Report By:

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

NATIONAL TAB

Comfort. Under control.

Report: FINAL TAB REPORT
Function: Test, Adjust, & Balance
Date: 09/29/2022

PROJECT

09-26 HAWAIIAN BROS - FLORISSANT, MO

13963 STATE HWY

FLORISSANT, MO 63033

Client

Hawaiian Bros

720 Main ST

Kansas City, MO 64105

National TAB

Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

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.

DOAS w/ Diffusers

Each of the DOAS were measured at their terminal devices or via traverse to establish a total flow for that unit. Each DOAS 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.

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	DINING	3200	3061	1350	1174	1850	1887	57.8%	61.6%						
RTU-2	KITCHEN	2750	2704	0	0	2750	2704	100.0%	100.0%						
RTU-3	KITCHEN	3500	3542	1700	1697	1800	1845	51.4%	52.1%						
EF-1	HD1 / HD2											4025	3987		
EF-2	HD3											2025	2041		
EF-3	CO2 FAN													200	187
EF-4	RESTROOMS													150	151
TOTALS		9450	9307	3050	2871	6400	6436			0	0	6050	6028	350	338

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	6400	6436
TOTAL EXHAUST	6400	6366
NET AIRFLOW	0	70

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.001
SIDE	NA
REAR	0.
AVERAGE	**0.0005**

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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09-26 HAWAIIAN BROS - FLORISSANT, MO

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

STORE FRONT

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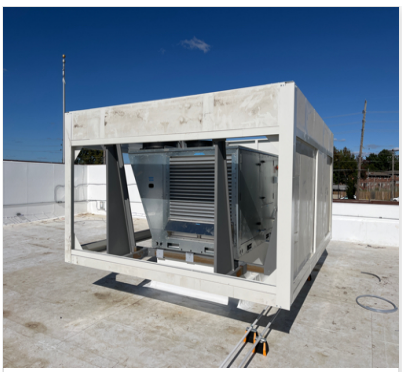
RTU-1



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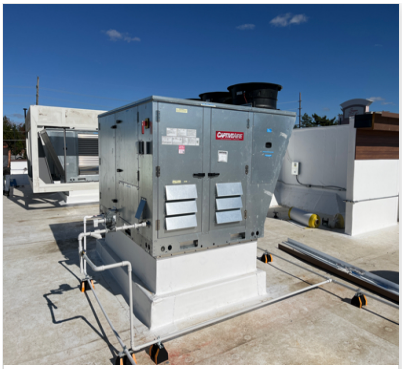

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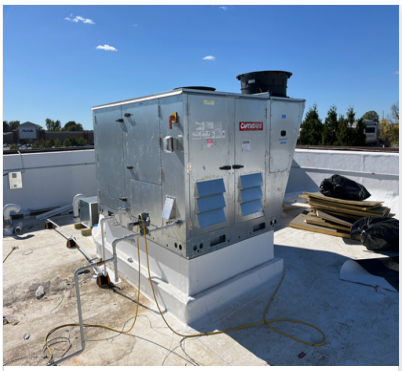

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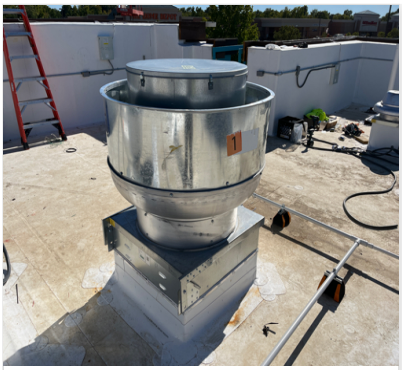

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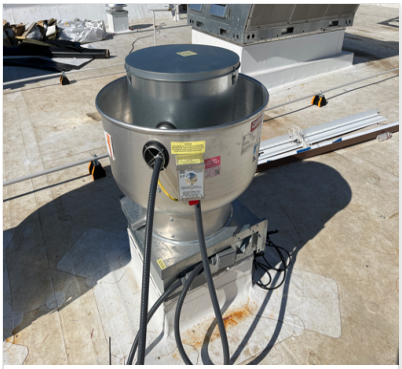

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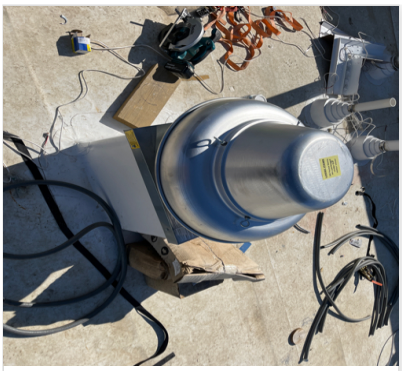

