Report by:
United T&B
7013 Flagler Rd,
Nordland,WA 98358

NATIONAL TAB

Comfort. Under control.

For:
National TAB
1329 E. Kemper Road
Suite 4210
Cincinnati, OH 45246

Report: FINAL TAB REPORT

Function: Test, Adjust, & Balance

Date: 11/14/2022

PROJECT

11-14 CHIPOTLE - SPANISH FORK #43-4049 (SPANISH FORK, UT)

841 E Highway 6

SPANISH FORK, UT 84660

Client

Chipotle Mexican Grill

1401 Wynkoop Street, Suite 500

Denver, CO 80202

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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.

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	3057	2900	2519	500	538	14.7%	17.6%						
RTU-2	DINING	3400	3206	2400	2183	1000	1023	29.4%	31.9%						
MUA-1	KITCHEN HOOD									1950	1951				
EF-1	KITCHEN HOOD											3200	3250		
EF-2	RESTROOM													150	162
TOTALS		6800	6263	5300	4702	1500	1561			1950	1951	3200	3250	150	162

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3450	3512
TOTAL EXHAUST	3350	3412
NET AIRFLOW	100	100

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0033
SIDE	0.0028
REAR	0.0018
AVERAGE	**0.0026**

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:

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Project Checklist

SYSTEM/UNIT: Project Checklist

Tested By: Clayton Nelson
Date: 11/10/2022

Inspection Data - Project Checklist

	Verification	Response	Notes	By	Date/Time
1	All diffusers and grilles are installed and match design?	No		CN	11/10/22 13:57
2	Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first)	Yes		CN	11/10/22 13:57
3	All hood filters installed and accounted for?	Yes		CN	11/10/22 13:57
4	Hoods are wired and have power?	Yes		CN	11/10/22 13:57
5	Hood is free of alarms?	Yes		CN	11/10/22 13:57
6	Thermostats have power?	Yes		CN	11/10/22 13:57
7	Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	Yes		CN	11/10/22 13:57

General - Project Checklist

	Verification	Response	Notes	By	Date/Time
1	Is space free of drafting?	Yes		CN	11/10/22 13:57
2	Is space comfortable in all areas?	Yes		CN	11/10/22 13:57
3	Is the space free of ventilation noise?	Yes		CN	11/10/22 13:57
4	If deviations from design were necessary to resolve 103 what were they? Otherwise put "NA"	Yes		CN	11/10/22 13:57

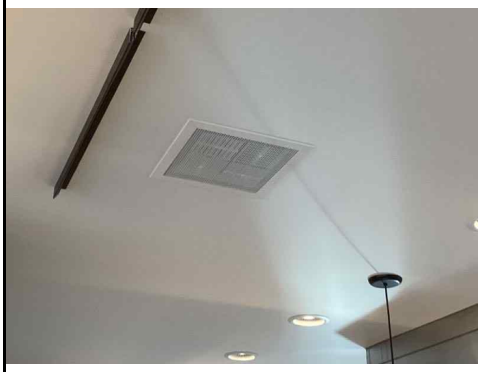
Project Issue Report

Issue ID:	0001	Status:	Corrected	Issue Priority:	
Equipment:	RTU-01/S-05				Created Date: 09-Nov-22
Area:	Service Line				Completed Date: 09-Nov-22

Issue Description:
Deflectors not removed per schedule.

Issue Type: Installation
Role Assignment: Mechanical Contractor
Comments / Signature:

Issue Photos:



Name: Deflectors not removed per schedule..jpg
Captured: 11/9/2022 1:37 PM

Issue ID:	0002	Status:	Corrected	Issue Priority:	
Equipment:	RTU-01/S-06				Created Date: 09-Nov-22
Area:	Service Line				Completed Date: 09-Nov-22

Issue Description:
Deflectors not removed per schedule.

Issue Type: Installation
Role Assignment: Mechanical Contractor
Comments / Signature:

Issue Photos:

Name: Deflectors not removed per schedule..jpg
Captured: 11/9/2022 1:37 PM

Project Issue Report

Issue ID:	0003	Status:	Corrected	Issue Priority:	
Equipment:	RTU-01/S-07				Created Date: 09-Nov-22
Area:	Service Line				Completed Date: 09-Nov-22

Issue Description:
Deflectors not removed per schedule.

Issue Type: Installation
Role Assignment: Mechanical Contractor
Comments / Signature:

Issue Photos:

Name: Deflectors not removed per schedule..jpg
Captured: 11/9/2022 1:38 PM

Issue ID:	0005	Status:	Accepted as is	Issue Priority:	
Equipment:	EF-02/E-01				Created Date: 09-Nov-22
Area:	RESTROOM				Completed Date: 10-Nov-22

Issue Description:
No OBD installed.

Issue Type: Installation
Role Assignment: Mechanical Contractor
Comments / Signature:

Issue Photos:

Name: Drawings show inlet to be a 6x6 grille. 5x5 is ins.jpg
Captured: 11/9/2022 1:51 PM

Project Issue Report

Issue ID:	0006	Status:	Accepted as is	Issue Priority:	
Equipment:	EF-02/E-02				Created Date: 09-Nov-22
Area:	RESTROOM				Completed Date: 10-Nov-22

Issue Description:
No OBD installed.

