Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 10/18/2023

PROJECT

10-16-23 FREDDYS - PROVO, UT

1025 S University Ave

Provo, UT 84601

Client

JRI Hospitality Management

621 Westport Blvd

Salina, KS 67401

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

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

- DOAS Clogged Filter active fault
- DOAS kitchen HMI blank screen
- EF1/EF2 no speed controller

10-16-23 FREDDYS - PROVO, UT

Project Issue Information

Issue Name : DOAS Clogged Filter active fault

Description : The DOAS unit HMI is showing a clogged filter active fault. Unit was checked and the filters are new. GC is aware and CAS is scheduled to come out and address issues with DOAS with Morris Controls. Fan is running for TAB purposes.

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 10/16/2023 - Jacob Davidson - National TAB

Project Issue File Details

IMG_5360
10/16/2023

10-16-23 FREDDYS - PROVO, UT

Project Issue Information

Issue Name : DOAS kitchen HMI blank screen

Description : Kitchen HMI for DOAS unit is blank and cannot be controlled. GC is aware and CAS is scheduled to come look at the DOAS unit to address the fault messages with Morris controls company..

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 10/17/2023 - Jacob Davidson - National TAB

Project Issue File Details

HMIblank
10/17/2023

10-16-23 FREDDYS - PROVO, UT

Project Issue Information

Issue Name : EF1/EF2 no speed controller

Description : EF1 and EF2 for the restrooms are high on flow and have no speed controller to reduce the speed of the fans. Recommend having the responsible party add them to the fans to reduce the airflow.

Created By : National TAB

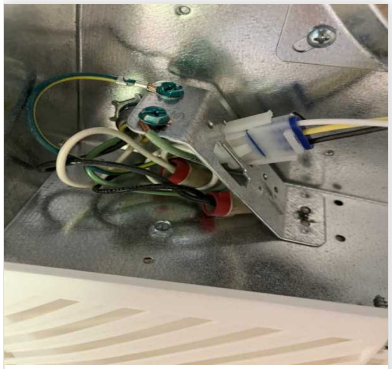
Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 10/17/2023 - Jacob Davidson - National TAB

Project Issue Response Details

- **10/17/2023 National TAB - Jacob Davidson**
  - Added pictures



IMG_5383
10/17/2023

IMG_5378
10/17/2023

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	DINING	4850	4766	3850	3768	1000	998	20.6%	20.9%						
DOAS-1	KITCHEN	2900	2938	0	0	2900	2938	100.0%	100.0%						
KEF-1	GRDDILE											1700	1652		
KEF-2	FRYER											775	782		
KEF-3	DISHES											525	558		
EF-1	RR													75	117
EF-2	RR													150	184
TOTALS		7750	7704	3850	3768	3900	3936			0	0	3000	2992	225	301

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3900	3936
TOTAL EXHAUST	3225	3293
NET AIRFLOW	675	643

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0131
SIDE	0.0148
REAR	0.0191
AVERAGE	**0.0157**

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

- TECH - SITE PICTURES
- TECH - STEP 1: INITIAL SITE WALKTHROUGH
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3: TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS

10-16-23 FREDDYS - PROVO, UT

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/16/2023 - Brian Turnbough - National TAB		

CheckList Item Details

STORE FRONT

Comment:

FRONT(1)
10/17/2023

RTU-1

Comment:

IMG_5396
10/17/2023

DOAS-1

Comment:

IMG_5395
10/17/2023

EF-1

Comment:

IMG_5400
10/17/2023

EF-2

Comment:

IMG_5401
10/17/2023

KEF-1

Comment:

IMG_5397
10/17/2023

KEF-2

Comment:

IMG_5398
10/17/2023

KEF-3

Comment:

IMG_5399
10/17/2023

HOOD-1

Comment:

IMG_5390
10/17/2023

HOOD-2

Comment:

IMG_5391
10/17/2023

HOOD-3

Comment:

IMG_5392
10/17/2023

10-16-23 FREDDYS - PROVO, UT

CheckList Information

Name :	TECH - STEP 1: INITIAL SITE WALKTHROUGH	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/16/2023 - Brian Turnbough - National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	Yes
Comment:	
All hood filters installed and accounted for?	Yes
Comment:	
Hoods are wired and have power?	Yes
Comment:	
Hood is free of alarms?	Yes
Comment:	
Thermostats have power?	Yes
Comment:	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	
Comment:	
YES	

10-16-23 FREDDYS - PROVO, UT

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/16/2023 - Brian Turnbough - National TAB		

CheckList Item Details

UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:

RTU's/AHU's

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?	Yes
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:	
EF's	
Rotation is correct?	Yes
Comment:	
Belts are tight?	N/A
Comment:	
Grease cup installed on hood fan?	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?	N/A

Comment:

Unit free of noticeable noise and vibration?	Yes

Comment:

HOODS

Kitchen equipment installed in proper places?	Yes

Comment:

Can kitchen equipment be turned on for final smoke test?	No

Comment:

DOCUMENTATION

Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	

Comment:

YES

10-16-23 FREDDYS - PROVO, UT

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/16/2023 - Brian Turnbough - National TAB		

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	Yes
Comment:	
Is space comfortable in all areas?	Yes
Comment:	
Is the space free of ventilation noise?	Yes
Comment:	

If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".

Comment:

N/A

10-16-23 FREDDYS - PROVO, UT

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/16/2023 - Brian Turnbough - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

NONE

List smoke candle type used

Comment:

45 SECOND SMOKE EMITTER

Smoke test capture - Perimeter of hood

Comment:

100%

- Open IMG_5393.mp4
10/17/2023

Smoke test capture - Top of cooking surface

Comment:

100%

- Open IMG_5394.mp4

10/17/2023

WITNESS	
Date test was completed	10/17/2023
Comment:	
TAB tech name / Firm	
Comment: JACOB DAVIDSON / NATIONAL TAB INTELLIGENCE	
Site super name / Firm	
Comment: KYLE LAWSON / KDK CONSTRUCTION	
Owner representative name / Firm (if Applicable)	
Comment:	
Building pressure at front & back doors (All Systems On)	
Comment: BACK DOOR 0.0191" FRONT DOOR 0.0131"	

ADDITIONAL	
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	
Comment: YES	
Thermostats are programmed?	Yes
Comment:	

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: AHU/RTU

Asset: DOAS1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	CAPTIVEAIRE
Serial Num	-	5358200
Model Num	LENNOX	CASRTU3-I.250-18-10T
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1 BIRD SCREEN
OA Filter Size 1	-	19.5X36
Num Final Filter 1	-	2 METAL MESH
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	8
Final Filter Size 2	-	16X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	184T
Horsepower	3.00	5
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	13.6/6.8

Test Data		
	Design	**Actual**
SF CFM	2900	2938
SF RPM	-	1604
RA CFM	0	0
OA CFM	2900	2938
RL Voltage	-	153V VFD
RL Amperage	-	10.9A VFD
SF Rotation	-	CCW
RA Damper Position	-	0%
Min OA Damper Position	-	100%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.01"
Fan Discharge SP	-	0.09"
Total ESP	0.500	0.10"

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

Completed By: Jacob Davidson on 10/17/2023

Notes:
SPEED SETPOINT: 53.0HZ

Written By: Jacob Davidson on 10/17/2023

National TAB

Project:10-16-23 FREDDYS - PROVO, UT

AHU/RTU

Diffuser Supply (GRD)

DOAS1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SERVING	SD3	10"	300	1	361	292	314	104.7
SGRD2	DRIVE THRU	SD3	10"	300	1	374	280	300	100.0
SGRD3	KITCHEN	SD3	10"	300	1	347	266	295	98.3
SGRD4	KITCHEN	SD3	10"	300	1	391	282	314	104.7
SGRD5	KITCHEN	SD3	10"	300	1	292	211	270	90.0
SGRD6	DRIVE THRU	SD2	8"	100	1	169	118	109	109.0
SGRD7	KITCHEN	SD4	8"	100	1	10	73	105	105.0
SGRD8	KITCHEN	SD3	10"	300	1	401	316	329	109.7
SGRD9	KITCHEN	SD3	10"	300	1	394	321	313	104.3
SGRD10	KITCHEN	SD3	10"	300	1	352	313	318	106.0
SGRD11	KITCHEN	SD3	10"	300	1	322	260	271	90.3
Total				2900		3413	2732	2938	101.31%

Completed By: Jacob Davidson on 10/17/2023

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: AHU/RTU

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	LENNOX	TRANE
Serial Num	-	221010440D
Model Num	LENNOX	YHD150G3RLD18D0C1A2
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1 METAL MESH
OA Filter Size 1	-	17X60
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2
Num Final Filter 2	-	4
Final Filter Size 2	-	20X25X2

Test Data		
	Design	**Actual**
SF CFM	4850	4766
SF RPM	-	773
RA CFM	3850	3768
OA CFM	1000	998
RL Voltage	-	206/207/208
RL Amperage	-	9.4/9.2/9.3
SF Rotation	-	CW
RA Damper Position	-	30%
Min OA Damper Position	-	30%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	E

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	5	3
Motor Rpm	-	1725/1425
Phase	3	3
Rated Voltage	208	208-230/460
Rated Amperage	-	9.4-9.2/4.6

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.49"
Fan Suction SP	-	-0.72"
Fan Discharge SP	-	0.55"
Total ESP	1.0"	1.04"
Fan Total SP	-	1.27"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.25"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	4 TURNS OUT
Fan Sheave Size	-	10"
Fan Sheave Bore	-	1-1/8"
Belt CL Distance	-	22.25" TENSIONER IN PLACE
Num of Belts	-	1
Belt Size	-	BX68
Belt Alignment	-	VERIFIED GOOD

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

Completed By: Jacob Davidson on 10/17/2023

National TAB

Project:10-16-23 FREDDYS - PROVO, UT

AHU/RTU

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	SD1	12"	520	1	735	498	497	95.6
SGRD2	DINING	SD1	12"	520	1	548	495	495	95.2
SGRD3	DINING	SD1	12"	500	1	484	490	490	98.0
SGRD4	DINING	SD1	12"	500	1	575	526	522	104.4
SGRD5	DINING	SD1	12"	520	1	496	497	496	95.4
SGRD6	DINING	SD1	12"	520	1	538	524	521	100.2
SGRD7	DINING	SD1	12"	520	1	349	481	479	92.1
SGRD8	DINING	SD1	12"	500	1	749	518	521	104.2
SGRD9	DINING	SD1	12"	520	1	571	576	515	99.0
SGRD10	MENS RR	SD5	6"	100	1	35	27	91	91.0
SGRD11	RR VESTIBULE	SD5	6"	100	1	24	49	90	90.0
SGRD12	WOMENS RR	SD5	6"	50	1	41	40	49	98.0
Total				4870		5145	4721	4766	97.86%

Completed By: Jacob Davidson on 10/17/2023

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: FAN - Exhaust

Asset: EF1 AREA:WOMEN'S RR

Unit Data		
	Design	**Actual**
MFG	Cook	GREENHECK
Model Num	GC-186	SP-B110ES-QD
Serial Num	-	152049618-0072
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	30.3W	NL
Motor Rpm	-	950
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	0.25
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	75	117
Fan RPM	-	950
Fan Rotation	-	CCW
Motor RPM	-	950
System SetPt	-	NO SPEED CONTROLLER
RL Voltage	-	121V
RL Amperage	-	0.23A

Completed By: Jacob Davidson on 10/17/2023

Notes:
UNIT DOES NOT HAVE A SPEED CONTROLLER.

Written By: Jacob Davidson on 10/17/2023

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Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: FAN - Exhaust

Asset: EF2 AREA:MEN'S RR

Unit Data		
	Design	**Actual**
MFG	Cook	GREENHECK
Model Num	GC-186	SP-B150-QD
Serial Num	-	154376225-0056
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	63.3W	NL
Motor Rpm	-	1050
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.8
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	150	184
Fan RPM	-	1050
Fan Rotation	-	CCW
Motor RPM	-	1050
System SetPt	-	NO SPEED CONTROLLER
RL Voltage	-	121V
RL Amperage	-	1.8A

Completed By: Jacob Davidson on 10/17/2023

Notes:
UNIT DOES NOT HAVE A SPEED CONTROLLER.

Written By: Jacob Davidson on 10/17/2023

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	Cook	CAPTIVE AIRE
Model Num	GC-186	CASRE18DD
Serial Num	-	5358200
Type	UTILITY	UTILITY
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	1.000	1
Motor Rpm	-	1150
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	3.44/1.72
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	1700	1652
Fan RPM	-	1117
Fan Rotation	-	CCW
Motor RPM	-	1117
System SetPt	-	60.3HZ
RL Voltage	-	164V VFD
RL Amperage	-	2.9A VFD

Completed By: Jacob Davidson on 10/17/2023

Notes:
CANNOT GET FAN PRESSURES ON UTILITY FAN.

Written By: Jacob Davidson on 10/17/2023

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: FAN - Exhaust

Asset: KEF2 AREA:FRYER

Unit Data		
	Design	**Actual**
MFG	Cook	CAPTIVE AIRE
Model Num	GC-186	DU50HFA
Serial Num	-	5358200
Type	UPBLAST/CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.500	1/2
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	6.3
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	775	782
Fan RPM	-	DD ECM
Fan Rotation	-	CCW
Motor RPM	-	DD ECM
System SetPt	-	60%
RL Voltage	-	122V
RL Amperage	-	2.34A
Total ESP	1.250	0.51"
Fan Inlet SP	-	-0.51"
Fan Discharge SP	-	ATM

Completed By: Jacob Davidson on 10/17/2023

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: FAN - Exhaust

Asset: KEF3 AREA:DISHWASHER

Unit Data		
	Design	**Actual**
MFG	Cook	CAPTIVE AIRE
Model Num	GC-186	DU33HFA
Serial Num	-	5358200
Type	UPBLAST/CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.333	1/3
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.3
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	525	558
Fan RPM	-	754
Fan Rotation	-	CCW
Motor RPM	-	754
System SetPt	-	40P
RL Voltage	-	122V
RL Amperage	-	0.55A
Total ESP	0.800"	0.13
Fan Inlet SP	-	-0.13
Fan Discharge SP	-	ATM

Completed By: Jacob Davidson on 10/17/2023

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CaptiveAire	CAPTIVE AIRE
Model Num	5424ND-2	5424 ND-2
Job / Serial Num	-	5358200
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	102"	102"
Hood Width	54"	54"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	16X16	16X16
Filter Qty 1	6	6
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	9.72	9.72
Filter1 FPM	-	166
Filter2 FPM	-	162
Filter3 FPM	-	180
Filter4 FPM	-	183
Filter5 FPM	-	187
Filter6 FPM	-	142
Filter Ave FPM(corr)	-	170
CFM	1700	1652

Cooking Equipment		
	Design	**Actual**
Item 1	-	GRIDDLE

Completed By: Jacob Davidson on 10/16/2023

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:FRYER

Unit Data		
	Design	**Actual**
MFG	CaptiveAire	CAPTIVE AIRE
Model Num	5424ND-2	5424 ND-2
Job / Serial Num	-	5358200
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	60"	60"
Hood Width	54"	54"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	16X16	16X16
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	165
Filter2 FPM	-	169
Filter3 FPM	-	149
Filter Ave FPM(corr)	-	161
CFM	775	782

Cooking Equipment		
	Design	**Actual**
Item 1	-	FRYERS

Completed By: Jacob Davidson on 10/16/2023

National TAB

Project: 10-16-23 FREDDYS - PROVO, UT

System/Unit: Kitchen Hood Type II

Asset: HD(Type2)3 AREA:DISHES

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	4224 VHB-G	4224 VHB
Serial Num	-	5358200
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42"	42"

Test Data		
	Design	**Actual**
Exhaust CFM	525	558

Completed By: Jacob Davidson on 10/17/2023