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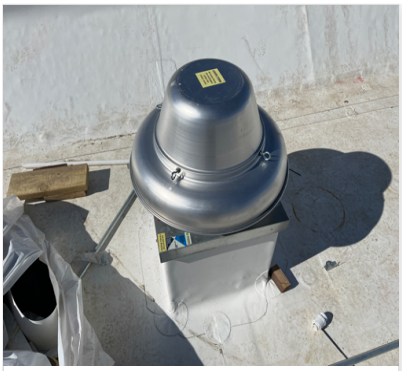

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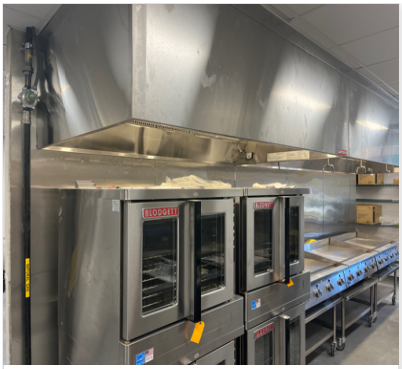
HOOD-1



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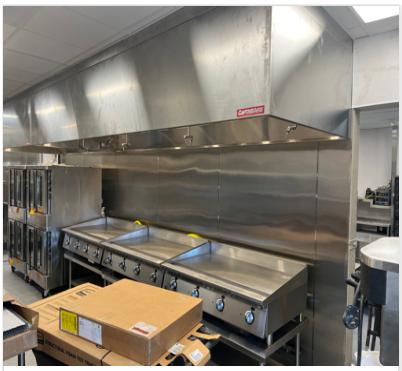

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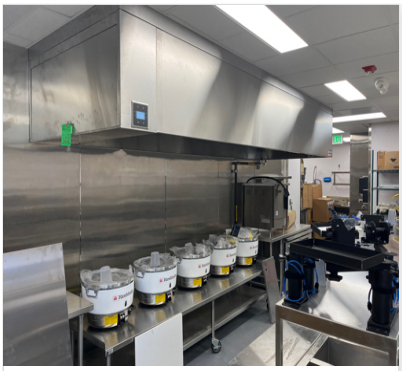

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Notes/Comments :

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09-26 HAWAIIAN BROS - FLORISSANT, MO

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

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

Notes/Comments :

Comfort. Under control.

09-26 HAWAIIAN BROS - FLORISSANT, MO

CheckList Information

Name : TECH - STEP 2: UNIT DATA AND EVAL **Status :** Submitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : 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
DCV Max damper opening position is set to minimum?	YES
Free cooling enthalpy set point set for lowest setting (Typically "D")	NA
Motors are all operating below the FLA rating?	YES
Are belts tight?	DD
If direct drive unit is the speed controller working.	YES
Is gas piping installed and valves turned on?	YES
Unit free of noticeable noise and vibration	YES
EF's	
Rotation is correct?	YES
Belts are tight?	DD
Grease cup installed on hood fan?	YES
Hinge kit installed installed on hood fan?	YES
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	YES

Flex conduit is long enough so that fan can be completely tilted back?	YES
There is no major leakage around base of fan?	YES
Is the motor operating below the motor FLA rating?	YES
For restroom fan(s) is the back draft damper installed and can it fully open?	YES
Unit free of noticeable noise and vibration?	YES
MUA	
Rotation is correct?	NA
Gas piping is installed and valves are in on position?	NA
Heater tested and is functional?	NA
Internal motorized damper is fully opening?	NA
Motor is operating below the FLA rating?	NA
Unit free of noticeable noise and vibration?	NA
HOODS	
Kitchen equipment installed in proper places?	YES
Can kitchen equipment be turned on for final smoke test?	NO
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

Notes/Comments :

Comfort. Under control.

09-26 HAWAIIAN BROS - FLORISSANT, MO

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	YES, THERE ARE CEILING FANS THAT YOU CAN FEEL A DRAFT WHEN STANDING UNDER THOUGH.
Is space comfortable in all areas?	YES
Is the space free of ventilation noise?	YES
If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".	NA

Notes/Comments :

Comfort. Under control.