Issue Type: Installation
Role Assignment: Mechanical Contractor
Comments / Signature:

Issue Photos:

Name: Drawings show inlet to be a 6x6 grille. 5x5 is ins.jpg
Captured: 11/9/2022 1:53 PM

Issue ID:	0007	Status:	Open	Issue Priority:	
Equipment:					Created Date: 09-Nov-22

Issue Description:
T-stats not installed in wall. Gridpoint not yet installed.

Issue Type: Installation
Role Assignment: Mechanical Contractor
Comments / Signature:

Issue Photos:

Name: T-stats not installed in wall. Gridpoint not yet i.jpg
Captured: 11/9/2022 2:43 PM

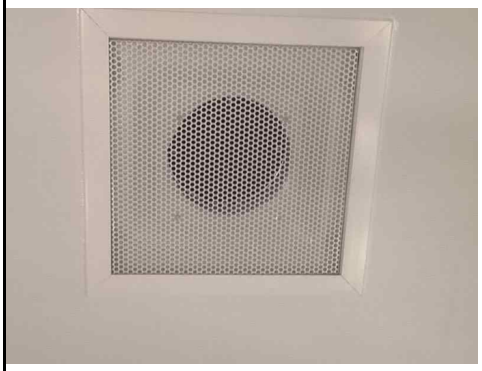
Project Issue Report

Issue ID:	0008	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-01				Created Date: 09-Nov-22
Area:	Office				
Issue Description:					
There is no damper installed.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

Issue ID:	0009	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-04				Created Date: 09-Nov-22
Area:	Kitchen				
Issue Description:					
There is no damper installed.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

Issue ID:	0010	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-05				Created Date: 09-Nov-22
Area:	Service Line				
Issue Description:					
No OBD installed. Unable to verify if there is a damper at the tap.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

Issue Photos:



Name: Integral OBD outlined in schedule not installed. U.jpg
Captured: 11/9/2022 3:04 PM

Project Issue Report

Issue ID:	0011	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-06				Created Date: 09-Nov-22
Area:	Service Line				

Issue Description:
No OBD installed. Unable to verify if there is a damper at the tap.

Issue Type: Installation
Role Assignment: Mechanical Contractor
Comments / Signature:

Issue Photos:

Name: Integral OBD outlined in schedule not installed. U.jpg
Captured: 11/9/2022 3:04 PM

Issue ID:	0012	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-07				Created Date: 09-Nov-22
Area:	Service Line				

Issue Description:
No OBD installed. Unable to verify if there is a damper at the tap.

Issue Type: Installation
Role Assignment: Mechanical Contractor
Comments / Signature:

Issue Photos:

Name: Integral OBD outlined in schedule not installed. U.jpg
Captured: 11/9/2022 3:04 PM

Project Issue Report

Issue ID:	0013	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-08				Created Date: 09-Nov-22
Area:	Service Line				

Issue Description:

No OBD installed. Unable to verify if there is a damper at the tap.

Issue Type:	Installation
Role Assignment:	Mechanical Contractor
Comments / Signature:	

Issue Photos:

Name:	Integral OBD outlined in schedule not installed. U.jpg
Captured:	11/9/2022 3:05 PM

Issue ID:	0014	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-05				Created Date: 09-Nov-22
Area:	Service Line				

Issue Description:

Duct is installed as a 6 inch and not an 8 inch, restricting the airflow.

Issue Type:	Installation
Role Assignment:	Mechanical Contractor
Comments / Signature:	

Issue Photos:

Name:	Drawings show design of 8” outlets. 6” outlets are.jpg
Captured:	11/9/2022 3:19 PM

Project Issue Report

Issue ID:	0015	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-06				Created Date: 09-Nov-22
Area:	Service Line				

Issue Description:

Duct is installed as a 6 inch and not an 8 inch, restricting the airflow.

Issue Type:	Installation
Role Assignment:	Mechanical Contractor
Comments / Signature:	

Issue Photos:

Name:	Drawings show design of 8” outlets. 6” outlet is i.jpg
Captured:	11/9/2022 3:23 PM

Issue ID:	0016	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-07				Created Date: 09-Nov-22
Area:	Service Line				

Issue Description:

Duct is installed as a 6 inch and not an 8 inch, restricting the airflow.

Issue Type:	Installation
Role Assignment:	Mechanical Contractor
Comments / Signature:	

Issue Photos:

Name:	Drawings show design of 8” outlets. 6” outlet is i.jpg
Captured:	11/9/2022 3:23 PM

Project Issue Report

Issue ID:	0017	Status:	Open	Issue Priority:	
Equipment:	RTU-01/S-08				Created Date: 09-Nov-22
Area:	Service Line				

Issue Description:

Duct is installed as a 6 inch and not an 8 inch, restricting the airflow.

