

Report By:

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



Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 05/14/2025
Completed By: National TAB

PROJECT
Carmello's (Covington, KY)

434 Madison Ave

Covington, KY 41011

Client

FG Schaefer

National TAB

Project: Carmello's (Covington, KY)

Table Of Contents

Section	Page #
Certification	3
Equipment Calibrations	4
Abbreviations	5
AHU/RTU	6
FAN - Supply	11
FAN - Exhaust	12
Kitchen Hood Type I	13
SDV Report	16



CERTIFICATION



PROJECT: Carmello's (Covington, KY)

The data presented in this report is a record of system measurements and final adjustments that have been obtained in accordance with the current edition of the NEBB *Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems*. Any variances from design quantities, which exceed NEBB tolerances, are noted in the Test-Adjust-Balance Report Project Summary.

The air distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

NEBB TAB FIRM: National TAB

REGISTRATION NO: 3629

CERTIFIED BY: Joe Hertenstein

DATE: 5/14/2025

The hydronic distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

NEBB TAB FIRM: National TAB

REGISTRATION NO: 3629


CERTIFIED BY: Joe Hertenstein

DATE: _____

Submitted and Certified by:

NEBB TAB FIRM: National TAB

TAB PROFESSIONAL: Joe Hertenstein

SIGNATURE: 

REGISTRATION NO: 3629

CERTIFICATION EXP: 12/31/2025





National TAB



Testing, Adjusting, and Balancing Equipment

INTELLIGENCE

Function		Range	Minimum Accuracy	Instrument Information	Calibration Date	Date Due
AIR	AIR PRESSURE	0 in wg to 10 in wg	2% +/- 0.001 in wg	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
	AIR VELOCITY INSTRUMENT	50 fpm to 3900 fpm	+/- 5 % +/- 7 fpm	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
	DIRECT HOOD READING	100 cfm to 2000 cfm	+/- 5 % +/- 7 cfm	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
TEMPERATURE	AIR METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	AIR PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 5028	7/12/2024	7/12/2025
	IMMERSION METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	IMMERSION PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 1075	7/12/2024	7/12/2025
	CONTACT METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	CONTACT PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 4011	7/12/2024	7/12/2025
HUMIDITY	HUMIDITY PROBE	10 % RH to 90 % RH	3% of reading	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
ELECTRICAL	VOLTAGE MEASUREMENT	0 VAC to 600 VAC	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	7/12/2024	7/12/2025
	AMPERAGE MEASUREMENT	0 Amperes to 100 Amperes	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	7/12/2024	7/12/2025
ROTATION	ROTATION MEASUREMENT	60 rpm to 5000 rpm	2 % reading 2 rpm	SHIMPO DT-207LR S/N: D1530081R	7/12/2024	7/12/2025
HYDRONIC	PRESSURE MEASUREMENT	-30 in Hg to 200 psi	±2% of reading +/- 1 psi	Alnor HM680 S/N: 70807241	5/11/2024	5/31/2025
	DIFFERENTIAL PRESSURE MEASUREMENT	0 psi - 80 psi	±2% of reading +/- 1 psi	Alnor HM680 S/N: 70807241	5/11/2024	5/31/2025



Abbreviation List

A = Area (ft ²)	S.F. = Service Factor
AHU = Air Handling Unit	SF = Supply Fan
A _k = Effective Area	SP = Static Pressure
BHP = Brake Horsepower (IP) HP	SR = Supply Register
Btu = British Thermal Unit	T = Temperature
Btu/h = Btuh = BTUH = BTU/Hour	T _{ma} = Mixed Air Temperature
CL = Center Distance (used in belt formula)	T _{oa} = Outside Air Temperature
CD = Ceiling Diffuser	T _{ra} = Return Air Temperature
CF = Correction Factor	H = Head (in wc, ft wc, psi)
CFM = Volumetric Flow: Cubic Feet Per Minute	h = Enthalpy
CO ₂ = Carbon Dioxide	HP = Horsepower
CO = Carbon Monoxide	hr = Hour
C _v = Flow Constant	K _v = Flow constant (SI)
d = Diameter (in.) IP	kW = Kilowatt = 1000 Watts
Δ = Difference or Change (Final - Initial)	LAT = Leaving Air Temperature
DB = Dry Bulb	lb = Pounds
EA = Exhaust Air	LWT = Leaving Water Temperature
EAT = Entering Air Temperature	ma = Mixed Air
EF = Exhaust Fan	MIN = Minimum
Eff = Efficiency	MAX = Maximum
EG = Exhaust Grille	N/A = Not Applicable
ESP = External Static Pressure	NA = No Access
EWT = Entering Water Temperature	NL = Not Listed
°F = Degrees Fahrenheit, °F	NPSHA = Net Positive Suction Head Available
FPB = Fan Powered Box	NS = Not Specified
FLA = Full Load Amps	OA = Outside Air
fpm = Feet per Minute (fpm)	OAT = Outside Air Temperature
ft = Foot	PD = Sheave Pitch Diameter
gal = Gallons	P.D. = Pressure Drop
GPM = Gallons Per Minute (GPM)	PF = Power Factor
h = Enthalpy (BTU/lb dry air)	SG = Supply Grille
P = Pressure	SR = Supply Register
ppm = parts per million	TP = Total Pressure
psi = Pounds Per Square Inch	T _{ra} = Return Air Temperature
psid = PSI Differential	TS = Tip Speed (fpm) IP, (m/s) SI
r = Radius (in)	TSP = Total Static Pressure
% _{ra} = % of Return Air	V = Velocity
RA = Return Air	VAV = Variable Air Volume
RAT = Return Air Temperature	VD = Volume Damper
RF = Return Fan	VFD = Variable Frequency Drive
RG = Return Grille	W = Watt
RH = Relative Humidity	WB = Wet Bulb
RPM = Revolutions Per Minute	wg = wc = water gauge = water column
RTU = Roof Top Unit	WHP = Water Horsepower (IP)
SA = Supply Air	ω = Humidity Ratio

National TAB

Project: Carmello's (Covington, KY)

System/Unit: AHU/RTU



Asset: AHU1

AREA:SERVICE CORRIDOR

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	141201-10-2
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	-	HORIZONTAL

Test Data		
	Design	Actual
SF CFM	2000	1665
RA CFM	1860	1545
OA CFM	140	120
RL Voltage	-	480
RL Amperage	-	1.0
OA Damper Position	-	0.50"

Motor Data		
	Design	Actual
Motor MFG	-	GE
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	480	480
Rated Amperage	-	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	NA
Motor Bore Size	NA
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NA
Num of Belts	1
Belt Size	A28

Completed By: Austin McFall on 05/13/2025

National TAB

Project: Carmello's (Covington, KY)
System/Unit: AHU/RTU



Asset: AHU2

AREA:110D

Unit Data		
	Design	Actual
MFG	CARRIER	Carrier
Serial Num	-	141201-10-5
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	-	Horizontal

Test Data		
	Design	Actual
SF CFM	1600	1660
RA CFM	1860	1528
OA CFM	140	132
RL Voltage	-	480
RL Amperage	-	1.0
OA Damper Position	-	0.50"

Motor Data		
	Design	Actual
Motor MFG	-	GE
Horsepower	-	0.5
Motor Rpm	-	1725
Phase	-	3
Rated Voltage	-	480
Rated Amperage	-	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	NOT ACCESSIBLE
Motor Bore Size	NOT ACCESSIBLE
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NOT ACCESSIBLE
Num of Belts	1
Belt Size	A28