09-26 HAWAIIAN BROS - FLORISSANT, MO

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL TESTS	
HOOD CAPTURE TEST	
List equipment turned on for testing	NONE
List smoke candle type used	SMOKE EMITTER
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%
WITNESS	
Date test was completed	09/28/2022
TAB tech name / Firm	TRAVIS HALTER / NATIONAL TAB
Site super name / Firm	JARRED BOURISAW / J.E. FOSTER BUILDING COMPANY
Owner representative name / Firm (if Applicable)	NA
Building pressure at front & back doors (All Systems On)	0.001 AVE
ADDITIONAL	
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	YES
Thermostats are programmed?	YES

Notes/Comments :

National TAB

Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5448874
Model Num	CASRTU3-I.300-20-15T-DOAS	CASRTU3-I.250-20-15T-DOAS
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	14x23
Num Final Filter 1	-	8
Final Filter Size 1	-	20x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	213T
Horsepower	7.50	3
Motor Rpm	-	1175
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	9.2/4.6

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

Test Data		
	Design	**Actual**
SF CFM	3200	3061
SF RPM	-	1390 @ 71.0 Hz
RA CFM	1350	1174
OA CFM	1850	1887
RL Voltage	-	211/211/211
RL Amperage	-	9.2 AVE
SF Rotation	-	CW, CORRECT
RA Damper Position	-	53%
Min OA Damper Position	-	47%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**

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

Completed By: Travis Halter

Notes:

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SD-BRANCH 2	ORDERING	SG2SD	8/6	2360	1	2191	2247	2247	95.2
SGRD1	NORTH VESTIBULE	SG2S	16/6	315	1	297	301	301	95.6
SGRD3	DOLE WHIP	SG2S	12/10	315	1	274	296	296	94.0
SGRD4	SOUTH VESTIBULE	SG2S	8/8	160	1	225	166	166	103.8
SGRD5	RESTROOM	SG3S	6"	25	1	35	27	27	108.0
SGRD6	RESTROOM	SG3S	6"	25	1	39	24	24	96.0

Completed By: Brianna Biggs on

National TAB

Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU2 AREA:MIDDLE KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5448874
Model Num	CASRTU3-I.300-18-20T-DOAS	CASRTU3-I.400-18-20T-DOAS
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	23x14
Num Final Filter 1	-	8
Final Filter Size 1	-	20x25x2

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

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

Test Data		
	Design	**Actual**
SF CFM	2750	2704
SF RPM	-	1254 @ 43.0 Hz
RA CFM	0	0
OA CFM	2750	2704
RL Voltage	-	211/211/211
RL Amperage	-	8.7 AVE
SF Rotation	-	CW, CORRECT
RA Damper Position	-	CLOSED
Min OA Damper Position	-	100%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**

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

Completed By: Travis Halter

Notes:

National TAB

Project:09-26 HAWAIIAN BROS - FLORISSANT, MO

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU2/MIDDLE KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	SG1	12"	550	1	367	318	517	94.0
SGRD2	RICE & VEGGIE	SG1	12"	550	1	694	592	543	98.7
SGRD3	RICE & VEGGIE	SG1	12"	550	1	749	638	576	104.7
SGRD4	DRIVE THRU	SG1	12"	550	1	716	619	525	95.5
SGRD5	DRIVE THRU	SG1	12"	550	1	654	553	543	98.7

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Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU3 AREA:BACK KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5448874
Model Num	CASRTU3-I.250-20-15T-DOAS	CASRTU3-I.250-20-12.5T-DOAS
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	23x14
Num Final Filter 1	-	8
Final Filter Size 1	-	20x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	213T
Horsepower	3	3
Motor Rpm	-	1175
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	9.2/4.6

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

Test Data		
	Design	**Actual**
SF CFM	3500	3542
SF RPM	-	1233 @ 63.0 Hz
RA CFM	1700	1697
OA CFM	1800	1845
RL Voltage	-	212/212/212
RL Amperage	-	7.8 AVE
SF Rotation	-	CW, CORRECT
RA Damper Position	-	43%
Min OA Damper Position	-	57%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**

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

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Notes:

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Project:09-26 HAWAIIAN BROS - FLORISSANT, MO