Issue Type:	Installation
Role Assignment:	Mechanical Contractor
Comments / Signature:	

Issue Photos:

Name:	Drawings show design of 8” outlets. 6” outlet is i.jpg
Captured:	11/9/2022 3:24 PM

Air Apparatus

SYSTEM/UNIT: RTU-01

Tested By: Clayton Nelson
Date: 11/11/2022

Design Airflow (CFM)	
Design Total	3400
Design Grille Total	3100
Design Return	2900
Design Min O/A	500

Unit Design Data	
Submittal Make	Trane
Submittal Model #	YHC102
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	0.8
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	-

Filter Data	
Condition	Partially Loaded
Filter Type	Pleated
MERV Rating	-
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	2.75
Motor RPM	-
Motor Volts	-
Motor Phase	3

Final Airflow (CFM)	
Actual Total CFM	3057
Actual Grille Total CFM	3057
Actual Return Air CFM	2519
Actual Min O/A CFM	538
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Face Velocity/RVA
OA Ak (sq ft)	2.138
OA Damper Position	20% Open
RA Damper Position	80% Open

Unit Data	
Make (tag)	Trane
Model # (tag)	YHC102F3RLA26K7C1A2A
Serial # (tag)	221013337L
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	220
Fan Service	Supply
Fan Type	Centrifugal (FC)
Fan Discharge	Downblast
Fan Arrangement	DWDI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	45%
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	Not Accessible
Motor Volts 1	Internal to ECM
Motor Volts 2	-

Air Apparatus

SYSTEM/UNIT: RTU-01

Tested By: Clayton Nelson
Date: 11/11/2022

Motor Nameplate Data	
Motor Amps	7.3
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	Above data from unit tag

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	60.00
Approx. BHP	
Corr. Nameplate Amps	
Starter Data	Not Applicable
VFD Reference	Not Applicable

Make (tag) Photo:

Name: Make (tag).jpg
Captured: 11/9/2022 1:31 PM
Caption:

Air Apparatus

SYSTEM/UNIT: RTU-01

Tested By: Clayton Nelson
Date: 11/11/2022

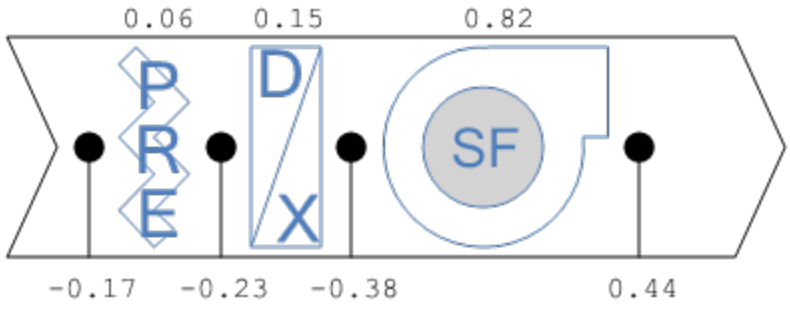
Inspection Data - RTU-01

	Verification	Response	Notes	By	Date/Time
1	IS ECONOMIZER BLANK PLATE INSTALLED BELOW THE OUTDOOR AIR FILTERS? (IF NO, REMOVE THE PIECE FROM UNDERNEATH THE COIL FILTER BANK AND INSTALL) Trane only (N/A = not applicable)	Yes		CN	11/9/22 17:30
2	Economizers are assembled and functional?	Yes		CN	11/9/22 17:30
3	DCV Max damper opening position is set to minimum?	Yes		CN	11/9/22 17:30
4	Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes		CN	11/9/22 17:30
5	Is the motor operating below the motor FLA rating?	Yes		CN	11/9/22 17:30
6	Belts are Tight?	NA		CN	11/9/22 17:30
7	If direct drive unit is the speed controller working.	Yes		CN	11/9/22 17:30
8	Gas piping is installed and valves are in on position?	Yes		CN	11/9/22 17:30
9	Unit free of noticeable noise and vibration?	Yes		CN	11/9/22 17:30

SYSTEM/UNIT: RTU-01/Static Profile

Tested By: Clayton Nelson
Date: 11/11/2022

Static Pressure Profile



Air Apparatus

RTU-01 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01*	Office	CD	8	150	283	304	203	Capture Hood	1.000	1.000	304
S-02	Kitchen	CD	10	300	368	259	86	Capture Hood	1.000	1.000	259
S-03	Kitchen	CD	10	300	474	253	84	Capture Hood	1.000	1.000	253
S-04*	Kitchen	CD	8	200	297	265	133	Capture Hood	1.000	1.000	265
S-05*	Service Line	CD	8	225	146	132	59	Capture Hood	1.000	1.000	132
S-06*	Service Line	CD	8	225	180	156	69	Capture Hood	1.000	1.000	156
S-07*	Service Line	CD	8	225	190	162	72	Capture Hood	1.000	1.000	162
S-08*	Service Line	CD	8	225	179	152	68	Capture Hood	1.000	1.000	152
S-09	Service Line	CD	14	450	597	563	125	Capture Hood	1.000	1.000	563
S-10	ACPSP	PSP	168x6	800	906	811	101	Velgrid	5.753	7.375	141
	Totals:	-	-	**3100**	**3620**	**3057**	**99**	-	-	-	-

Log:

RTU-01/S-01	11/9/2022	Clayton Nelson	There is no damper installed.
RTU-01/S-04	11/9/2022	Clayton Nelson	There is no damper installed.
RTU-01/S-05	11/9/2022	Clayton Nelson	No OBD installed. Unable to verify if there is a damper at the tap.
RTU-01/S-05	11/9/2022	Clayton Nelson	Duct is installed as a 6 inch and not an 8 inch, restricting the airflow.
RTU-01/S-06	11/9/2022	Clayton Nelson	No OBD installed. Unable to verify if there is a damper at the tap.
RTU-01/S-06	11/9/2022	Clayton Nelson	Duct is installed as a 6 inch and not an 8 inch, restricting the airflow.
RTU-01/S-07	11/9/2022	Clayton Nelson	No OBD installed. Unable to verify if there is a damper at the tap.
RTU-01/S-07	11/9/2022	Clayton Nelson	Duct is installed as a 6 inch and not an 8 inch, restricting the airflow.
RTU-01/S-08	11/9/2022	Clayton Nelson	No OBD installed. Unable to verify if there is a damper at the tap.
RTU-01/S-08	11/9/2022	Clayton Nelson	Duct is installed as a 6 inch and not an 8 inch, restricting the airflow.