Completed By: Austin McFall on 05/13/2025

Notes:
[1] BELT IS WORN, REPLACEMENT BELT WAS INSTALLED

Written By: Austin McFall on 04/14/2025

National TAB

Project: Carmello's (Covington, KY)
System/Unit: AHU/RTU



Asset: AHU3

AREA: WINE LOCKERS

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	-	HORIZONTAL

Test Data		
	Design	Actual
SF CFM	1200	1125
RA CFM	940	875
OA CFM	260	250
RL Voltage	-	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Motor Data		
	Design	Actual
Motor MFG	-	GE
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	480	480
Rated Amperage	1.1	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NA
Num of Belts	1
Belt Size	A28

Completed By: Austin McFall on 05/13/2025

National TAB

Project: Carmello's (Covington, KY)
System/Unit: AHU/RTU



Asset: AHU4

AREA:109A

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	HORIZONTAL	HORIZONTAL
Final Filter Size 1	-	

Test Data		
	Design	Actual
SF CFM	1600	1832
RA CFM	1460	1700
OA CFM	140	132
RL Voltage	-	480
RL Amperage	-	1.1
OA Damper Position	-	0.625"

Motor Data		
	Design	Actual
Motor MFG	-	GE
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	480	480
Rated Amperage	-	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NA
Num of Belts	1
Belt Size	A28

Completed By: Austin McFall on 05/13/2025

National TAB

Project: Carmello's (Covington, KY)
System/Unit: AHU/RTU



Asset: AHU5

AREA:100F

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	HORIZONTAL	HORIZONTAL

Test Data		
	Design	Actual
SF CFM	2000	2117
RA CFM	1840	1969
OA CFM	160	148
RL Voltage	-	480
RL Amperage	-	1.1
OA Damper Position	-	0.625"

Motor Data		
	Design	Actual
Motor MFG	-	GE
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	480	480
Rated Amperage	-	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NA
Num of Belts	1
Belt Size	A28

Completed By: Austin McFall on 05/13/2025

National TAB

Project: Carmello's (Covington, KY)
System/Unit: FAN - Supply



Asset: SF1

AREA:111B

Unit Data		
	Design	Actual
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	A3-24D	A3-24D
Serial Num	-	6785838
Type	MUA	MUA
Configuration	HORIZONTAL	HORIZONTAL

Test Data		
	Design	Actual
CFM	7000	6433
SF RPM	1553	1599
RL Voltage	-	485 AVG
RL Amperage	-	9.2 AVG

Motor Data		
	Design	Actual
Motor MFG	-	ODP,PREMIUM
Horsepower	10.00	10
Motor Rpm	1755	1755
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	12.2
Service Factor	-	1.15

Completed By: Austin McFall on 05/13/2025

National TAB
 Project: Carmello's (Covington, KY)
System/Unit: FAN - Exhaust



Asset: KEF1

AREA:ROOF/KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	USBI30DD-RM	USBI30DD-RM
Serial Num	-	6785838
Type	UTILITY	UTILITY SET

Test Data		
	Design	Actual
CFM	6000	6519
RL Voltage	-	388 AVG
RL Amperage	-	8.1 AVG

Motor Data		
	Design	Actual
Horsepower	5.00	5.0
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	9.6
Service Factor	-	

Completed By: Austin McFall on 04/14/2025

National TAB

Project: Carmello's (Covington, KY)

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	6024	6024
Job / Serial Num	-	6785838
Type	CANNOPY	TYPE I CANOPY
Hood length	10'	120"
Hood Width	54"	54"
Supply Plenum Type	-	PSP
Supply Plenum Width	16"	16"
Supply Plenum Length	120"	120"

Test Data Supply		
	Design	Actual
Total Area	1920"	13.33
Kv factor (Vel)	0.88	0.88
Num of Readings	-	10
Reading1 FPM	-	127
Reading2 FPM	-	131
Reading3 FPM	-	130
Reading4 FPM	-	128
Reading5 FPM	-	139
Reading6 FPM	-	158
Reading7 FPM	-	132
Reading8 FPM	-	144
Reading9 FPM	-	147
Reading10 FPM	-	166
Ave FPM(corr)	-	140
CFM	1848	1644

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16"X16"	16X16
Filter Qty 1	7	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	11.34
Filter1 FPM	-	192
Filter2 FPM	-	191
Filter3 FPM	-	201
Filter4 FPM	-	195
Filter5 FPM	-	201
Filter6 FPM	-	194
Filter7 FPM	-	187
Filter Ave FPM(corr)	-	193
CFM	2200	2189

Cooking Equipment	
	Actual
Item 1	CHAR
Item 2	GRIDDLE
Item 3	SALAMANDER
Item 4	OVEN

Completed By: Austin McFall on 04/14/2025

National TAB

Project: Carmello's (Covington, KY)

System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	6024	6024
Job / Serial Num	-	6785838
Type	CANNOPY	TYPE I CANOP
Hood length	10' 6"	126"
Hood Width	54"	54"
Supply Plenum Type	-	PSP
Supply Plenum Width	16"	16"
Supply Plenum Length	126"	126"

Test Data Supply		
	Design	Actual
Total Area	2016"	14
Kv factor (Vel)	0.88	0.88
Num of Readings	-	10
Reading1 FPM	-	166
Reading2 FPM	-	149
Reading3 FPM	-	152
Reading4 FPM	-	159
Reading5 FPM	-	172
Reading6 FPM	-	152
Reading7 FPM	-	133
Reading8 FPM	-	155
Reading9 FPM	-	160
Reading10 FPM	-	169
Ave FPM(corr)	-	157
CFM	1728	1934

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16"X16"	16"X16"
Filter Qty 1	7	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	11.34
Filter1 FPM	-	207
Filter2 FPM	-	185
Filter3 FPM	-	209
Filter4 FPM	-	221
Filter5 FPM	-	204
Filter6 FPM	-	188
Filter7 FPM	-	185
Filter Ave FPM(corr)	-	201
CFM	1942	2279

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	RANGE
Item 3	PASTA COOKER
Item 4	
Item 5	

Completed By: Austin McFall on 04/14/2025

National TAB

Project: Carmello's (Covington, KY)

System/Unit: Kitchen Hood Type I



Asset: HD3

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	6024	6024
Job / Serial Num	-	6785838
Type	CANNOPY	TYPE I CANOPY
Hood length	10'	120"
Hood Width	54"	54"
Supply Plenum Type	-	PSP
Supply Plenum Width	16"	16"
Supply Plenum Length	132"	132"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16"X16"	16"X16"
Filter Qty 1	7	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	11.34
Filter1 FPM	-	166
Filter2 FPM	-	186
Filter3 FPM	-	196
Filter4 FPM	-	202
Filter5 FPM	-	180
Filter6 FPM	-	176
Filter7 FPM	-	161
Filter Ave FPM(corr)	-	181
CFM	1850	2051

Cooking Equipment	
	Actual
Item 1	RANGE
Item 2	RANGE
Item 3	KETTLE
Item 4	
Item 5	

Test Data Supply		
	Design	Actual
Total Area	2112"	14.67
Kv factor (Vel)	0.88	0.88
Num of Readings	-	10
Reading1 FPM	-	156
Reading2 FPM	-	133
Reading3 FPM	-	141
Reading4 FPM	-	159
Reading5 FPM	-	144
Reading6 FPM	-	147
Reading7 FPM	-	132
Reading8 FPM	-	137
Reading9 FPM	-	141
Reading10 FPM	-	159
Ave FPM(corr)	-	145
CFM	1646	1871

Completed By: Austin McFall on 04/14/2025

SDV Job #: 6962508 - Carmelos V2 (Odd Fellows) KY

Service Region: 361 - Cincinnati OH Service
Service Person: Travis Huff

Customer Number: 866644 **Customer Name:** NATIONAL TAB

Address: CARMELO'S
434 MADISON AVENUE
Covington, KY 41011

Region Job #: 6785838
Region Job Name: Carmelos V2 (Odd Fellows) KY

Sales Region: 120 - Air Solutions
Sales Person: Joe Hertenstein

Created By: Travis Huff **Creation Date:** 10/16/2024 3:10 PM
Last Modified By: Travis Huff **Last Modified Date:** 10/21/2024 4:09 PM

