
Motor Rpm	-	1740
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	2.9
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	YES
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	-	55
Discharge Air Temp SetPt	-	60
Air Flow Switch SP Actual	-	0.44"

Test Data		
	Design	**Actual**
CFM	1300	1361
SF RPM	-	1746
Motor RPM	-	1746
SF System SetPt	-	60.2HZ
RL Voltage	-	215/215/215
RL Amperage	-	2.5/2.5/2.5
Total ESP	-	NA
Fan Discharge SP	-	NA

General	
	Actual
Fan Rotation Correct	YES

Completed By: Zack Eismin on 06/10/2025

Unit Data - PHOTO LOG

06/09/2025

National TAB

Project: 06-09-25 CHIPOTLE #5186 BOZEMAN, MT (NORTHWEST CROSSING)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:COOK LINE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2
Job / Serial Num	-	6891720
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	153"	153"
Hood Width	54"	54"
Supply Plenum Type	-	PERFORATED
Supply Plenum Width	9"	9"
Supply Plenum Length	165"	165"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
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	-	161
Filter2 FPM	-	181
Filter3 FPM	-	177
Filter4 FPM	-	214
Filter5 FPM	-	182
Filter6 FPM	-	181
Filter7 FPM	-	171
Filter8 FPM	-	169
Filter9 FPM	-	168
Filter Ave FPM(corr)	-	178
CFM	2550	2595

Cooking Equipment	
	Actual
Item 1	FLAT TOP GRILL
Item 2	STOVE RANGE
Item 3	RICE COOKER
Item 4	FRYER
Item 5	

Test Data Supply		
	Design	**Actual**
Total Area	10.31	10.31
Kv factor (Vel)	.81	0.81
Num of Readings	-	12
Reading1 FPM	-	153
Reading2 FPM	-	152
Reading3 FPM	-	152
Reading4 FPM	-	154
Reading5 FPM	-	182
Reading6 FPM	-	133
Reading7 FPM	-	147
Reading8 FPM	-	242
Reading9 FPM	-	196
Reading10 FPM	-	109
Reading11 FPM	-	166
Reading12 FPM	-	181
Ave FPM(corr)	-	163
CFM	1300	1361

Completed By: Zack Eismin on 06/09/2025

Unit Data - PHOTO LOG

06/09/2025

STRUCTIONS AND AS

ARCHITECTURAL AND
ED BY CHIPOTLE ON

1/M700. TYPICAL.
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AFF. TYPICAL.
6/M700. SEE ELECTRICAL
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SIDE OF ROOM AT

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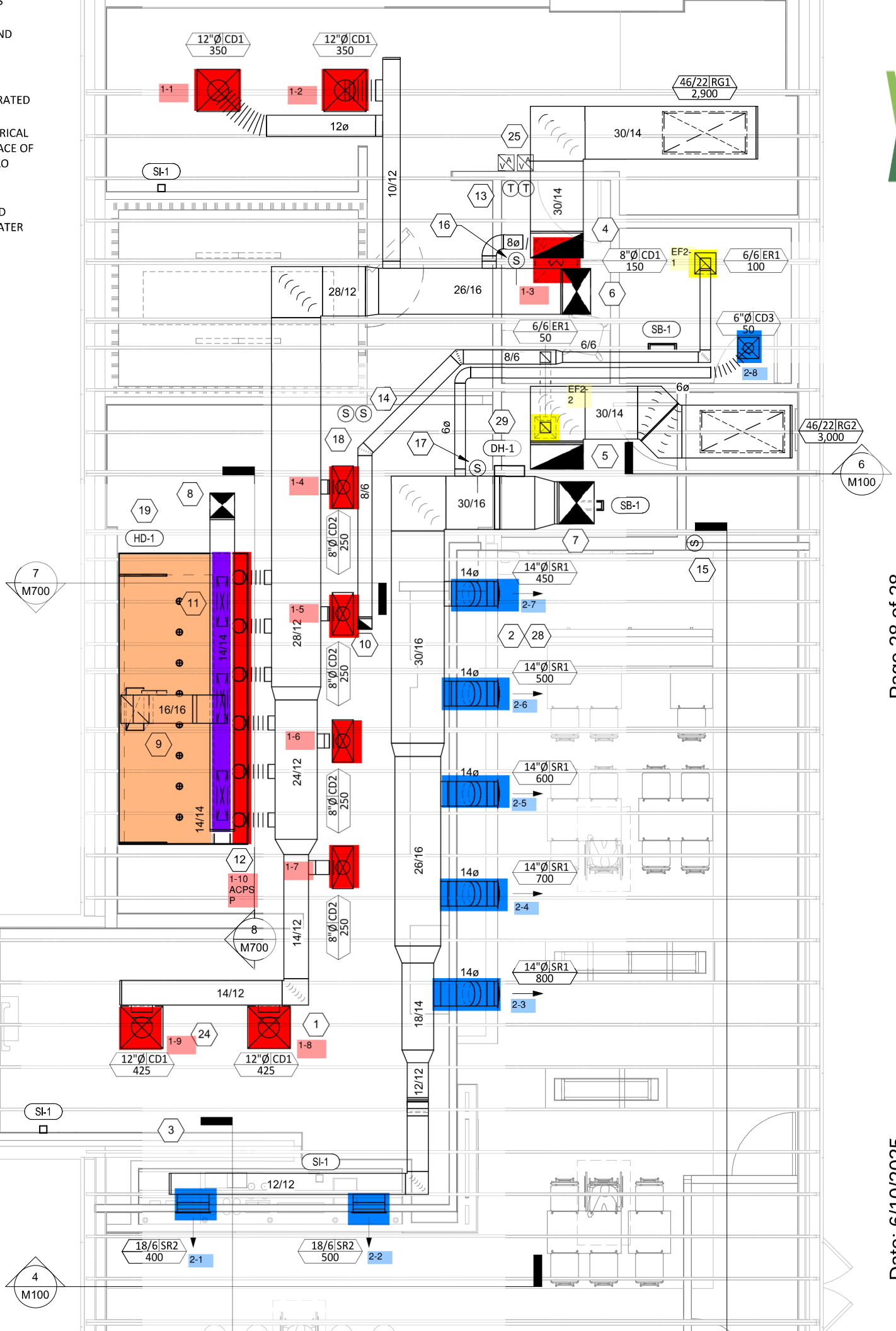

Date: 6/10/2025