Air Apparatus

SYSTEM/UNIT: RTU-02

Tested By: Clayton Nelson
Date: 11/11/2022

Design Airflow (CFM)	
Design Total	3400
Design Grille Total	3400
Design Return	2400
Design Min O/A	1000

Unit Design Data	
Submittal Make	Trane
Submittal Model #	YHC102
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	0.8
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	-

Filter Data	
Condition	Partially Loaded
Filter Type	Pleated
MERV Rating	-
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	2.75
Motor RPM	-
Motor Volts	208
Motor Phase	3

Final Airflow (CFM)	
Actual Total CFM	3206
Actual Grille Total CFM	3206
Actual Return Air CFM	2183
Actual Min O/A CFM	1023
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Face Velocity/RVA
OA Ak (sq ft)	4.499
OA Damper Position	45% Open
RA Damper Position	55% Open

Unit Data	
Make (tag)	Trane
Model # (tag)	YHC102F3RHA26K7C1A2A
Serial # (tag)	220711803L
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	231
Fan Service	Supply
Fan Type	Centrifugal (FC)
Fan Discharge	Downblast
Fan Arrangement	DWDI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	30%
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	Not Accessible
Motor Volts 1	Internal to ECM
Motor Volts 2	-

Air Apparatus

SYSTEM/UNIT: RTU-02

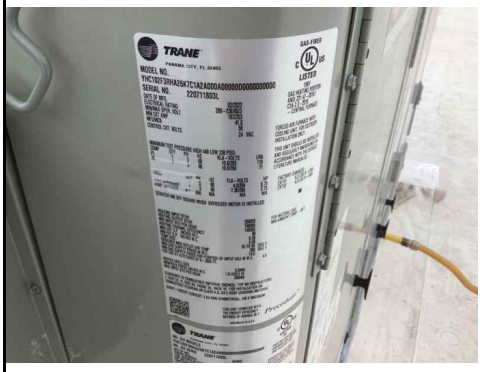
Tested By: Clayton Nelson
Date: 11/11/2022

Motor Nameplate Data	
Motor Amps	7.3
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	60.00
Approx. BHP	
Corr. Nameplate Amps	
Starter Data	Not Applicable
VFD Reference	Not Applicable

Make (tag) Photo:



Name: Make (tag).jpg
Captured: 11/9/2022 1:30 PM
Caption:

Air Apparatus

SYSTEM/UNIT: RTU-02

Tested By: Clayton Nelson
Date: 11/11/2022

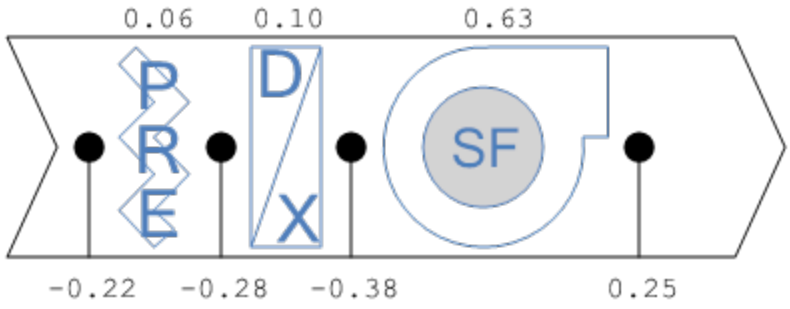
Inspection Data - RTU-02

	Verification	Response	Notes	By	Date/Time
1	IS ECONOMIZER BLANK PLATE INSTALLED BELOW THE OUTDOOR AIR FILTERS? (IF NO, REMOVE THE PIECE FROM UNDERNEATH THE COIL FILTER BANK AND INSTALL) Trane only (N/A = not applicable)	Yes		CN	11/9/22 17:18
2	Economizers are assembled and functional?	Yes		CN	11/9/22 17:18
3	DCV Max damper opening position is set to minimum?	Yes		CN	11/9/22 17:18
4	Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes		CN	11/9/22 17:18
5	Is the motor operating below the motor FLA rating?	Yes		CN	11/9/22 17:18
6	Belts are Tight?	NA		CN	11/9/22 17:18
7	If direct drive unit is the speed controller working.	Yes		CN	11/9/22 17:18
8	Gas piping is installed and valves are in on position?	Yes		CN	11/9/22 17:18
9	Unit free of noticeable noise and vibration?	Yes		CN	11/9/22 17:18

