Report By:

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

NATIONAL TAB
INTELLIGENCE

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 07/14/2023

PROJECT

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

2604 BOB BULLOCK LOOP

LAREDO, TX 78045

Client

Lone Star Custard Holdings

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

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 filter access door does not close all the way
- DOAS HMI config error
- EF2 face plate isn’t secured
- HD2 lights don’t come on
- KEF1/KEF2 no grease trap in place
- KEF2 flex conduit needs to be longer
- RTU/DOAS gas lines aren’t on
- RTU1 not all filters installed
- RTU1 restroom and hallway dampers not accessible

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name : DOAS filter access door does not close all the way

Description : The door for the filter access does not close all the way and does not latch.

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 07/11/2023 - Jacob Davidson - National TAB

Project Issue File Details

DOOR
07/11/2023

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name : DOAS HMI config error

Description : DOAS HMI have an error “communications fault check configuration” and DOAS is not functioning as a result. Mike from Captive Aire is going to call tech in the morning and we will go over troubleshooting the addresses to resolve.

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 07/11/2023 - Jacob Davidson - National TAB

Project Issue File Details

HMIconfig
07/11/2023

Project Issue Response Details

- **07/12/2023 National TAB - Jacob Davidson**
  - On the phone with CA, we determined there is a problem with the CAT5 cable coming from the roof to the HMIs downstairs for the DOAS unit. The CA tech will be here tomorrow to inspect

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name : EF2 face plate isn’t secured

Description : EF2 restroom faceplate was screwed directly into drywall with no fastener and not secured. Tech is unable to attach to fan.

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 07/14/2023 - Jacob Davidson - National TAB

Project Issue File Details

Faceplate
07/14/2023

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name : HD2 lights don’t come on

Description : Lights turn on for HD1 but they do not turn on for HD2 after turning on the fans at the HMI.

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 07/11/2023 - Jacob Davidson - National TAB

Project Issue File Details

HD1
07/11/2023

HD2
07/11/2023

HMI
07/11/2023

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name : KEF1/KEF2 no grease trap in place

Description : Grease traps for both of the fans have not been installed.

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

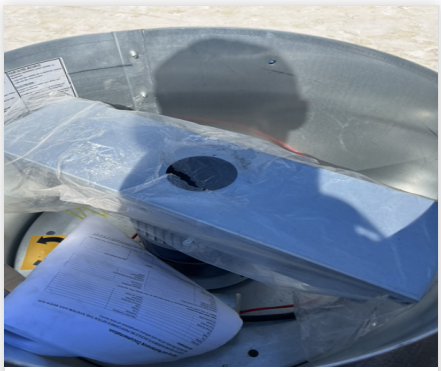
Status : Open

Originated Date : 07/11/2023 - Jacob Davidson - National TAB

Project Issue File Details

KEF2
07/11/2023

KEF1
07/11/2023



Infan
07/11/2023

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name : KEF2 flex conduit needs to be longer

Description : Flex conduit is not long enough to tilt fan completely back.

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 07/12/2023 - Jacob Davidson - National TAB

Project Issue File Details

Flex
07/12/2023

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name :	RTU/DOAS gas lines aren’t on		
Description :	Gas lines have not been turned on to either unit. This does not affect TAB.		
Created By :	National TAB	**Assigned To :**	National TAB - Jacob Davidson
Status :	Open		
Originated Date :	07/11/2023 - Jacob Davidson - National TAB		

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name : RTU1 not all filters installed

Description : RTU1 only has 2 construction filters installed of the 4 20x20x2 filters it needs

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

Status : Open

Originated Date : 07/11/2023 - Jacob Davidson - National TAB

Project Issue File Details

Folters
07/11/2023

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

Project Issue Information

Issue Name : RTU1 restroom and hallway dampers not accessible

Description : The dampers for the restroom and hallways supply diffusers on RTU1 are at the take off of the duct above hard ceiling where tech is unable to safely access. MC is not currently on site to assist. The restroom diffusers are high and the hallway diffuser is low.

Created By : National TAB

Assigned To : National TAB - Jacob Davidson

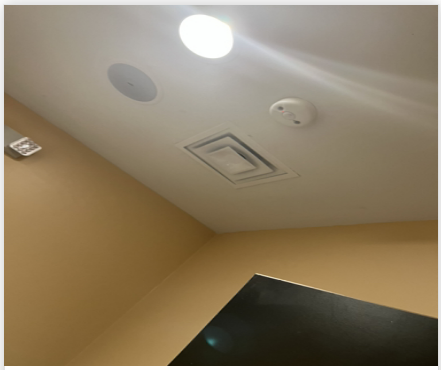
Status : Open

Originated Date : 07/12/2023 - Jacob Davidson - National TAB

Project Issue File Details

Aboveceiling
07/12/2023

Hallway
07/12/2023



Restroom
07/12/2023

Project Issue Response Details

- **07/14/2023 National TAB - Will Turnbough**
  - Recommend installing face dampers for the restroom diffusers and closing approximately 25% to ensure the restroom will have negative pressure.