Dining Room Pressure: 0 **Kitchen Pressure:** 0
Hours On Job: 0 **Extra Hours:** 0

Completed: Yes **Completed By:** Travis Huff
Completion Date: 10/21/2024 4:09 PM

Job Site Meeting

NONE

Hood Group 1

Exhaust CFM: Design = 5992 Initial = 6001 Final = 5967 (99.6% of design)
Supply CFM: Design = 5222 Initial = 4806 Final = 5163 (98.9% of design)

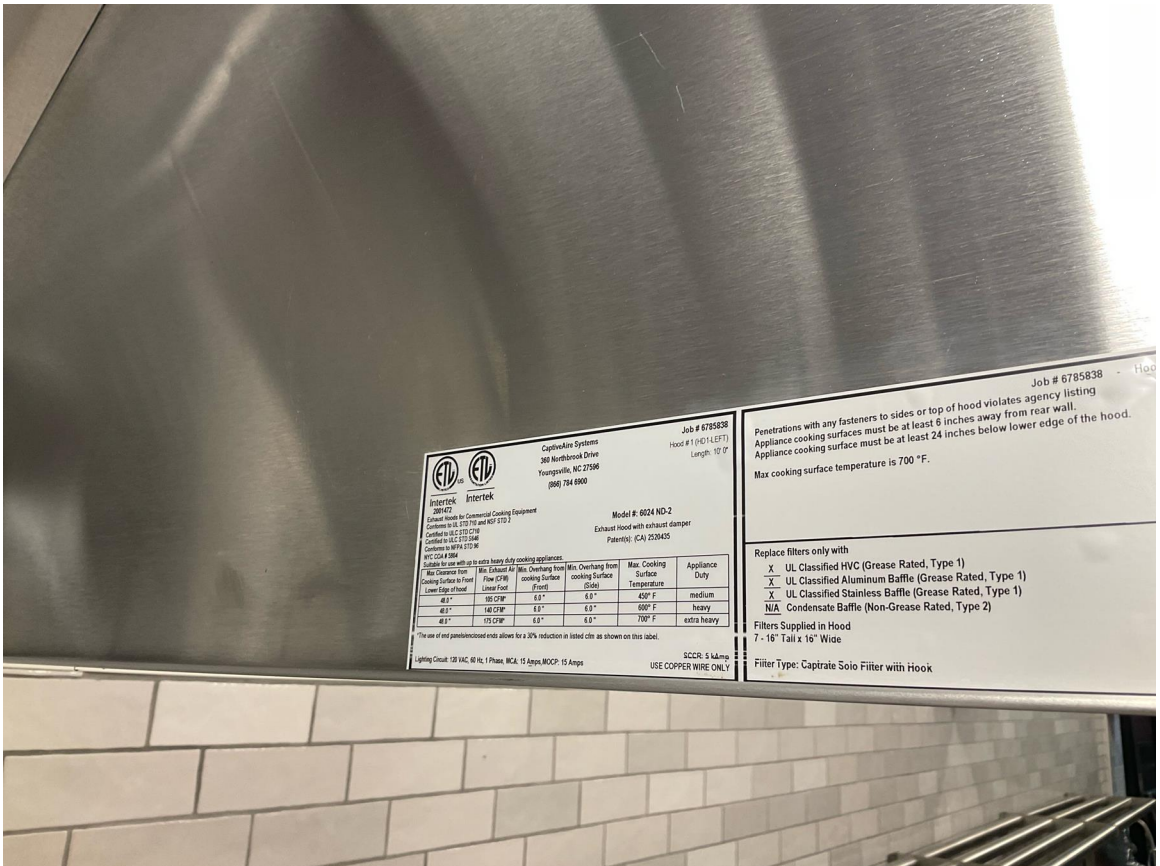
Hood 1 (HD1-LEFT) (HD1-LEFT)

Model: 6024ND-2-PSP-F **Length:** 10' 0"
Exhaust CFM: Design = 2200 Initial = 1993 Final = 2079 (94.5% of design)

Other Notes:

N/A

See attachment(s): [202410181253972252.mp4]



Hung Using appropriate material to safely secure hood.	Design: Yes	Actual: Yes
COOKING EQUIPMENT ON AND OPERATING	Design: Yes	Actual: Yes
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design: Yes	Actual: Yes
END PANELS INSTALLED CORRECTLY	Design: Yes	Actual: No

Installation Notes:

Left quarter end panel not installed.



INITIAL POSITION OF BALANCE DAMPER		Actual: 0
POSITION OF BALANCE DAMPER AFTER AIRFLOW		Actual: 0
Smoke Test Performed on all Hoods? Upload Video	Design: Yes	Actual: Yes
Measure the Front lower edge of the Hood to the Floor. (AFF)	Design: 80	Actual: 80
Is there insulation on Top of the Hood?	Design: Yes	Actual: No
Are there combustibles within 18" of the Hood?		Actual: No

Filters

Type:	Captrate Solo		
Filter 1 Initial CFM: 267	Size: 16x16 Final CFM: 281	Initial Velocity: 175 fpm Fan: Other	Final Velocity: 184 fpm
Filter 2 Initial CFM: 293	Size: 16x16 Final CFM: 296	Initial Velocity: 192 fpm Fan: Other	Final Velocity: 194 fpm
Filter 3 Initial CFM: 323	Size: 16x16 Final CFM: 311	Initial Velocity: 212 fpm Fan: Other	Final Velocity: 204 fpm
Filter 4 Initial CFM: 319	Size: 16x16 Final CFM: 325	Initial Velocity: 209 fpm Fan: Other	Final Velocity: 213 fpm
Filter 5 Initial CFM: 296	Size: 16x16 Final CFM: 323	Initial Velocity: 194 fpm Fan: Other	Final Velocity: 212 fpm
Filter 6 Initial CFM: 243	Size: 16x16 Final CFM: 267	Initial Velocity: 159 fpm Fan: Other	Final Velocity: 175 fpm
Filter 7 Initial CFM: 252	Size: 16x16 Final CFM: 276	Initial Velocity: 165 fpm Fan: Other	Final Velocity: 181 fpm

Supply

Supply CFM: (81.9% of design)	Design = 1848 Fan: Other	Initial = 1321	Actual = 1514
---	-----------------------------	----------------	---------------

PSP 1

Orientation:	Front	Length:	10' 0"	Width:	16"
Banks: 1	Blanks: 1				
CFM: (0% of design)	Design = 1848	Initial = 1321	Final = 1514		
Velocity: (0% of design)	Design = 159	Initial = 0	Final = 0		

Readings:

1: Initial: 111 fpm, Final: 138 fpm	2: Initial: 94 fpm, Final: 99 fpm
3: Initial: 88 fpm, Final: 96 fpm	4: Initial: 81 fpm, Final: 98 fpm
5: Initial: 122 fpm, Final: 136 fpm	6: Initial: 121 fpm, Final: 133 fpm
7: Initial: 101 fpm, Final: 106 fpm	8: Initial: 108 fpm, Final: 110 fpm
9: Initial: 81 fpm, Final: 113 fpm	10: Initial: 118 fpm, Final: 146 fpm

Hood 2 (HD2-CTR) (HD2-CTR)

Model:	6024ND-2-PSP-F	Length:	10' 6"
Exhaust CFM: (105.4% of design)	Design = 1942	Initial = 1988	Final = 2047

Other Notes:

N/A

See attachment(s): [202410181513820397.mp4]



Hung Using appropriate material to safely secure hood.	Design: Yes	Actual: Yes
COOKING EQUIPMENT ON AND OPERATING	Design: Yes	Actual: Yes
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design: Yes	Actual: Yes
Smoke Test Performed on all Hoods? Upload Video	Design: Yes	Actual: Yes
Measure the Front lower edge of the Hood to the Floor. (AFF)	Design: 80	Actual: 80
Is there insulation on Top of the Hood?	Design: Yes	Actual: No
Are there combustibles within 18" of the Hood?		Actual: No

Filters

Type:	Captrate Solo		
Filter 1	Size: 16x16	Initial Velocity: 184 fpm	Final Velocity: 179 fpm
Initial CFM: 281	Final CFM: 273	Fan: Other	
Filter 2	Size: 16x16	Initial Velocity: 182 fpm	Final Velocity: 185 fpm
Initial CFM: 278	Final CFM: 282	Fan: Other	
Filter 3	Size: 16x16	Initial Velocity: 197 fpm	Final Velocity: 193 fpm
Initial CFM: 301	Final CFM: 294	Fan: Other	
Filter 4	Size: 16x16	Initial Velocity: 200 fpm	Final Velocity: 210 fpm
Initial CFM: 305	Final CFM: 320	Fan: Other	
Filter 5	Size: 16x16	Initial Velocity: 192 fpm	Final Velocity: 201 fpm
Initial CFM: 293	Final CFM: 307	Fan: Other	
Filter 6	Size: 16x16	Initial Velocity: 176 fpm	Final Velocity: 190 fpm
Initial CFM: 268	Final CFM: 290	Fan: Other	
Filter 7	Size: 16x16	Initial Velocity: 172 fpm	Final Velocity: 184 fpm
Initial CFM: 262	Final CFM: 281	Fan: Other	

Supply

Supply CFM: (103.4% of design)	Design = 1728 Fan: Other	Initial = 1622	Actual = 1786
--	-----------------------------	----------------	---------------

PSP 1

Orientation:	Front	Length:	10' 6"	Width:	16"
Banks:	1	Blanks:	1		
CFM: (0% of design)	Design = 1728	Initial = 1622	Final = 1786		
Velocity: (0% of design)	Design = 142	Initial = 0	Final = 0		

1: Initial: 132 fpm, Final: 147 fpm	2: Initial: 103 fpm, Final: 126 fpm
3: Initial: 107 fpm, Final: 123 fpm	4: Initial: 103 fpm, Final: 106 fpm
5: Initial: 134 fpm, Final: 137 fpm	6: Initial: 136 fpm, Final: 167 fpm
7: Initial: 142 fpm, Final: 135 fpm	8: Initial: 92 fpm, Final: 92 fpm
9: Initial: 102 fpm, Final: 109 fpm	10: Initial: 98 fpm, Final: 115 fpm
11: Initial: 138 fpm, Final: 153 fpm	12: Initial: 149 fpm, Final: 171 fpm

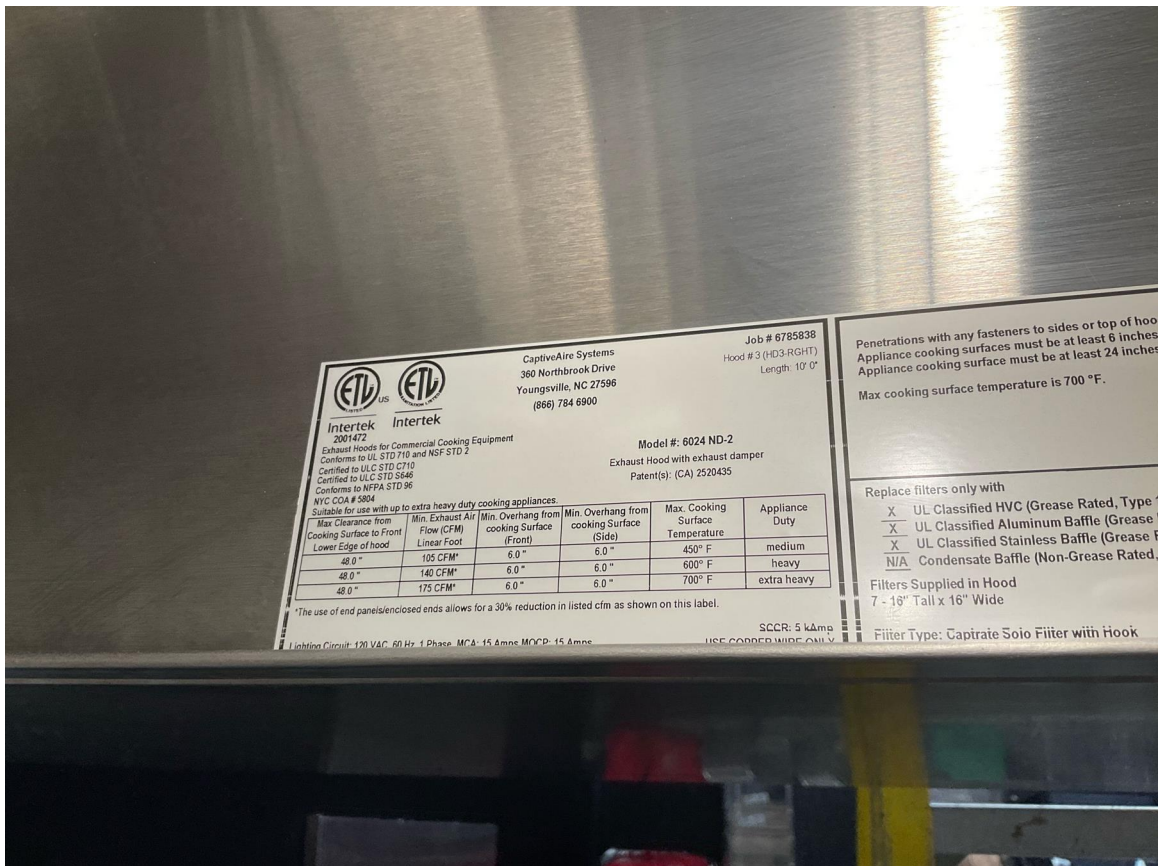
Hood 3 (HD3-RGHT) (HD3-RGHT)

Model:	6024ND-2-PSP-F	Length:	10' 0"	
Exhaust CFM:	Design = 1850	Initial = 2020	Final = 1841	(99.5% of design)

Other Notes:

N/A

See attachment(s): [202410181254255439.mp4] [202410181254255439.mp4]



Hung Using appropriate material to safely secure hood.	Design: Yes	Actual: Yes
COOKING EQUIPMENT ON AND OPERATING	Design: Yes	Actual: Yes
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design: Yes	Actual: Yes
END PANELS INSTALLED CORRECTLY	Design: Yes	Actual: No

Other Notes:

Vertical end panel not installed.



INITIAL POSITION OF BALANCE DAMPER		Actual: 0
POSITION OF BALANCE DAMPER AFTER AIRFLOW		Actual: 25
Smoke Test Performed on all Hoods? Upload Video	Design: Yes	Actual: Yes
Measure the Front lower edge of the Hood to the Floor. (AFF)	Design: 80	Actual: 80
Is there insulation on Top of the Hood?	Design: Yes	Actual: No
Are there combustibles within 18" of the Hood?		Actual: No

Filters

Type:	Captrate Solo		
Filter 1 Initial CFM: 313	Size: 16x16 Final CFM: 255	Initial Velocity: 205 fpm Fan: Other	Final Velocity: 167 fpm
Filter 2 Initial CFM: 290	Size: 16x16 Final CFM: 268	Initial Velocity: 190 fpm Fan: Other	Final Velocity: 176 fpm
Filter 3 Initial CFM: 294	Size: 16x16 Final CFM: 265	Initial Velocity: 193 fpm Fan: Other	Final Velocity: 174 fpm
Filter 4 Initial CFM: 308	Size: 16x16 Final CFM: 293	Initial Velocity: 202 fpm Fan: Other	Final Velocity: 192 fpm
Filter 5 Initial CFM: 279	Size: 16x16 Final CFM: 264	Initial Velocity: 183 fpm Fan: Other	Final Velocity: 173 fpm
Filter 6 Initial CFM: 272	Size: 16x16 Final CFM: 247	Initial Velocity: 178 fpm Fan: Other	Final Velocity: 162 fpm
Filter 7 Initial CFM: 264	Size: 16x16 Final CFM: 249	Initial Velocity: 173 fpm Fan: Other	Final Velocity: 163 fpm

Supply

Supply CFM: (113.2% of design)	Design = 1646 Fan: Other	Initial = 1863	Actual = 1863
--	-----------------------------	----------------	---------------

PSP 1

Orientation:	Front	Length:	11' 0"	Width:	16"
Banks: 1	Blanks: 1				
CFM: (0% of design)	Design = 1646	Initial = 1863	Final = 1863		
Velocity: (0% of design)	Design = 129	Initial = 0	Final = 0		

Readings:

1: Initial: 172 fpm, Final: 172 fpm	2: Initial: 119 fpm, Final: 119 fpm
3: Initial: 108 fpm, Final: 108 fpm	4: Initial: 99 fpm, Final: 99 fpm
5: Initial: 139 fpm, Final: 139 fpm	6: Initial: 165 fpm, Final: 165 fpm
7: Initial: 148 fpm, Final: 148 fpm	8: Initial: 88 fpm, Final: 88 fpm
9: Initial: 102 fpm, Final: 102 fpm	10: Initial: 124 fpm, Final: 124 fpm
11: Initial: 143 fpm, Final: 143 fpm	12: Initial: 165 fpm, Final: 165 fpm

Fans

Fan 2 - A3-24D (SF1) (SF1)

Model: A3-24D

Other Notes:

Difficult to access fan and take overall picture of unit in ceiling. Was advised by sales office to document general area of fan from ground.



Supply

Supply CFM: Design = 7000 Actual = 5163 (74% of design)

Other Notes:

Unit is serving kitchen area through diffusers as well as PSP, was advised to balance PSP to design from sales office.

VOLTS	Design: 460	Actual: 485
Is the main transformer (TR-01) tapped for the correct voltage?		Actual: Yes
HP	Design: 10	Actual: 10
HUB SET SCREW TIGHT	Design: Yes	Actual: Yes
FAN LEVEL	Design: Yes	Actual: Yes
ROTATION	Design: Correct	Actual: Correct
UNIT VIBRATION	Design: Good	Actual: Good
FLA	Design: 12.2	Actual: 9.2
OVERLOAD SET POINT	N/A	
PHASE	Design: 3	Actual: 3
DAMPER INSTALLED	Design: Yes	Actual: Yes

Unit within five miles from the coast?

Actual: **No**

INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE

Actual: **No**

Record the VFD HZ

Design: **53.1 Hz**

Actual: **50.1**

RPM - DESIGN

Design: **1553**

Actual: **1465**

RPM - MAX

Design: **1800**

Actual: **N/A**

RPM - MAX RECOMMENDED

Design: **1500**

Actual: **N/A**

Is Supply Fan bolted/secured to curb?

Design: **Yes**

Actual: **Yes**

Other Notes:

Fan located above ceiling.

ECPs

ECP 1 - DCV-1111_MA4 (EMS1) (EMS1)

Package #: DCV-1111_MA4

GAS VALVE RESET WORKS	Design: Yes	Actual: Yes
ROOM TEMPERATURE OFFSET	Design: 21	Actual: 21
HOW MANY FAN ZONES ARE THERE	Design: 1	Actual: 1
HYSTERESIS TEMPERATURE		Actual: 2
Room Sensor Type	Design: RoomSensor	Actual: Preset
What is Preset temperature set to?		Actual: 75

Other Notes:

Room temp setting changed to preset due to location of room sensor.



Do any of the light circuits exceed 1400W?	Design: No	Actual: No
ALL LIGHTS WORK	Design: Yes	Actual: Yes
ALL FAULTS CLEARED	Design: Yes	Actual: Yes
ECPM03 HARDWARE REVISION	Design: 04	Actual: 04
ECPM03 PROGRAM VERSION	Design: 2.16.01	Actual: 2.16.01
CASHMI HARDWARE REVISION	Design: 05	Actual: 05
CASHMI PROGRAM VERSION	Design: 2.16.01	Actual: 2.16.01
ECPM03 DATE AND TIME ACCURATE	Design: Yes	Actual: Yes

DCV

Other Notes:

No controls in untempered supply fan.

120V Line Ran from SF1 for MUA(s)	Design: Yes	Actual: No
Damper interlock wiring ran to MAU?	Design: Yes	Actual: No

BMS & Monitoring

BMS TYPE	Design: CASLink	Actual: CASLink
CASLINK COMMUNICATION TYPE	Design: Cellular	Actual: Cellular
Cellular status is Active Online?	Design: Yes	Actual: Yes
CASLink Registration Wizard was completed?	Design: Yes	Actual: Yes

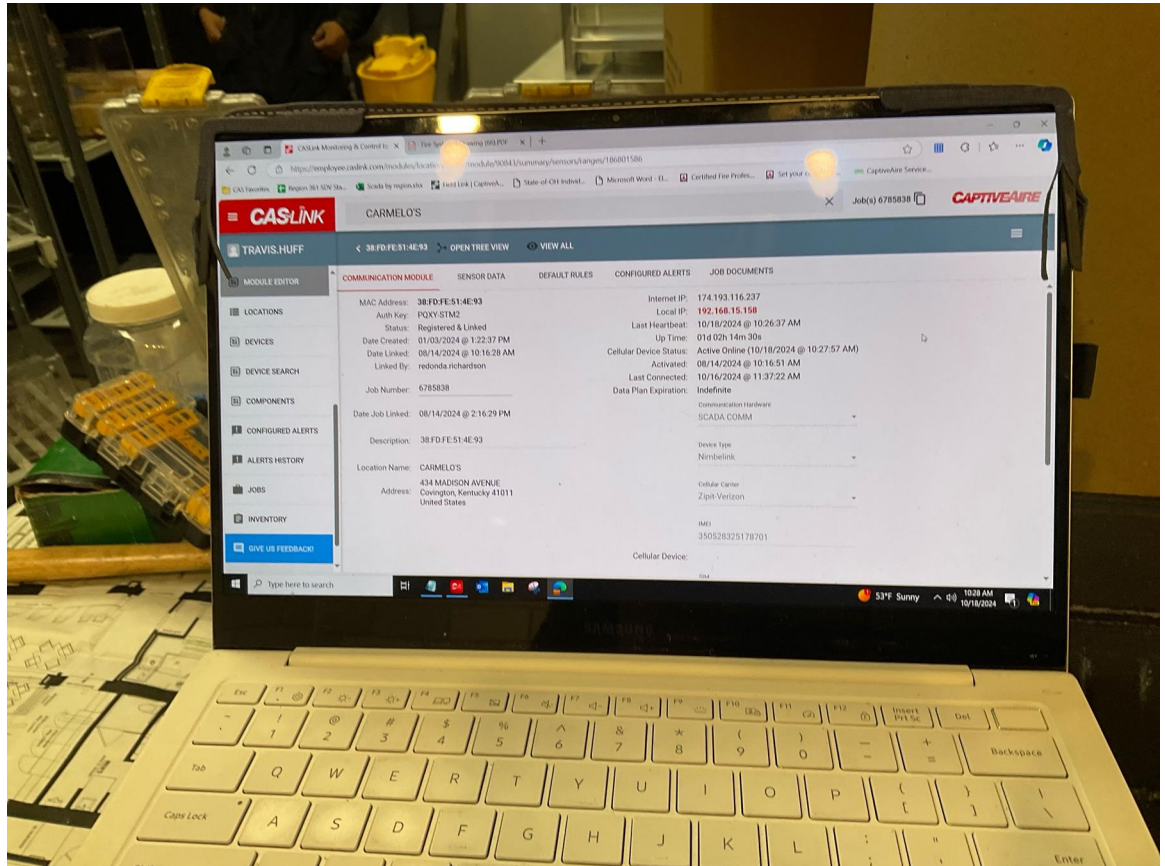
CASLink Module has a current heartbeat?

Design: **Yes**

Actual: **Yes**

Other Notes:

N/A



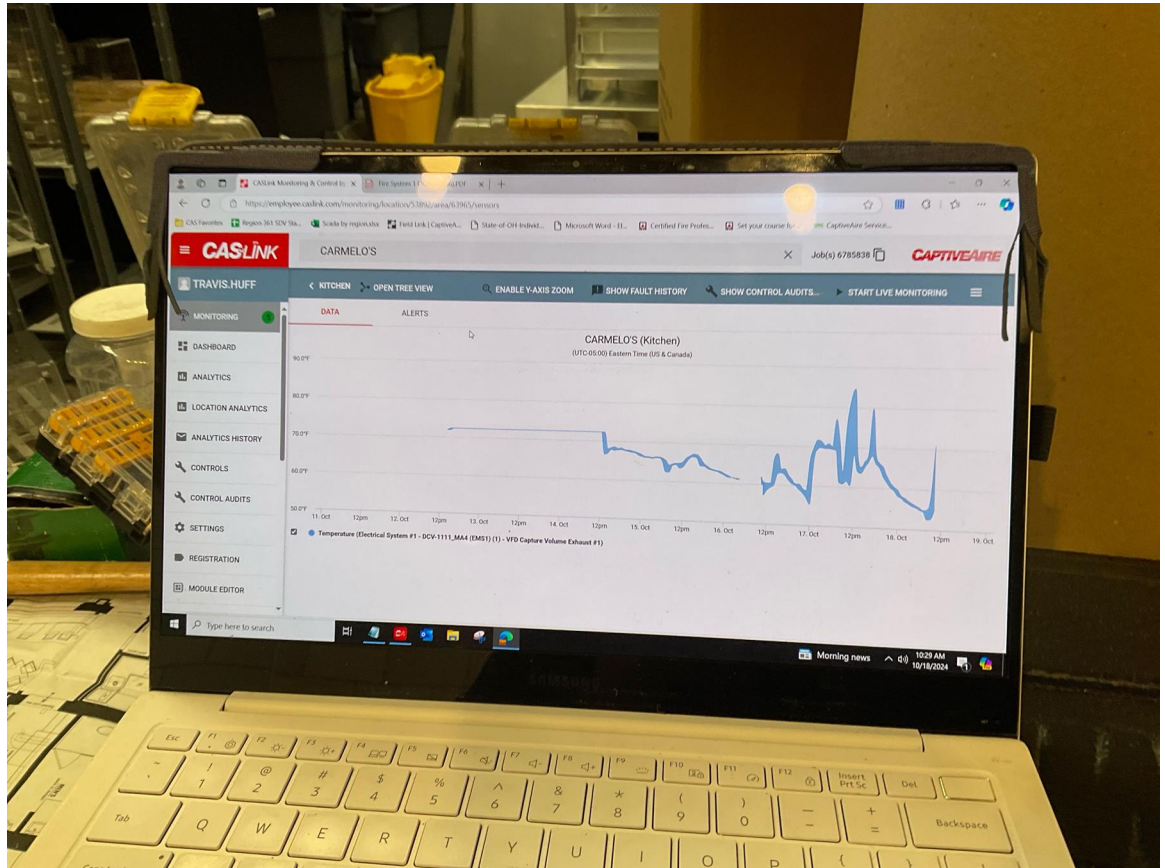
All devices connected to the SCADA are reporting live data?

Design: **Yes**

Actual: **Yes**

Other Notes:

N/A



Devices were assigned to an area and named appropriately?