SYSTEM/UNIT: RTU-02/Static Profile

Tested By: Clayton Nelson
Date: 11/11/2022

Static Pressure Profile



Air Apparatus

RTU-02 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	Dining	SW	14	400	494	383	96	Capture Hood	1.000	1.000	383
S-02	Dining	SW	14	400	584	387	97	Capture Hood	1.000	1.000	387
S-03	Dining	SW	14	500	753	490	98	Capture Hood	1.000	1.000	490
S-04	Dining	SW	14	500	813	487	97	Capture Hood	1.000	1.000	487
S-05	Dining	SW	14	700	841	634	91	Capture Hood	1.000	1.000	634
S-06	Dining	SW	18/6	500	504	461	92	Capture Hood	0.545	0.649	846
S-07	Dining	SW	18/6	400	401	364	91	Capture Hood	0.545	0.649	668
	Totals:	**-**	**-**	**3400**	**4390**	**3206**	**94**	**-**	**-**	**-**	**-**

Fan

SYSTEM/UNIT: EF-01

Tested By: Clayton Nelson
Date: 11/11/2022

Design Airflow (CFM)	
Design Airflow	3200
Design Grille Airflow	Not Applicable

Unit Design Data	
Submittal Make	CAPTIVEAIRE
Submittal Model #	NCA24HPFA
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	2
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	1.20
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	TECO
Motor Frame (tag)	213T
Motor HP (tag)	3
Motor RPM (tag)	1175
Motor Volts (tag)	230
Motor Phase (tag)	3
Motor Amps (tag)	9.2
Motor S.F. (tag)	1.15
Mtr % PF (tag)	-
Mtr % Eff. (tag)	88.6
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	3250
Actual Grille Airflow	Not Applicable
Fan CFM Test Method	See Kitchen Hood Sheet
Test Method Ak (sq ft)	-

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DU240HFA
Serial # (tag)	5024088
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (BI)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	Single Speed
Actual Motor RPM	Not Accessible
Speed Cont. Position	Not Applicable

Electrical Data	
Measurement Method	VFD Display
Motor Volts 1	143
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	5.3
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	37.4
Starter Data	Internal to VFD
Approx. BHP	1.07

Fan

SYSTEM/UNIT: EF-01

Tested By: Clayton Nelson
Date: 11/11/2022

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Corr. Nameplate Amps	14.8

Motor Make (tag) Photo:

Name: Motor Make (tag).jpg
Captured: 11/9/2022 1:28 PM
Caption:

Make (tag) Photo:

Name: Make (tag).jpg
Captured: 11/9/2022 1:28 PM
Caption:

Fan

SYSTEM/UNIT: EF-01

Tested By: Clayton Nelson
Date: 11/11/2022

Inspection Data - EF-01

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		CN	11/9/22 14:25
2	Belts are Tight?	NA		CN	11/9/22 14:25
3	Internal motorized damper is fully opening?	NA		CN	11/9/22 14:25
4	Motor is operating below the FLA rating?	Yes		CN	11/9/22 14:25
5	Unit free of noticeable noise and vibration?	Yes		CN	11/9/22 14:25
6	There is no major leakage around base of fan?	Yes		CN	11/9/22 14:25
7	Is the motor operating below the motor FLA rating?	Yes		CN	11/9/22 14:25

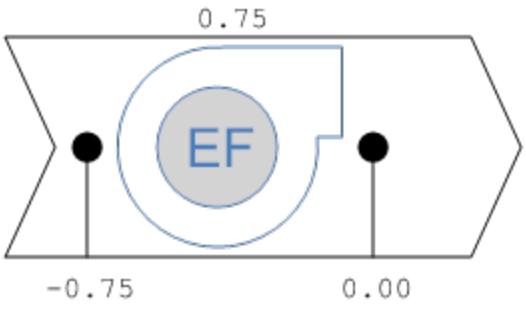
HVAC Units / Fans - EF-01

	Verification	Response	Notes	By	Date/Time
1	Grease cup is installed on hood fan?	Yes		CN	11/9/22 16:48
2	Hinge kit installed on hood fan.	Yes		CN	11/9/22 16:48
3	Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Yes		CN	11/9/22 16:48
4	Flex conduit is long enough so that fan can be completely tilted back?	Yes		CN	11/9/22 16:48

SYSTEM/UNIT: EF-01/Static Profile

Tested By: Clayton Nelson
Date: 11/11/2022

Static Pressure Profile



Fan

SYSTEM/UNIT: EF-01/HD-01

Tested By: Clayton Nelson
Date: 11/11/2022

Design Airflow (CFM)	
Design Exhaust CFM	3200

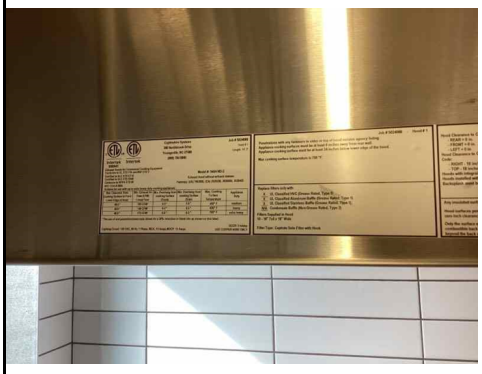
Final Airflow (CFM)	
Actual Exhaust CFM	3250

Test Section	
Smoke Generation Type	Smoke Emitter
Cooking Equip Heat On	No
Hood Capture %	100
End Panels Installed (Y/N)	Y