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	4000	3946	3200	3159	800	787	20.0%	19.9%						
DOAS-1	Kitchenn	2800	2813	0	0	2800	2813	100.0%	100.0%						
KEF-1	Griddle											1600	1571		
KEF-2	Fryers											775	782		
KEF-3	Dishes											525	549		
EF-1	Men's RR													75	68
EF-2	Women's RR													75	70
TOTALS		6800	6759	3200	3159	3600	3600			0	0	2900	2902	150	138

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3600	3600
TOTAL EXHAUST	3050	3040
NET AIRFLOW	550	560

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	
SIDE	0.0078
REAR	0.0112
AVERAGE	**0.0095**

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:

Due to windy conditions, the front door measurement is not usable.

CheckList List

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

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/11/2023 - Brian Turnbough - National TAB		

CheckList Item Details

STORE FRONT

Comment:

Front(1)
07/12/2023

RTU-1

Comment:

Rtu1
07/12/2023

DOAS-1

Comment:

Doas
07/12/2023

KEF-1

Comment:

Kef1
07/12/2023

KEF-2

Comment:

Kef2
07/12/2023

KEF-3

Comment:

Kef3
07/12/2023

EF-1

Comment:

Ef1
07/12/2023

EF-2

Comment:

EF2
07/12/2023

HOOD-1

Comment:

Hood1
07/12/2023

HOOD-2

Comment:

Hd2
07/12/2023

HOOD-3

Comment:

Hood3
07/12/2023

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/11/2023 - Brian Turnbough - National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?

Comment:

YES

All hood filters installed and accounted for?

Comment:

YES

Hoods are wired and have power?

Comment:

YES

Hood is free of alarms?

Comment:

YES

Thermostats have power?

Comment:

YES, HOWEVER DOAS THERMOSTATS NOT RESPONDING

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

Comment:

DOAS has HMI config error. GC is aware.

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/11/2023 - 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?

Comment:

YES

DCV Max damper opening position is set to minimum?

Comment:

YES

Free cooling enthalpy set point set for lowest setting (Typically "D")

Comment:

YES

Motors are all operating below the FLA rating?

Comment:

YES

Are belts tight?

Comment:

YES

If direct drive unit is the speed controller working.

Comment:

YES

Is gas piping installed and valves turned on?

Comment:

YES

Unit free of noticeable noise and vibration

Comment:

YES

EF's

Rotation is correct?

Comment:

YES

Belts are tight?

Comment:

YES

Grease cup installed on hood fan?

Comment:

NO, NEED INSTALLED

Hinge kit installed installed on hood fan?

Comment:

YES

Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?

Comment:

YES

Flex conduit is long enough so that fan can be completely tilted back?

Comment:

NO, FLEX CONDUIT NEEDS TO BE LONGER

There is no major leakage around base of fan?

Comment:

NO MAJOR LEAKAGE

Is the motor operating below the motor FLA rating?

Comment:

YES

For restroom fan(s) is the back draft damper installed and can it fully open?

Comment:

N/A, CEILING FANS

Unit free of noticeable noise and vibration?

Comment:

YES

HOODS

Kitchen equipment installed in proper places?

Comment:

YES

Can kitchen equipment be turned on for final smoke test?

Comment:

NO, GAS NOT ON

DOCUMENTATION

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

Comment:

YES

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/11/2023 - 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?

Comment:

YES

Is space comfortable in all areas?

Comment:

YES

Is the space free of ventilation noise?

Comment:

YES

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

Comment:

NA

04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/11/2023 - Brian Turnbough - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

NONE, STARTUPS NOT DONE

List smoke candle type used

Comment:

45 SECOND SMOKE EMITTER

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	07/12/2023

Comment:

TAB tech name / Firm

Comment:

JACOB DAVIDSON / NATIONAL TAB INTELLIGENCE

Site super name / Firm

Comment:

ALAN GUIRGUIS / DALLAS COMMERCIAL BUILDERS LLC

Owner representative name / Firm (if Applicable)

Comment:

NA

Building pressure at front & back doors (All Systems On)

Comment:

BACK 0.0112" SIDE 0.0078" FRONT -0.019" WINDY CONDITIONS AT FRONT DOOR.

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?	No

Comment:

RTU is programmed. DOAS thermostats are still having issues.

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

System/Unit: AHU/RTU

Asset: DOAS1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Serial Num	-	5289253
Model Num	NA	CASRTU3-I.200-18-20T
Type	-	DOAS
Configuration	-	VERTICAL
Num OA Filters 1	-	4 METAL MESH
OA Filter Size 1	-	16X25X2
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	184T
Horsepower	-	2
Motor Rpm	-	1165
Phase	-	3
Rated Voltage	-	230/460
Rated Amperage	-	7.51/3.76

Test Data		
	Design	**Actual**
SF CFM	2800	2813
SF RPM	1399	1359
RA CFM	0	0
OA CFM	2800	2813
RL Voltage	-	206V VFD
RL Amperage	-	7.4A VFD
SF Rotation	-	CCW

Performance Data		
	Design	**Actual**
MA Plenum SP	-	0"
Fan Discharge SP	-	0.15"
Total ESP	-	0.15"

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

Notes:
Pressures of the unit were taken below ceiling at the highest point tech was able to drill into the takeoffs for the discharge and suction.

Written By: Jacob Davidson on 07/12/2023

National TAB

Project:04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

AHU/RTU

Diffuser Supply (GRD)

DOAS1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
DOAS1-SGRD1	KITCHEN	B	10"	300	1	162	221	323	107.7
DOAS1-SGRD2	KITCHEN	B	10"	300	1	210	326	285	95.0
DOAS1-SGRD3	KITCHEN	B	10"	300	1	200	316	328	109.3
DOAS1-SGRD4	KITCHEN	B	10"	300	1	199	297	293	97.7
DOAS1-SGRD5	KITCHEN	B	10"	300	1	206	318	321	107.0
DOAS1-SGRD6	KITCHEN	B	10"	300	1	200	300	294	98.0
DOAS1-SGRD7	KITCHEN	B	10"	300	1	189	309	321	107.0
DOAS1-SGRD8	KITCHEN	B	10"	300	1	223	354	271	90.3
DOAS1-SGRD9	KITCHEN	B	6"	100	0.778	66	140	105	105.0
DOAS1-SGRD10	KITCHEN	B	10"	300	1	172	259	272	90.7
Total				2800		1827	2840	2813	100.46%

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

System/Unit: AHU/RTU

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	Trane	CARRIER
Serial Num	-	4222P66224
Model Num	YSC102H3ELA	48HCDD12A2M5A6U3J0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1 METAL MESH
OA Filter Size 1	-	19.5X35
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	NL
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	60	9.2/4.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4.75”
Motor Bore Size	-	7/8”
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	7.25”
Fan Sheave Bore	-	1”
Belt CL Distance	-	16.75”
Num of Belts	-	1
Belt Size	-	AX49
Belt Alignment	-	VERIFIED GOOD

Test Data		
	Design	**Actual**
SF CFM	4000	3946
SF RPM	-	964
RA CFM	3200	3159
OA CFM	800	787
RL Voltage	-	211/210/211
RL Amperage	-	6.3/6.4/6.5
SF Rotation	-	CCW
RA Damper Position	-	74% HIGH / 61% LOW
Min OA Damper Position	-	26% HIGH / 39% LOW
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	DRY BULB 63 DEGREES

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.75"
Fan Suction SP	-	-1.18"
Fan Discharge SP	-	0.94"
Total ESP	0.8"	1.69"
Fan Total SP	-	2.12"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO, NEED NEW FILTERS
Condensate Drain Installed	-	YES

Notes:
Diffusers for the restrooms and hallway are unable to be balanced due to tech not being able to safely access dampers. Unit total and all other diffusers are balanced within design tolerance.

Written By: Jacob Davidson on 07/12/2023

National TAB

Project:04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

AHU/RTU

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU1-SGRD1	Dining	A	12"	400	1	469	369	372	93.0
RTU1-SGRD2	Dining	A	12"	400	1	475	351	362	90.5
RTU1-SGRD3	Dining	A	12"	400	1	434	382	384	96.0
RTU1-SGRD4	Dining	A	12"	400	1	425	386	390	97.5
RTU1-SGRD5	Dining	D	10"	200	1	350	213	210	105.0
RTU1-SGRD6	Dining	A	12"	400	1	339	447	429	107.3
RTU1-SGRD7	Dining	A	12"	400	1	400	371	379	94.8
RTU1-SGRD8	Dining	A	12"	400	1	430	383	384	96.0
RTU1-SGRD9	Dining	A	12"	400	1	310	429	413	103.3
RTU1-SGRD10	Dining	A	12"	400	1	353	395	405	101.3
RTU1-SGRD11	Dining	D	6"	50	1	57	66	67	134.0
RTU1-SGRD12	Dining	C	12"	100	1	55	79	82	82.0
RTU1-SGRD13	Dining	D	6"	50	1	52	72	69	138.0
Total				4000		4149	3943	3946	98.65%

Asset	Notes	Date	Written By
RTU1-SGRD11	Damper is above hard ceiling at the takeoff of the duct and tech is unable to safely access.	07/12/2023	Jacob Davidson
RTU1-SGRD12	Damper is above hard ceiling at the takeoff of the duct and tech is unable to safely access.	07/12/2023	Jacob Davidson
RTU1-SGRD13	Damper is above hard ceiling at the takeoff of the duct and tech is unable to safely access.	07/12/2023	Jacob Davidson

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

System/Unit: FAN - Exhaust

Asset: EF1 AREA:WOMENS' RESTROOM

Unit Data		
	Design	**Actual**
MFG	Cook	BROAN
Model Num	GC-146	671-J
Serial Num	-	NL
Type	DD	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	BROAN-NUTONE
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	1.5
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	68
Fan Rotation	-	CW
System SetPt	-	NONE
RL Voltage	-	119
RL Amperage	-	1.02
Total ESP	1/4"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	NA

Completed By: Jacob Davidson on 07/12/2023

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

System/Unit: FAN - Exhaust

Asset: EF2 AREA:MENS' RESTROOM

Unit Data		
	Design	**Actual**
MFG	Cook	BROAN
Model Num	GC-146	671-J
Serial Num	-	NL
Type	DD	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	BROAN-NUTONE
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	1
Voltage (rated)	208	120
Amperage (rated)	-	1.5
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	70
Fan Rotation	-	CW
System SetPt	-	NONE
RL Voltage	-	119
RL Amperage	-	1.01
Total ESP	1/4"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	NA

Completed By: Jacob Davidson on 07/12/2023

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVE AIRE
Model Num	CASRE18DD	CASRE18DD
Serial Num	-	5289253
Type	UTILITY	UTILITY
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	1.000	1.5
Motor Rpm	1107	1740
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	4.03/2.02
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	1600	1571
Fan RPM	-	1291
Fan Rotation	-	CCW
Motor RPM	-	1291
System SetPt	-	44.5HZ
RL Voltage	-	180V VFD
RL Amperage	-	3.9A VFD
Total ESP	1.500	N/A
Fan Inlet SP	-	N/A
Fan Discharge SP	-	N/A

Notes:
Tech is unable to get static pressures from a utility fan.

Written By: Jacob Davidson on 07/12/2023

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

System/Unit: FAN - Exhaust

Asset: KEF2 AREA:FRYER

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVE AIRE
Model Num	DU50HFA	DU50HFA
Serial Num	-	5289253
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.5	1/2
Motor Rpm	1532	1800
Phase	0	1
Voltage (rated)	115	115
Amperage (rated)	-	6.3
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	775	782
Fan RPM	-	1530
Fan Rotation	-	CCW
Motor RPM	-	1530
System SetPt	-	85%
RL Voltage	-	119
RL Amperage	-	6.1
Total ESP	1.250	1.08
Fan Inlet SP	-	-1.08
Fan Discharge SP	-	ATM

Completed By: Jacob Davidson on 07/12/2023

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

System/Unit: FAN - Exhaust

Asset: KEF3 AREA:DISHES

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVE AIRE
Model Num	DU33HFA	DU33HFA
Serial Num	-	5289253
Type	-	UPBLAST
Configuration	-	VERTICAL

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

Test Data		
	Design	**Actual**
CFM	525	549
Fan RPM	-	776
Fan Rotation	-	CCW
Motor RPM	-	776
System SetPt	-	44P
RL Voltage	-	120V
RL Amperage	-	0.60
Total ESP	-	0.12
Fan Inlet SP	-	-0.12
Fan Discharge SP	-	ATM

Completed By: Jacob Davidson on 07/12/2023

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

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	-	5289253
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	96"	96"
Hood Width	54"	54"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	8.1	8.1
Filter1 FPM	-	186
Filter2 FPM	-	203
Filter3 FPM	-	214
Filter4 FPM	-	192
Filter5 FPM	-	177
Filter Ave FPM(corr)	-	194
CFM	1600	1571

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

Completed By: Jacob Davidson on 07/14/2023

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

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	-	5289253
Type	TYPE II	TYPE I CANOPY
Hood length	60	60"
Hood Width	54	54"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	3	3
Filter AK factor size 1	-	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	160
Filter2 FPM	-	166
Filter3 FPM	-	159
Filter Ave FPM(corr)	-	161
CFM	775	782

Cooking Equipment		
	Design	**Actual**
Item 1	-	FRYERS
Item 2	-	

Completed By: Jacob Davidson on 07/12/2023

National TAB

Project: 04-03-23 FREDDY'S - LAREDO, TX (INTERNATIONAL)

System/Unit: Kitchen Hood Type II

Asset: HD3 AREA:DISHES

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVE AIRE
Model Num	4224 VHB-G	4224 VHB-G
Serial Num	-	5289253
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42"	42"

Test Data		
	Design	**Actual**
Exhaust CFM	525	549

Completed By: Jacob Davidson on 07/12/2023