Design: **Yes**

Actual: **Yes**

Sensors

T2

SENSOR TYPE

Design: **Duct Stat**

Actual: **Duct Stat**

SENSOR LOCATION

Design: **H1CV1**

Actual: **H1CV1**

FAN NUMBER

Design: **1**

Actual: **1**

T3

SENSOR TYPE

Design: **Duct Stat**

Actual: **Duct Stat**

SENSOR LOCATION

Design: **H2CV1**

Actual: **H2CV1**

FAN NUMBER Design: **1** Actual: **1**

T4

SENSOR TYPE Design: **Duct Stat** Actual: **Duct Stat**

SENSOR LOCATION Design: **H3CV1** Actual: **H3CV1**

FAN NUMBER Design: **1** Actual: **1**

T5

SENSOR TYPE Design: **PSP** Actual: **PSP**

SENSOR LOCATION Design: **Hood 3** Actual: **Hood 3**

FAN NUMBER Design: **0** Actual: **0**

VFDs

VFD 1

DESIGN CFM Design: **1000** Actual: **5967**

FAN DIRECTION Design: **Forward** Actual: **Forward**

TEMP SENSOR #s ASSIGNED Design: **T2, T3, T4** Actual: **T2, T3, T4**

DCV VFD

MODULATION RANGE Design: **45** Actual: **20**

OVERLOAD = P108 Design: **91** Actual: **91**

MIN HZ Design: **48** Actual: **40**

MAX HZ Design: **60** Actual: **50**

ALL FAULTS CLEARED = P197 Design: **Yes** Actual: **Yes**

P508 Actual: **8.4**

LOAD IN SEPARATE CONDUIT. Design: **Yes** Actual: **Yes**

VFD 2

DESIGN CFM Design: **7000** Actual: **5163**

DCV VFD

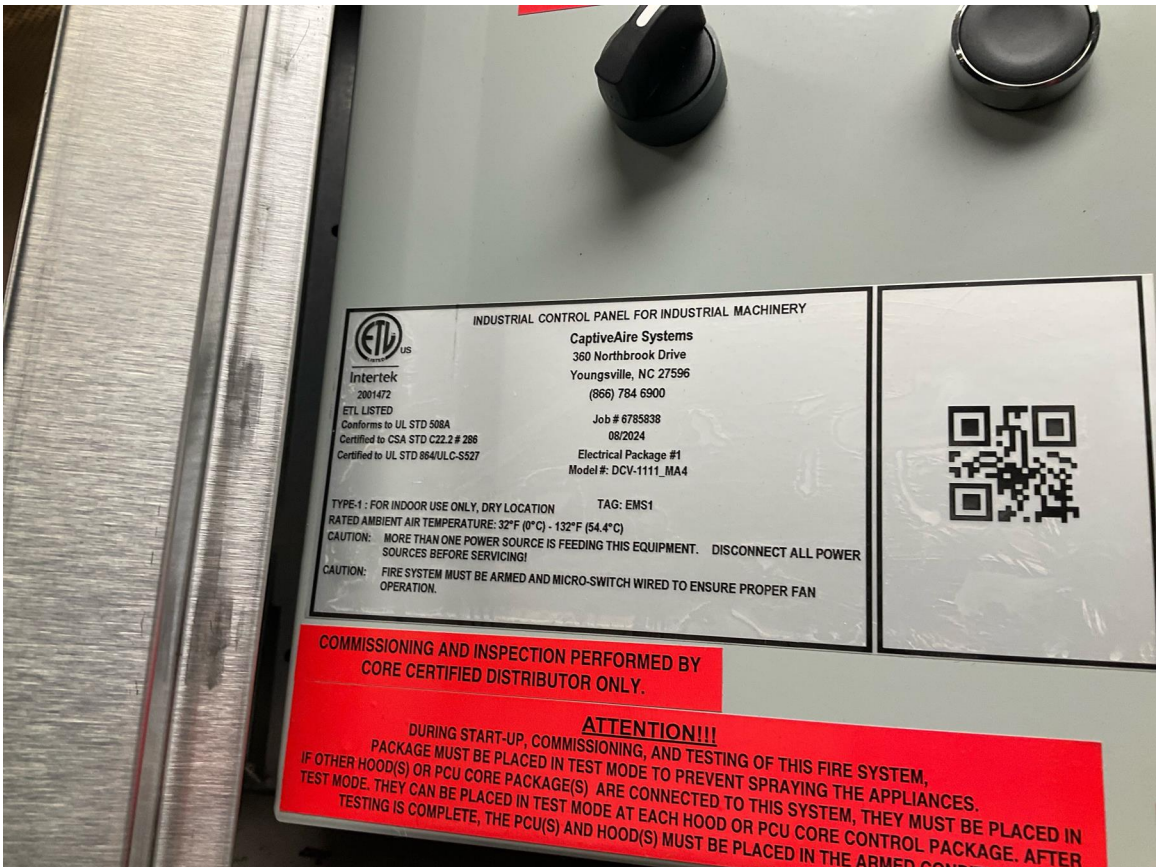
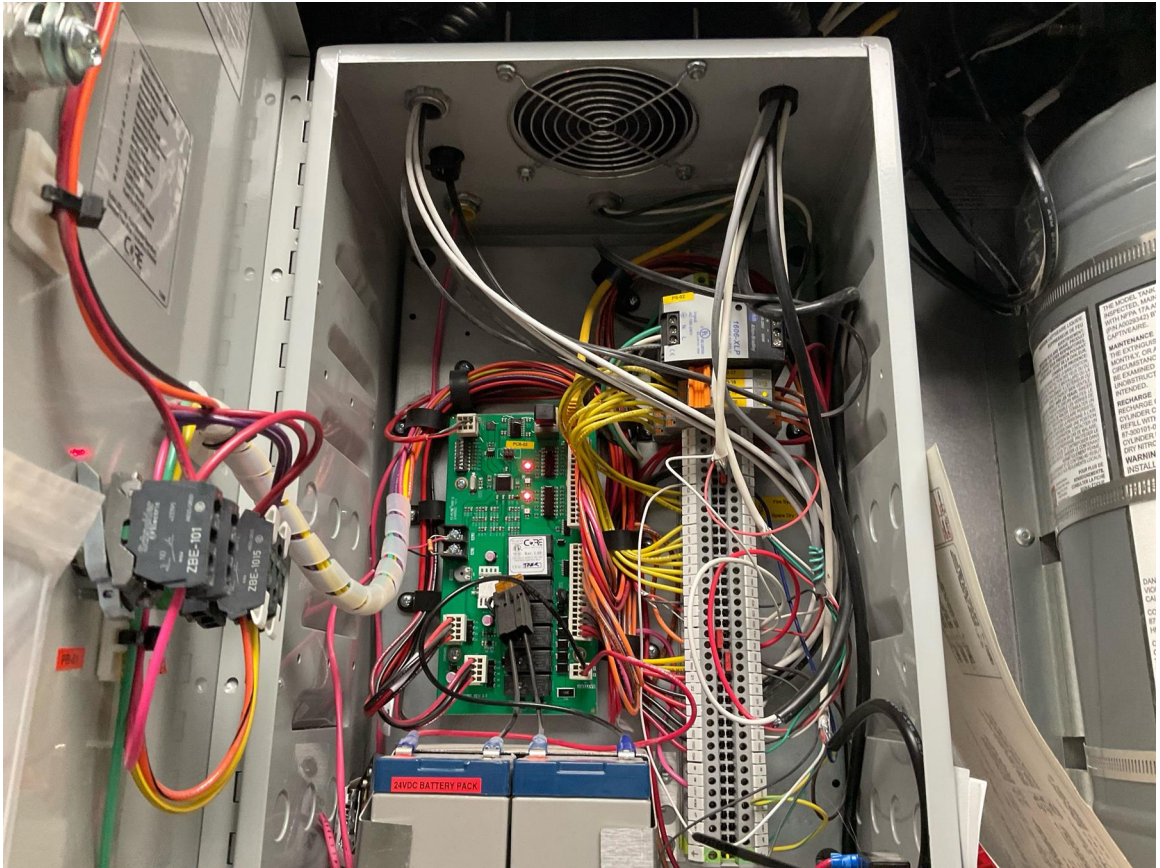
SUPPLY FAN # ASSIGNED	Design: 2	Actual: 2
OVERLOAD = P108	Design: 87	Actual: 87
MAX HZ	Design: 53.1	Actual: 50.1
ALL FAULTS CLEARED = P197 P508	Design: Yes	Actual: Yes
LOAD IN SEPARATE CONDUIT.	Design: Yes	Actual: Yes

TANK**TANK ECP 1 (EMS1)**

Location : Hood #1 6024ND-2-PSP-F: Utility Cabinet Wall Mounted

Other Notes:

N/A











Building Alarm Tied In

Design: **Yes**

Actual: **Yes**

Trouble Relay Tied In

Design: **Yes**

Actual: **Yes**

TANK Board Version

Design: **2.3**

Actual: **2.3**

TANK Board Updated to latest Software Version

Actual: **Yes**

TANK Board Software Version

Design: **1.69**

Actual: **1.69**

Internet Connection Type

Actual: **Cellular**

TANK Fire Suppression 1 (FS1)

Location : Hood #3 - Utility Cabinet Right

Electrician

TANK Control Panel Wired

Design: **Yes**

Actual: **Yes**

UDS Appliance Kill Switch (if equipped) Wired

N/A

Verify Power Supply is 27.5VDC

Actual: **Yes**

Fire System Contractor w/CAS Supervision

Verify kitchen line up with drawings in NOLA?

Actual: **Correct**

Are all overlapping nozzles within 35-50" of cooking surface?

Design: **Yes**

Actual: **Yes**

Nozzles Within 15" From Front/Back of Hazard Zone

Design: **Yes**

Actual: **Yes**

Verify overlapping nozzles are located at centerline of the 30" hazard zone (front to back) same height, aimed straight down?

Design: **Yes**

Actual: **Yes**

Is there a Salamander or Upright Broiler Present?

Actual: **Yes**

Does Salamander or Upright Broiler (cooking surface exceed > 1050 sq/in)?

Design: **No**

Actual: **No**

Interior Nozzle Facing Back Opposite End of Appliance (For Upright Broiler/Salamander)

Design: **Yes**

Actual: **Yes**

Does the depth of any appliance cooking surface exceed the listed size in the Appliance Coverage Detail chart?

Design: **No**

Actual: **No**

All dedicated appliances, duct and plenum are utilizing TANK appliance nozzles (3070-3/8H-10-SS)?

Design: **Yes**

Actual: **Yes**

Is end plenum nozzle installed 0-6" into plenum (From end of hood/hazard to center of nozzle)?

Design: **Yes**

Actual: **Yes**

Are TANK appliance nozzles spaced no more than 12"(From end of Hazard zone to center of first nozzle and end of hazard zone to center of last nozzle)?	Design: Yes	Actual: Yes
Did the appliance lineup change from the original design?	Design: No	Actual: No
Did the fire system appliance drops change from the original design?	Design: No	Actual: No
Does Fire System cover a Wok?		Actual: No
Does dedicated TANK appliance nozzle piping exceed maximum pipe length of 10 ft?	Design: No	Actual: No
Does plenum branch piping exceed maximum pipe length of 3ft?	Design: No	Actual: No
Does the Supply line piping to first overlapping nozzle exceed 42 ft?	Design: No	Actual: No
Is Back-shelf a minimum of 18" Vertically off Appliance	Design: Yes	Actual: Yes

Back-shelf Overhang less than 12" **N/A**

Other Notes:

Overhanging shelf not installed on equipment



No appliance drop has more than 2 nozzles?	Design: True	Actual: True
--	---------------------	---------------------

Is all piping except appliance drops
3/8" Blackiron, Chrome plated,
Stainless Steel or 1/2" Copper?

Design: **Yes**

Actual: **Yes**

Is all appliance drop piping 3/8"
polished stainless steel or polished
chrome-plated black iron?

Actual: **Yes**

Are there any fryers?

Actual: **Yes**

How many fryers are there?

Actual: **2**

Enter Width of Fryer 1 Hazard
Zone:

Actual: **12.5**

Enter Width of Fryer 2 Hazard
Zone:

Actual: **12.5**

Are there any Tilt Skillets?

Actual: **No**

Is Manual Activation Device Wired into a Fire Loop (Must be 4 wire, in conduit)? Upload a picture of wiring connection of manual activation device.

Design: **Yes**

Actual: **Yes**

Other Notes:

N/A



MAD Installed 10'-20' from Hood at a Point of Egress and 42"-48" AFF

Design: **Yes**

Actual: **Yes**

Extra Fire Stat Added

N/A

Fire stats are wired in a fire loop with 842 degree high temp wire when ran on top of hoods

Design: **Yes**

Actual: **Yes**

CAS Service Supervised, Assisted or Wired All Supervised Loop Connections

Actual: **Only verified connections at MAD and terminals**

Total amount of FP's used

Design: **89**

Actual: **89**

CAS Service

Verify the correct Fire Stat is installed?

Actual: **360**

Have all shipping covers been removed from fire stats

Design: **Yes**

Actual: **Yes**

Testing of TANK system completed or being completed by:		Actual: CAS Service
Test System. Ensure balloons are installed on all nozzles before activating system.		Actual: Ok
Activate system by Manual Activation device. Did system activate and all balloons fill and/or hold pressure properly?	Design: Yes	Actual: Yes
Activate system by all Fire Stats. Did system activate and all balloons fill and/or hold pressure properly?	Design: Yes	Actual: Yes
System Activates on 120V power only	Design: Yes	Actual: Yes
Activate system on Battery Backup (Remove CORE board power and place system in Test Mode). Did system activate properly?	Design: Yes	Actual: Yes
Did the Audible Alarm Sound during each Test of the system?	Design: Yes	Actual: Yes
Battery Date Code (The actual date FST wrote on batteries with paint pen during SDV)		Actual: 10/18/2024 3:47:00 PM
Verify the correct amount of TANK appliance nozzles cover the cross-sectional Perimeter or Diameter of the Duct Riser? (If 0 - 75" perimeter equals 1 nozzles, 75 - 150" 2 nozzles, above 150" 3 nozzles)	Design: Yes	Actual: Yes

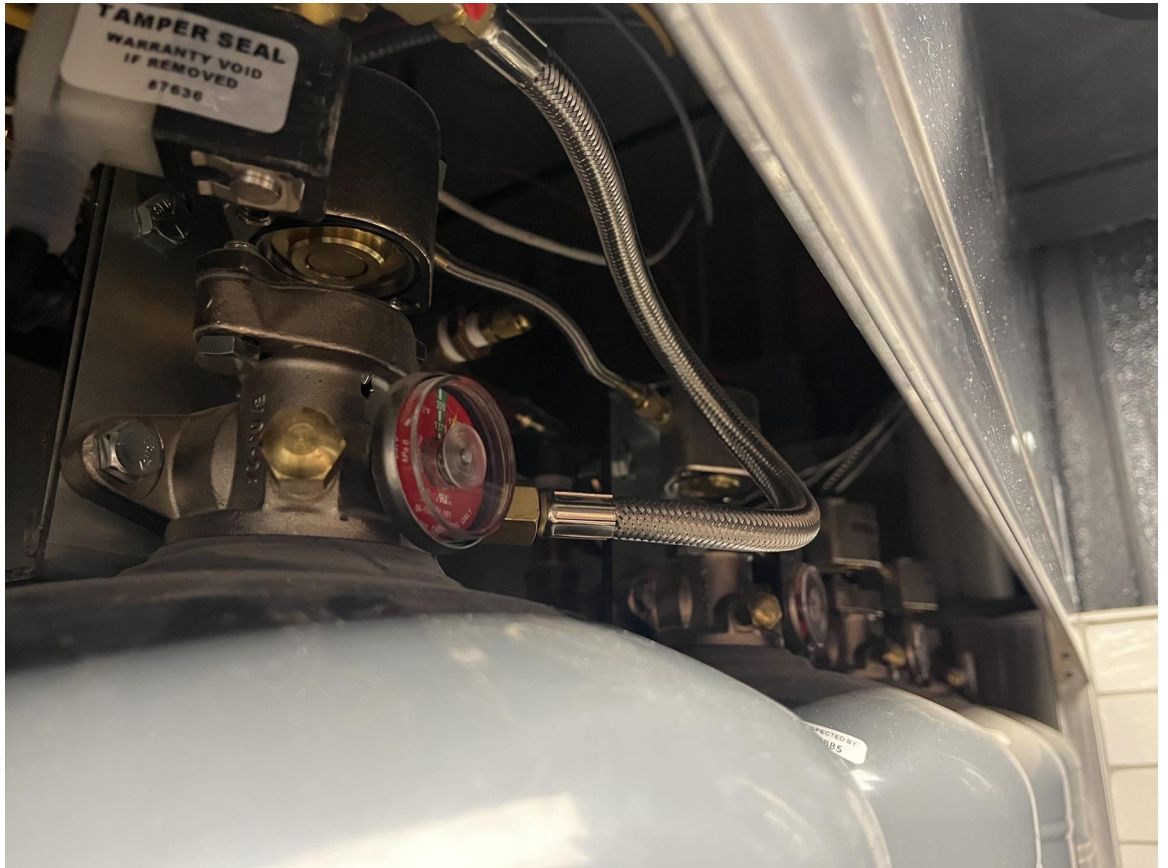
Is the system commissioned with the actuator bolted onto the TANK Fire Suppression system? Upload Picture.

Design: **Yes**

Actual: **No**

Other Notes:

N/A



Is pressure switch installed and functioning properly?

Design: **Yes**

Actual: **Yes**

CAUTION!: If pressure reads above 0.5 psi, immediately remove the primary actuator hose from the primary tank

Actual: **Ok**

Is appliance specific protection piped with adequate protection?
Upload picture.

Design: **Yes**

Actual: **Yes**

Other Notes:

N/A



Use coil liquid leak detector around PAK and braided hose to check for leaks. Are there any leaks present?

Design: **No**

Actual: **No**

Do TANK bottles have 200 PSI with
gauges functioning properly?
Upload picture

Design: **Yes**

Actual: **Yes**

Other Notes:

N/A







Do all nozzles have metal caps?

Design: **Yes**

Actual: **Yes**

Verify Nozzle Flow Points/Tank Capabilities. Does Nozzles FP exceed Tank Capacity?

Design: **No**

Actual: **No**

Take a photo of Fire System Tag		Actual: Ok
Tanks installed securely with straps and mounting hardware?	Design: Yes	Actual: Yes
After inspection of system, lubricate and change O-ring of primary actuator hose (p/n 19020).	Design: Replaced	Actual: Replaced
All Faults Are Cleared	Design: Yes	Actual: Yes
Are DIP switches set correctly according to number of Fire Groups?	Design: Yes	Actual: Yes
Is TANK system located/mounted in a climate-controlled area?	Design: Yes	Actual: Yes

PCU Installations

NONE

PCU Installations

NONE

AQEs

NONE

UDS

NONE