Supplemental Data	
Space Offset Temp Riser 1	15
Space Offset Temp Riser 2	15
Riser Temp F (idle) Riser 1	66.5
Riser Temp F (idle) Riser 2	60.9
Ambient Room Temp	66.7
100% override functional	N

Kitchen Hood Information	
Service	Fryer, stove, grille
Manufacturer	Captive-Aire
Model Number	5424 ND-2
Serial Number	5024088
Test Method	Filters

Manufacturer Photo:



Name: Manufacturer.jpg
Captured: 11/9/2022 1:54 PM
Caption:

Fan

SYSTEM/UNIT: EF-01/HD-01

Tested By: Clayton Nelson
Date: 11/11/2022

Verification - EF-01/HD-01

	Verification	Response	Notes	By	Date/Time
1	Third Party Company	Robert Vavrin		CN	11/9/22 16:31
2	Tech Company	UTAB		CN	11/9/22 14:24

Prefunctional - EF-01/HD-01

	Verification	Response	Notes	By	Date/Time
1	Kitchen equipment installed in proper places?	Yes		CN	11/9/22 13:55
2	Can kitchen equipment be turned on for final smoke test?	No		CN	11/9/22 13:55

Remarks

Equipment Under Hood (List All)

Fryer, stove, grille

EF-01/HD-01 Exhaust Filter Summary

System/Unit	Size	Type	Ak	Reading 2	Reading 1	FPM	Instrument	CFM
Filter-01	16x16	Baffle	1.62		198	198	Velgrid	321
Filter-02	16x16	Baffle	1.62		201	201	Velgrid	326
Filter-03	16x16	Baffle	1.62		200	200	Velgrid	324
Filter-04	16x16	Baffle	1.62		194	194	Velgrid	314
Filter-05	16x16	Baffle	1.62		195	195	Velgrid	316
Filter-06	16x16	Baffle	1.62		200	200	Velgrid	324
Filter-07	16x16	Baffle	1.62		203	203	Velgrid	329
Filter-08	16x16	Baffle	1.62		196	196	Velgrid	318
Filter-09	16x16	Baffle	1.62		205	205	Velgrid	332
Filter-10	16x16	Baffle	1.62		214	214	Velgrid	347
Totals:	-	-	-	-	-	-	-	**3250**

Fan

SYSTEM/UNIT: EF-02

Tested By: Clayton Nelson
Date: 11/11/2022

Design Airflow (CFM)	
Design Airflow	150
Design Grille Airflow	150

Unit Design Data	
Submittal Make	CAPTIVEAIRE
Submittal Model #	DR12HFA
Submittal Airflow	Not Provided
Sched./Sub. Volts	120
Sched./Sub. Phase	1
Sched./Sub. HP	0.18
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	.60
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	NEMA
Motor Frame (tag)	-
Motor HP (tag)	1/4
Motor RPM (tag)	1800
Motor Volts (tag)	115
Motor Phase (tag)	1
Motor Amps (tag)	2.9
Motor S.F. (tag)	-
Mtr % PF (tag)	-
Mtr % Eff. (tag)	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	162
Actual Grille Airflow	162
Fan CFM Test Method	Inlet Total
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DR12HFA
Serial # (tag)	5024388
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (BI)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	859
Actual Motor RPM	Not Accessible
Speed Cont. Position	48%

Electrical Data	
Measurement Method	V/A Meter
Motor Volts 1	118
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	0.3
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	60.0
Starter Data	Not Applicable
Approx. BHP	0.03

Fan

SYSTEM/UNIT: EF-02

Tested By: Clayton Nelson
Date: 11/11/2022

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Corr. Nameplate Amps	2.8

Motor Make (tag) Photo:

Name: Motor Make (tag).jpg
Captured: 11/9/2022 4:57 PM
Caption:

Make (tag) Photo:

Name: Make (tag).jpg
Captured: 11/9/2022 1:31 PM
Caption:

Fan

SYSTEM/UNIT: EF-02

Tested By: Clayton Nelson
Date: 11/11/2022

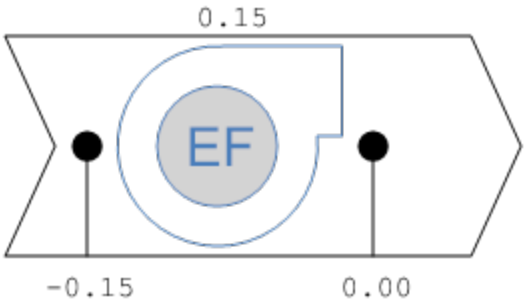
Inspection Data - EF-02

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		CN	11/9/22 16:57
2	Belts are Tight?	NA		CN	11/9/22 16:57
3	Internal motorized damper is fully opening?	NA		CN	11/9/22 16:57
4	Motor is operating below the FLA rating?	Yes		CN	11/9/22 16:57
5	Unit free of noticeable noise and vibration?	Yes		CN	11/9/22 16:57
6	There is no major leakage around base of fan?	Yes		CN	11/9/22 16:57
7	Is the motor operating below the motor FLA rating?	Yes		CN	11/9/22 16:57
8	Back draft damper installed and can it fully open?	Yes		CN	11/9/22 16:57

SYSTEM/UNIT: EF-02/Static Profile

Tested By: Clayton Nelson
Date: 11/11/2022

Static Pressure Profile



EF-02 Exhaust Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	RESTROOM	CD	6/6	75	82	82	109	Capture Hood	1.000	1.000	82
E-02	RESTROOM	CD	6/6	75	80	80	107	Capture Hood	1.000	1.000	80
	Totals:	-	-	**150**	**162**	**162**	**108**	-	-	-	-

Fan

SYSTEM/UNIT: MAU-01

Tested By: Clayton Nelson
Date: 11/11/2022

Design Airflow (CFM)	
Design Airflow	1950
Design Grille Airflow	Not Applicable

Unit Design Data	
Submittal Make	CAPTIVEAIRE
Submittal Model #	A1-D.250-G10
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	2
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	.80
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	TECO
Motor Frame (tag)	145T
Motor HP (tag)	2
Motor RPM (tag)	1740
Motor Volts (tag)	230
Motor Phase (tag)	3
Motor Amps (tag)	5.48
Motor S.F. (tag)	1.15
Mtr % PF (tag)	-
Mtr % Eff. (tag)	88.5
Other Motor Data	

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	1951
Actual Grille Airflow	Not Applicable
Fan CFM Test Method	See Kitchen Hood Sheet
Test Method Ak (sq ft)	-

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	A1-D.250-15D
Serial # (tag)	5024088
Unit Location	Roof
Unit Discharge	Downblast
Fan Service	Make-Up Air
Fan Type	Centrifugal (FC)
Fan Discharge	Downblast
Fan Arrangement	DWDI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	Single Speed
Actual Motor RPM	Not Accessible
Speed Cont. Position	Not Applicable

Electrical Data	
Measurement Method	VFD Display
Motor Volts 1	Internal to ECM
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	5.3
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	73.6
Starter Data	Internal to VFD
Approx. BHP	

Fan

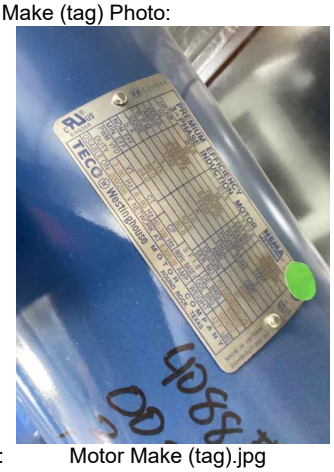
SYSTEM/UNIT: MAU-01

Tested By: Clayton Nelson
Date: 11/11/2022

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

Motor Make (tag) Photo:



Name: Motor Make (tag).jpg
Captured: 11/9/2022 1:27 PM
Caption:

Make (tag) Photo:

Name: Make (tag).jpg
Captured: 11/9/2022 1:27 PM
Caption:

Fan

SYSTEM/UNIT: MAU-01

Tested By: Clayton Nelson
Date: 11/11/2022

Inspection Data - MAU-01

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		CN	11/9/22 14:35
2	Belts are Tight?	NA		CN	11/9/22 14:35
3	Internal motorized damper is fully opening?	Yes		CN	11/9/22 14:35
4	Motor is operating below the FLA rating?	Yes		CN	11/9/22 14:35
5	Unit free of noticeable noise and vibration?	Yes		CN	11/9/22 14:35
6	There is no major leakage around base of fan?	Yes		CN	11/9/22 14:35
7	Is the motor operating below the motor FLA rating?	Yes		CN	11/9/22 14:35

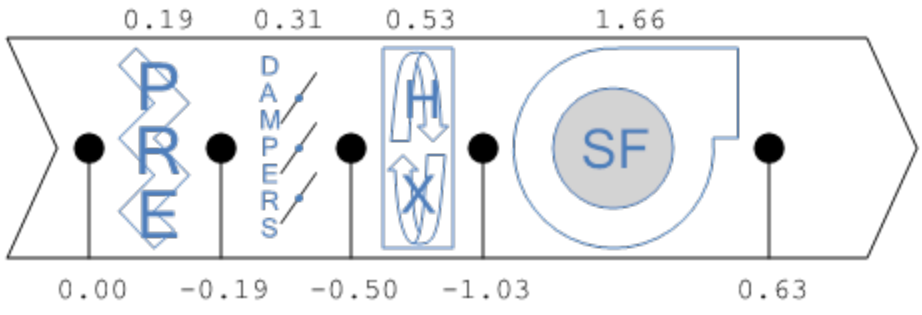
Heat Exchangers - MAU-01

	Verification	Response	Notes	By	Date/Time
1	Gas piping is installed and valves are in on position?	Yes		CN	11/9/22 14:35
2	Heater tested and is functional?	Yes		CN	11/9/22 14:35
3	Heater Operates?	Yes		CN	11/9/22 14:35
4	Flame Status?	Yes		CN	11/9/22 14:35
5	Inlet Air Temp SetPt (Design 55)	55		CN	11/9/22 16:45
6	Discharge Air Temp SetPt (Design 60)	60		CN	11/9/22 16:45
7	Air Flow Switch Sp Actual	.53		CN	11/9/22 16:45

SYSTEM/UNIT: MAU-01/Static Profile

Tested By: Clayton Nelson
Date: 11/11/2022

Static Pressure Profile



Fan

SYSTEM/UNIT: MAU-01/HD-01

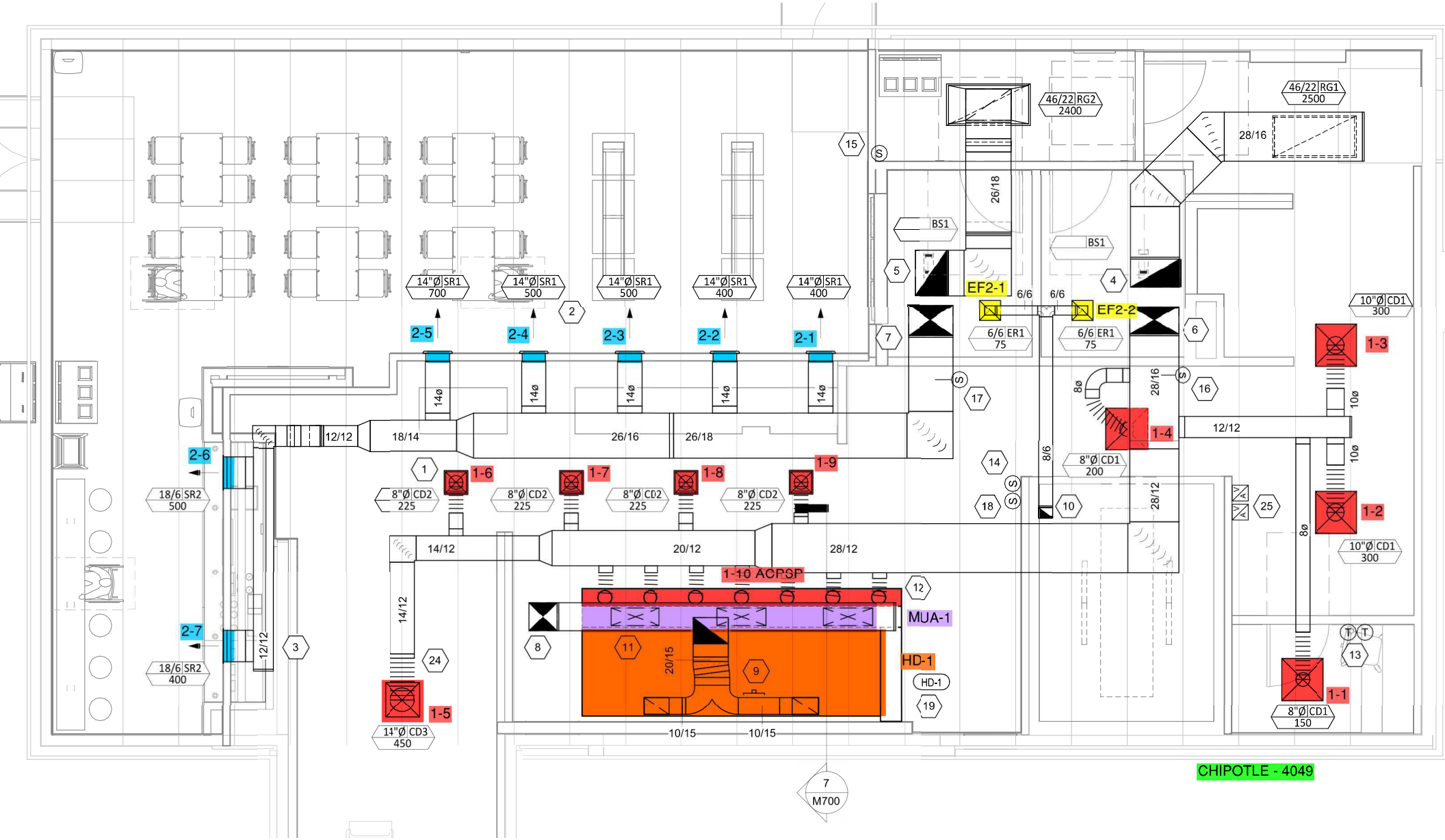
Tested By: Clayton Nelson
Date: 11/11/2022

Design Airflow (CFM)	
Des. Make-up Air	1950

Final Airflow (CFM)	
Act. Make-up Air	1996

Kitchen Hood Information	
Manufacturer	Captive-Aire
Test Method	Perforated Supply

Test Data	
PSP Length (in)	177
PSP Width (in)	12"
Correction Factor	0.83
Total MA Ak (sq ft)	12.24
Avg. MA Velocity (FPM)	163


46/22 RG2
2400
46/22 RG1
2500
28/16
15
S
26/18
BS1
BS1
5
EF2-1
6/6
6/6
EF2-2
4
7
6/6 ER1
75
6/6 ER1
75
6
10"Ø CD1
300
1-3
14"Ø SR1
700
14"Ø SR1
500
14"Ø SR1
500
14"Ø SR1
400
14"Ø SR1
400
2
2-5
2-4
2-3
2-2
2-1
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17
28/16
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16
8ø
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1-4
12/12
12/12
18/14
26/16
26/18
8/6
8"Ø CD1
200
14
2-6
1
1-6
1-7
1-8
1-9
18/6 SR2
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8"Ø CD2
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8"Ø CD2
225
8"Ø CD2
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300
14/12
20/12
28/12
1-10 ACPSP
12
MUA-1
2-7
14/12
12/12
3
8
11
20/15
9
HD-1
HD-1
19
18/6 SR2
400
24
1-5
14"Ø CD3
450
10/15
10/15
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13
1-1
8"Ø CD1
150
7
M700
CHIPOTLE - 4049