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU3/BACK KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	OFFICE	SG1	8"	100	1	217	102	102	102.0
SGRD2	WAREWASH	SG1	12"	500	1	499	489	489	97.8
SGRD3	PORK COOKING	SG1	12"	500	1	502	510	510	102.0
SGRD4	PORK COOKING	SG1	12"	500	1	534	512	512	102.4
SGRD5	MARINATING	SG1	8"	100	1	178	92	92	92.0
SGRD6	COOKLINE	SG1	12"	500	1	379	459	459	91.8
SGRD7	COOKLINE	SG1	12"	500	1	563	534	534	106.8
SGRD8	SODA ROOM	SG1	10"	300	1	333	319	319	106.3
SGRD9	COOKLINE	SG1	12"	500	1	544	525	525	105.0

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Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF1 AREA:HD1 / HD2

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU240HFA	DU240HFA
Serial Num	-	5448874
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	215T
Horsepower	5	5
Motor Rpm	-	1170
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	14.1/7.05
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	4025	3987
Fan RPM	894	1113
Fan Rotation	-	CCW, CORRECT
Motor RPM	-	1113
System SetPt	-	56.6 Hz
RL Voltage	-	211
RL Amperage	-	10.6
Total ESP	1.5"	1.88”
Fan Inlet SP	-	-1.88”
Fan Discharge SP	-	ATM

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Notes:

National TAB

Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF2 AREA:HD3

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	5448874
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	1	1
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	6.9
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	2025	2041
Fan RPM	1308	918
Fan Rotation	-	CCW, CORRECT
Motor RPM	-	918
System SetPt	-	51 Hz
RL Voltage	-	210
RL Amperage	-	1.4
Total ESP	0.650"	0.41”
Fan Inlet SP	-	-0.41”
Fan Discharge SP	-	ATM

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Notes:

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Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF3 AREA:SODA ROOM

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	5448874
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.250	0.25
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.9
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	200	187
Fan RPM	1070	1062
Fan Rotation	-	CCW, CORRECT
Motor RPM	-	1062
System SetPt	-	59 Hz
RL Voltage	-	122
RL Amperage	-	0.68
Total ESP	0.380"	0.21”
Fan Inlet SP	-	-0.21”
Fan Discharge SP	-	ATM

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Notes:

National TAB

Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF4 AREA:RESTROOMS

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	5448874
Type	DOWNBLAST	DOWNBLAST
Configuration	HORIZONTAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TRLCO GREEN
Frame	-	NL
Horsepower	0.250	0.25
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.9
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	150	151
Fan RPM	1190	644
Fan Rotation	-	CCW, CORRECT
Motor RPM	-	644
System SetPt	-	38
RL Voltage	-	123
RL Amperage	-	0.23
Total ESP	0.500"	0.28”
Fan Inlet SP	-	-0.28”
Fan Discharge SP	-	ATM

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Notes:

National TAB

Project:09-26 HAWAIIAN BROS - FLORISSANT, MO

FAN - Exhaust

Comfort. Under control.

Diffuser Ret/Exh (GRD)

EF4/RESTROOMS

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	RESTROOM	EG1S	6"	75	1	162	45	69	92.0
EGRD2	RESTROOM	EG1S	6"	75	1	182	65	82	109.3

Completed By: Brianna Biggs on

National TAB

Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD1 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	5448874
Type	TYPE I LOW PROXIMITY	TYPE I
Hood length	89"	89"
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	-	125
Filter2 FPM	-	156
Filter3 FPM	-	151
Filter4 FPM	-	145
Filter5 FPM	-	136
Filter Ave FPM(corr)	-	143
CFM	1115	1158

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

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Notes:

National TAB

Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD2 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	5448874
Type	TYPE I LOW PROXIMITY	TYPE I
Hood length	155"	155"
Hood Width	54"	54"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	9	9
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	14.58	14.58
Filter1 FPM	-	204
Filter2 FPM	-	194
Filter3 FPM	-	191
Filter4 FPM	-	185
Filter5 FPM	-	175
Filter6 FPM	-	177
Filter7 FPM	-	197
Filter8 FPM	-	208
Filter9 FPM	-	216
Filter Ave FPM(corr)	-	194
CFM	2910	2829

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

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Notes:

National TAB

Project: 09-26 HAWAIIAN BROS - FLORISSANT, MO

System/Unit: Kitchen Hood Type II

Comfort. Under control.

Asset: HD3 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 VHB-ND	5424 VHB-ND
Serial Num	-	5424 VHB
Type	TYPE II LOW PROXIMITY	TYPE II
Hood length	162"	162"
Hood Width	54"	54"

Test Data		
	Design	**Actual**
Exhaust CFM	2025	2041

Completed By: Travis Halter

Notes: