

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: 8/30/2022**

**PROJECT
08-08 CULVERS - ROGERS, AR**

4204 W NEW HOPE ST

ROGERS , AR 72758

Client

Accurex
PO Box 410
Schofield, WI 54476

National TAB

Project: 08-08 CULVERS - ROGERS, AR

Table Of Contents

Section	Page #
Summary	3
Remarks	4
Balance Schedule	24
Site Pictures	25
Checklists	30
AHU/RTU	32
FAN - Exhaust	36
Kitchen Hood Type I	42
Kitchen Hood Type II	44
GRD Layout	45

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)

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.

General Exhaust Fans

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.

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : HD1 and HD2 cannot be turned off via HMI

Description : Responsibility - MC/EC Hoods are turned on and HMI won't allow them to be turned off. Error screen says fans cannot be turned off.

Created By : National TAB **Assigned To :** National TAB - Will Turnbough

Status : Open

Originated Date : 08/12/2022 - Jacob Davidson - National TAB

Project Issue File Details



FuseIT5173c442bc8c44.jpeg



FuseIT29730f0da56148.jpeg

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : Hoods not powered

Description : Responsibility- electrician Hoods are not powered yet. Spoke with electrician and he has units ready to be powered on, there are still some command wires that need landed. They will be ready to test and balance either later today or tomorrow 8/11.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Closed

Originated Date : 08/10/2022 - Jacob Davidson - National TAB

Project Issue Response Details

- **08/11/2022 National TAB - Jacob Davidson**
 - Hoods are powered and can now be balanced.

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : PRV 3 fan cannot tilt back

Description : Responsibility - MC After MC swapped fans, PRV3 cannot lean back freely. Fan is stuck on curb.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Open

Originated Date : 08/12/2022 - Jacob Davidson - National TAB

Project Issue File Details



FuselTb5d3246eddac48.jpeg

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : PRV-3 and PRV-2 installed backwards on roof

Description : The fans are in the wrong position on roof and don't coincide with their hood positions in the restaurant. Fans need to be swapped.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

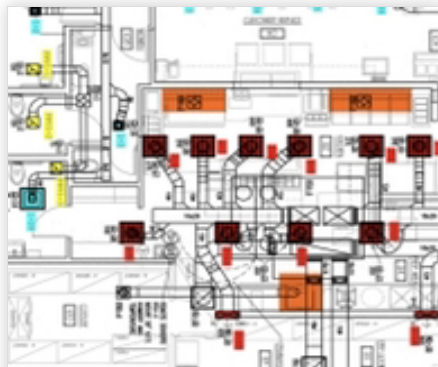
Status : Closed

Originated Date : 08/11/2022 - Jacob Davidson - National TAB

Project Issue File Details



Onroof.jpeg



GRD.jpeg



Inrestaurant.jpeg

Project Issue Response Details

- **08/11/2022** **National TAB - Jacob Davidson**
 - MC came to site and swapped fans to their proper positions

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : PRV2 and PRV3 grease traps preventing fan from leaning back

Description : Fans cannot lean back all the way because the grease traps are installed too high. These need to be lowered in order to tilt fan back completely.

Created By : National TAB **Assigned To :** National TAB - Will Turnbough

Status : Closed

Originated Date : 08/11/2022 - Jacob Davidson - National TAB

Project Issue File Details



PRV2.jpeg



PRV3.jpeg

Project Issue Response Details

- **08/11/2022** **National TAB - Jacob Davidson**
 - MC has lowered the traps and fans can be tilted all the way back now.

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : RTU1 "Smoke Alarm" status

Description : Responsibility - MC RTU1 is showing a "Smoke Alarm" status and is not running normally as a result. Resetting the unit has not resolved. The unit is still able to be put into test mode with cooling. Unit has already been balanced.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

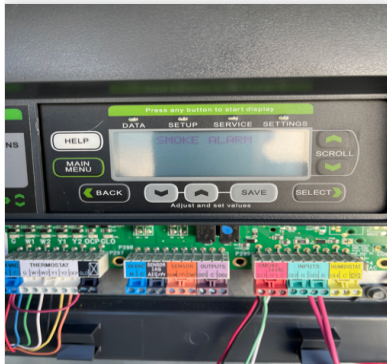
Status : Open

Originated Date : 08/11/2022 - Jacob Davidson - National TAB

Project Issue Response Details

- **08/12/2022 National TAB - Jacob Davidson**

- Attached photo of prodigy board screen.



Board.jpeg

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : RTU1 and RTU2 humidistat not wired

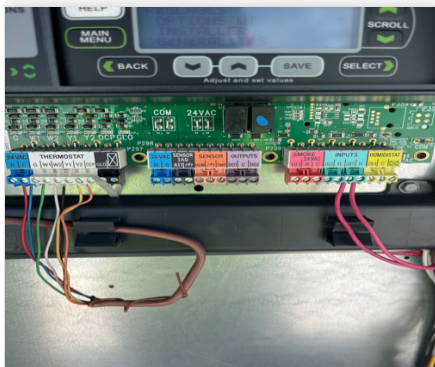
Description : Responsibility - MC Humidistat for each unit has not been landed to unit. I spoke to the MC and this is still on backorder currently.

Created By : National TAB **Assigned To :** National TAB - Will Turnbough

Status : Open

Originated Date : 08/10/2022 - Jacob Davidson - National TAB

Project Issue File Details



Humidistatmissing.jpeg

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : RTU1 and RTU2 OCP wiring

Description : Responsibility - MC Unit not wired for occupancy. This is needed in order for the Economizer to open and function. MC assisted and we have jumped R to OCP in order to open the economizer for our purposes.

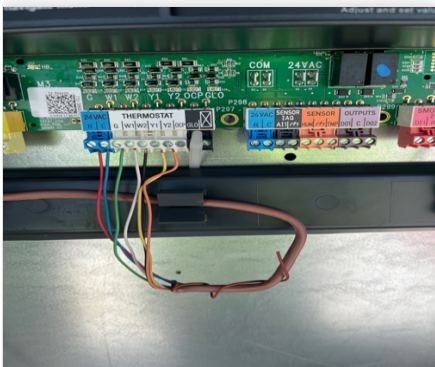
Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Open

Originated Date : 08/10/2022 - Jacob Davidson - National TAB

Project Issue File Details



Unitwiring.jpeg

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : RTU1 motor pulley stuck

Description : Motor pulley of unit needs to be loosened to slow unit down to prevent from overamping. // MC on site was able to get pulley loose.

Created By : National TAB **Assigned To :** National TAB - Will Turnbough

Status : Closed

Originated Date : 08/10/2022 - Jacob Davidson - National TAB

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : RTU1 RTU2 won't run cooling
Description : Responsibility - MC Thermostats are calling for cooling and units say they are cooling but condensers are not running
Created By : National TAB **Assigned To :** National TAB - Will Turnbough
Status : Open
Originated Date : 08/11/2022 - Jacob Davidson - National TAB

Project Issue File Details



Thermostats.jpeg

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : RTU2 motor pulley stuck

Description : Pulley is stuck in place and needs to be loosened as the unit is overramping at the current speed it is at. // MC was able to loosen pulley.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Closed

Originated Date : 08/10/2022 - Jacob Davidson - National TAB

Project Issue File Details



RTU2.jpeg

08-08 CULVERS - ROGERS, AR

Project Issue Information

Issue Name : RTU2 prodigy board malfunctioning

Description : Board displays options in another language and has mostly question marks on display. Unable to adjust language or change settings.

Created By : National TAB **Assigned To :** National TAB - Will Turnbough

Status : Open

Originated Date : 08/10/2022 - Jacob Davidson - National TAB

Project Issue File Details



Prodigy.jpeg

Project Issue Response Details

- **08/10/2022** **National TAB - Jacob Davidson**
 - After troubleshooting with LENNOX, we determined that the unit needs a new board, which will be covered under warranty. MC and GC have been made aware.

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	6000	5840	4050	3996	1950	1844	32.5%	31.6%						
RTU-2	KITCHEN	6000	NA	4100	NA	1900	NA	31.7%	NA						
PRV-1	RESTROOMS													375	373
PRV-2	HD1 GRIDDLE											1500	1487		
PRV-3	HD2 FRYERS											1500	1522		
PRV-4	HD3 DISHWASHER											350	NA		
EF-1	MOP ROOM													75	73
TOTALS		12000	5840	8150	3996	3850	1844			0	0	3350	3009	450	446

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3850	1844
TOTAL EXHAUST	3800	3455
NET AIRFLOW	50	-1611

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	
SIDE	-0.0158
REAR	
AVERAGE	-0.0158

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:

08-08 CULVERS - ROGERS, AR

CheckList Information

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

CheckList Item Details

STORE FRONT



Front.jpeg

RTU-1



RTU1.jpeg

RTU-2



RTU2.jpeg

PRV-1



PRV1.jpeg

PRV-2



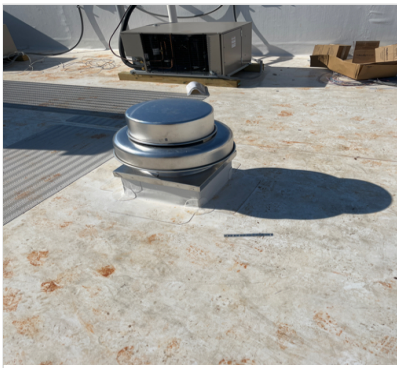
PRV2.jpeg

PRV-3



PRV3.jpeg

PRV-4



PRV4.jpeg

EF-1A



Mopfan.jpeg

HOOD 1



HD1.jpeg

HOOD 2



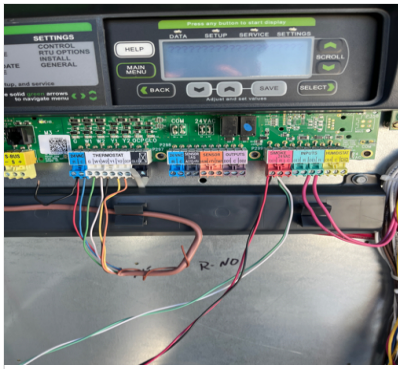
HD2.jpeg

HOOD 3

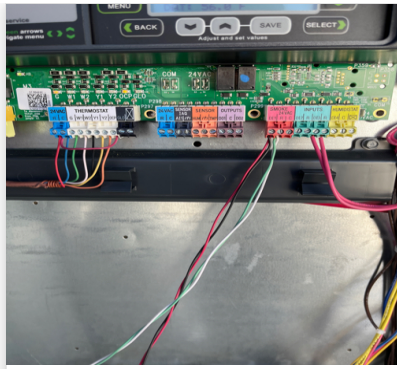


HD3.jpeg

PRODIGY BOARD WIRING

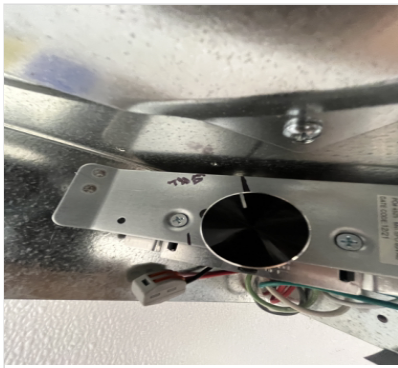


RTU2.jpeg



RTU1.jpeg

EF1A SETPOINT



Set.jpeg

Notes/Comments :

08-08 CULVERS - ROGERS, AR

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	Status :	NotSubmitted
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
---	-----

Perforated diffusers are installed on the cook line? (4-ways will disrupt hood capture)	YES
---	-----



Diffusers.jpeg

All hood filters installed and accounted for?	NO, FILTERS ACCOUNTED FOR BUT NOT INSTALLED
---	---



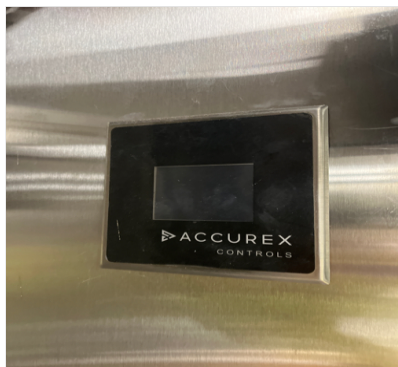
Griddle.jpeg



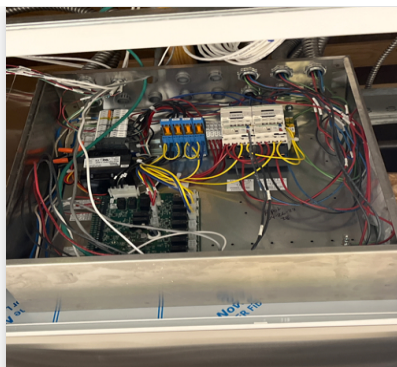
Fryers.jpeg

Hoods are wired and have power?

NO, ELECTRICIAN IS WORKING ON AND WILL HAVE POWERED 8/11 or 8/12



HMI.jpeg



Electricbox.jpeg

Thermostats have power?

YES



Thermostats.jpeg

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

YES

On the cookline diffusers neck is there 18" (12" minimum) straight rigid duct run attached?

YES



Flexoverstraight.jpeg

Notes/Comments :

08-08 CULVERS - ROGERS, AR

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	Status :	NotSubmitted
Assigned Organization :	National TAB	Asset :	
Requesting Organization :	National TAB		

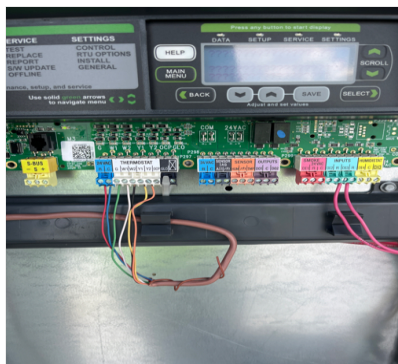
CheckList Item Details

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

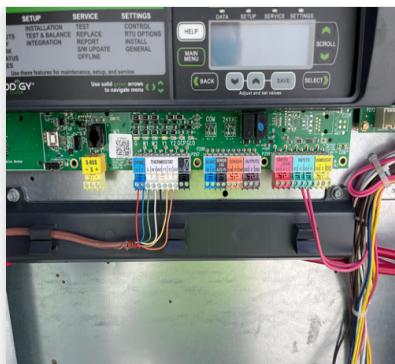
RTU's/AHU's

Economizers are assembled and functional?

Thermostat wire run from OCP on the RTU to the Ec terminal at the thermostat? If no, jumper can be installed from R to OCP temporarily. (The economizers will not open without OCP being energized.) No.



RTU1.jpeg



RTU2.jpeg

Motors are all operating below the FLA rating?	YES
Are belts tight?	YES
If direct drive unit is the speed controller working.	NA
Is gas piping installed and valves turned on?	INSTALLED. NOT ON



RTU1.jpeg



RTU2.jpeg

Unit free of noticeable noise and vibration

YES

EF's

Rotation is correct?

Belts are tight?

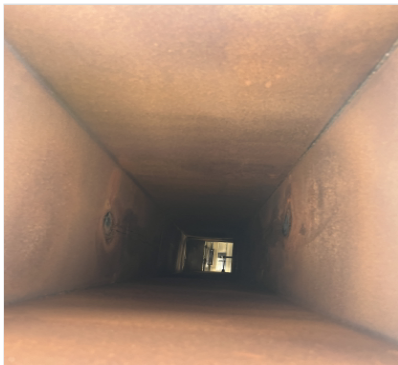
Grease cup installed on hood fan?

Hinge kit installed installed on hood fan?

YES

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

YES



PRV2.jpeg



PRV3.jpeg

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

YES

There is no major leakage around base of fan?

Is the motor operating below the motor FLA rating?

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

YES



Bddamper.jpeg

Unit free of noticeable noise and vibration?

The hood exhaust fans are installed in correct positions and are not switched?

NO. FANS ARE SWITCHED. NEED TO BE SWAPPED



FuseITb1644f443cf24cb...



FuseIT88872d75102a4fb...



File.jpeg

HOODS

Kitchen equipment installed in proper places?

YES

Can kitchen equipment be turned on for final smoke test?

NO, START UPS NOT DONE



Fryers.jpeg

Second stage Grease Grabber filters are installed on the griddle hood?

DOCUMENTATION

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

Notes/Comments :



Comfort. Under control.

08-08 CULVERS - ROGERS, AR

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?

Is space comfortable in all areas?

Is the space free of ventilation noise?

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

Notes/Comments :



Comfort. Under control.

08-08 CULVERS - ROGERS, AR

CheckList Information

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

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

List smoke candle type used

Smoke test capture - Perimeter of hood

Smoke test capture - Top of cooking surface

WITNESS

Date test was completed

TAB tech name / Firm

Site super name / Firm

Owner representative name / Firm (if Applicable)

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

ADDITIONAL

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)

Thermostats are programmed?

PRODIGY SETTINGS FOR RTU'S

Parameter 65 set to 0

Parameter 78 set to 0

Parameter 105 set to 6

Parameter 156 set to 70 (Dining unit only)

Parameter 156 set to 65 (Kitchen Unit Only)

Parameter 170 set to 75 (Dining Unit Only)

Parameter 170 set to 70 (Kitchen Unit Only)

Parameter 131 set to the same % as OA minimum position?

Parameter 117 set to the same % as OA minimum position?

Notes/Comments :

National TAB

Project: 08-08 CULVERS - ROGERS, AR
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU1

AREA: DINING

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622F07312
Model Num	NA	LGH180H4BS4Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	13X23
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	Actual
Motor MFG	-	INTERLINK
Frame	-	56HZ
Horsepower	-	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	200-230
Rated Amperage	-	8.0-7.8

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.75"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	5 TURNS OUT
Fan Sheave Size	-	BK72
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20.5"
Num of Belts	-	1
Belt Size	-	BX55
Belt Alignment	-	VERIFIED

Test Data		
	Design	Actual
SF CFM	6000	5840
SF RPM	-	733
RA CFM	4050	3996
OA CFM	1950	1844
RL Voltage	-	211/210/212
RL Amperage	-	5.8/5.9/6.1
SF Rotation	-	CCW
RA Damper Position	-	49%
Min OA Damper Position	-	49%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	19 mA

Performance Data		
	Design	Actual
MA Plenum SP	-	0.47"
Fan Suction SP	-	-0.67"
Fan Discharge SP	-	0.23"
Total ESP	-	0.70"
Fan Total SP	-	0.90"

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

Completed By: Dan Hertenstein

Notes:

National TAB

Project:08-08 CULVERS - ROGERS, AR

AHU/RTU



Comfort. Under control.

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	ENTRY	CD13	8"	150	1	188	182	140	93.3
SGRD2	MENS RR	CD15	8"	125	1	118	94	124	99.2
SGRD3	WOMENS RR	CD15	8"	125	1	158	147	125	100.0
SGRD4	HALL	CD16	12"	450	1	355	323	453	100.7
SGRD5	DINING	CD10	8"	125	1	3	190	123	98.4
SGRD6	DINING	CD10	8"	150	1	197	205	148	98.7
SGRD7	DINING	CD10	8"	150	1	239	223	165	110.0
SGRD8	DINING	CD10	8"	150	1	227	199	162	108.0
SGRD9	DINING	CD10	8"	150	1	149	126	146	97.3
SGRD10	DINING	CD10	8"	125	1	6	134	118	94.4
SGRD11	DINING	CD10	8"	150	1	245	227	178	118.7
SGRD12	DINING	CD10	8"	150	1	171	155	143	95.3
SGRD13	DINING	CD10	8"	150	1	247	214	164	109.3
SGRD14	DINING	CD10	8"	125	1	223	170	143	114.4
SGRD15	DINING	CD10	8"	125	1	303	259	128	102.4
SGRD16	DINING	CD10	8"	150	1	184	154	148	98.7
SGRD17	DINING	CD10	8"	150	1	223	200	149	99.3
SGRD18	DINING	CD10	8"	150	1	224	192	145	96.7
SGRD19	DINING	CD10	8"	150	1	181	160	137	91.3
SGRD20	DRINKS & CONDIMENT S	CD18	10"	300	1	20	349	288	96.0
SGRD21	ENTRY	CD10	8"	150	1	144	141	182	121.3
SGRD22	CUSTOMER ORDER AREA	CD16	12"	450	1	386	340	437	97.1
SGRD23	CUSTOMER SERVICE	WD10	10"	350	1	414	370	356	101.7
SGRD24	CUSTOMER SERVICE	WD10	10"	350	1	325	288	362	103.4
SGRD25	CUSTOMER SERVICE	WD10	10"	350	1	333	234	317	90.6
SGRD26	CUSTOMER SERVICE	WD10	10"	350	1	49	226	296	84.6
SGRD27	DRIVE THRU	CD11	12"	500	1	336	289	376	75.2
SGRD28	OFFICE	CD12	8"	125	1	94	83	113	90.4
SGRD29	EMPLOYEE RR	CD14	6"	75	1	104	95	74	98.7

Completed By: Dan Hertenstein on

National TAB

Project: 08-08 CULVERS - ROGERS, AR

System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU2

AREA: KITCHEN

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622F07316
Model Num	NA	LGH180H4BS4Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	13X23
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	Actual
Motor MFG	-	INTERLINK
Frame	-	56HZ
Horsepower	-	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	200-230
Rated Amperage	-	8.0-7.8

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.75"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	6 TURNS OUT
Fan Sheave Size	-	BK72
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20.5"
Num of Belts	-	1
Belt Size	-	BX55
Belt Alignment	-	VERIFIED

Test Data		
	Design	Actual
SF CFM	6000	
SF RPM	-	704
RA CFM	4100	
OA CFM	1900	
RL Voltage	-	211/212/212
RL Amperage	-	6.1/6.2/5.9
SF Rotation	-	CCW
RA Damper Position	-	[1]
Min OA Damper Position	-	[1]
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	[1]
Brake Horse Power	-	

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	-	
Fan Total SP	-	

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

Completed By: Dan Hertenstein

Notes: [1] PRODIGY BOARD IS DEFECTIVE AND NEEDS TO BE REPLACED. UNABLE TO SET ENTHALPY AND OA POSITION. DAMPER POSITION WILL BE MARKED FOR WHEN NEW BOARD COMES IN.

National TAB

Project:08-08 CULVERS - ROGERS, AR

AHU/RTU



Comfort. Under control.

Diffuser Supply (GRD)

RTU2/KITCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	SUNDAE SERVICE	CD20	12"	550					-
SGRD2	SUNDAE SERVICE	CD22	12"	600					-
SGRD3	FRYERS	CD23	8"	200					-
SGRD4	FRYERS	CD24	12"	375					-
SGRD5	FOOD PREP	CD25	12"	400					-
SGRD6	FOOD PREP	CD25	12"	400					-
SGRD7	GRIDDLE	CD26	10"	250					-
SGRD8	GRIDDLE	CD27	10"	275					-
SGRD9	ALCOVE	CD28	6"	100					-
SGRD10	DISHWAS HING	CD21	10"	350					-
SGRD11	DISHWAS HING	CD21	10"	350					-
SGRD12	DISHWAS HING	CD21	12"	350					-
SGRD13	UTILITY	CD29	12"	600					-
SGRD14	DRY GOODS	WD20	12"	600					-
SGRD15	DRY GOODS	WD20	12"	600					-

Completed By: Dan Hertenstein on

National TAB

Project: 08-08 CULVERS - ROGERS, AR
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-1

AREA:MOP ROOM

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRED-090-D	XRED-090-D
Serial Num	-	
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	900	
Phase	1	
Voltage (rated)	115	
Amperage (rated)	-	
Service Factor	-	

Test Data		
	Design	Actual
CFM	75	73
Fan RPM	885	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	SEE PIC
RL Voltage	-	NOT SAFE
RL Amperage	-	0.14
Total ESP	0.125"	UTO
Fan Inlet SP	-	UTO
Fan Discharge SP	-	UTO

Completed By: Dan Hertenstein

Notes:

National TAB

Project: 08-08 CULVERS - ROGERS, AR
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-1

AREA:RESTROOMS

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRED-090-D	XRED-090-V6-1-17-X
Serial Num	-	2012647722F
Type	DOWNBLAST	DOWNBLAST
Configuration	HORIZONTAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	BROAD-OCEAN
Frame	-	NL
Horsepower	0.0667	1/10
Motor Rpm	150	300-1750
Phase	1	1
Voltage (rated)	115	115/208-230
Amperage (rated)	-	1.38/0.84
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	375	
Fan RPM	1479	DD
Fan Rotation	-	CW
Motor RPM	-	DD
System SetPt	-	6 OF 10
RL Voltage	-	NOT SAFE
RL Amperage	-	0.74
Total ESP	0.5"	-0.31"
Fan Inlet SP	-	0.31"
Fan Discharge SP	-	ATM

Completed By: Dan Hertenstein

Notes:

National TAB

Project:08-08 CULVERS - ROGERS, AR

FAN - Exhaust



Comfort. Under control.

Diffuser Ret/Exh (GRD)

PRV-1/RESTROOMS

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	MENS RR	EG2	8"	150	1	118	94		-
EGRD2	WOMENS RR	EG2	8"	150	1	192	161		-
EGRD3	EMPLOYEE RR	EG1	8"	75	1	148	118		-

Completed By: Dan Hertenstein on

National TAB

Project: 08-08 CULVERS - ROGERS, AR
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-2

AREA:HD1 GRIDDLE

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB-161XP-15	XRUB-160XP-15-1-26-6
Serial Num	-	2012661122F
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1500	1487
Fan RPM	2411	2049
Fan Rotation	-	CW
Motor RPM	-	1771
RL Voltage	-	209/211/210
RL Amperage	-	3.2/3.1/2.9
Suction ESP	-	-0.69"
Discharge ESP	-	ATM
Total ESP	2.337"	0.69"

Motor Data		
	Design	Actual
Motor MFG	-	NEMA
Frame	-	56
Horsepower	1.5	1.5
Motor Rpm	1725	1760
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	4.2/2.1
Service Factor	-	1.15

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP44
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	2 TURNS OUT
Fan Sheave Size	-	3"
Fan Sheave Bore	-	1"
Belt CL Distance	-	TENSIONER IN PLACE
Num of Belts	-	1
Belt Size	-	AX24

Completed By: Dan Hertenstein

Notes:

National TAB

Project: 08-08 CULVERS - ROGERS, AR
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-3

AREA:HD2 FRYER

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB-141-7	XRUB-140-7-1-26-G
Serial Num	-	2012676522F
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1500	1522
Fan RPM	1377	980
Fan Rotation	-	CW
Motor RPM	-	1765
RL Voltage	-	212/210/211
RL Amperage	-	1.5/1.5/1.6
Suction ESP	-	UTO
Discharge ESP	-	UTO
Total ESP	1.0"	UTO

Motor Data		
	Design	Actual
Motor MFG	-	NEMA
Frame	-	56
Horsepower	0.75	0.75"
Motor Rpm	1725	1760
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	2.3/1.15
Service Factor	-	1.25

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	5 TURNS OUT
Fan Sheave Size	-	AK41
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	TENSIONER IN PLACE
Num of Belts	-	1
Belt Size	-	AP23

Completed By: Dan Hertenstein

Notes: FAN IS CAUGHT ON CURB AND CANNOT BE LEANED BACK TO TAKE PRESSURE READING.

National TAB

Project: 08-08 CULVERS - ROGERS, AR
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	ACCUREX
Model Num	NA	XRED-095-6-V6-1-17-X
Serial Num	-	2012684622F
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	BROAD-OCEAN
Frame	-	NL
Horsepower	-	1/6
Motor Rpm	-	300-1750
Phase	-	1
Voltage (rated)	-	115/208-230
Amperage (rated)	-	2.2/1.3
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	350	373
Fan RPM	-	DD
Fan Rotation	-	CW
Motor RPM	-	DD
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	-	
Fan Inlet SP	-	
Fan Discharge SP	-	ATM

Completed By: Dan Hertenstein

Notes:

National TAB

Project: 08-08 CULVERS - ROGERS, AR

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD1

AREA:

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XGEP-64-S	XGEP-64.00-S
Job / Serial Num	-	20114420
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	64"	64"
Hood Width	23"	23"

Performance Data		
	Design	Actual
Smoke Generation Type	-	
Hood Capture %	-	
End Panels Installed (Y/N)	-	

Test Data Exhaust		
	Design	Actual
Filter Type	GREASE GRABBER	GREASE GRABBER
Filter Size 1	16X16	16X16
Filter Qty 1	4	4
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	6.12	6.12
Filter1 FPM	-	256
Filter2 FPM	-	237
Filter3 FPM	-	231
Filter4 FPM	-	250
Filter Ave FPM(corr)	-	243
CFM	-	1487

General		
	Design	Actual
Third Party Witness	-	
Third Party Company	-	
Tech Witness	-	

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE

Completed By: Dan Hertenstein

Notes:

National TAB

Project: 08-08 CULVERS - ROGERS, AR

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD2

AREA:FRYER

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XXEP-83-S	XXEP-83.00-S
Job / Serial Num	-	20114419
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	83"	83"
Hood Width	23"	23"

Performance Data		
	Design	Actual
Smoke Generation Type	-	
Hood Capture %	-	

General		
	Design	Actual
Third Party Witness	-	
Third Party Company	-	
Tech Witness	-	

Test Data Exhaust		
	Design	Actual
Filter Type	X-TRACTOR	X-TRACTOR
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	7.65	7.65
Filter1 FPM	-	207
Filter2 FPM	-	201
Filter3 FPM	-	195
Filter4 FPM	-	194
Filter5 FPM	-	201
Filter Ave FPM(corr)	-	199
CFM	-	1522

Cooking Equipment		
	Design	Actual
Item 1	-	FRYERS

Completed By: Dan Hertenstein

Notes:

National TAB

Project: 08-08 CULVERS - ROGERS, AR

System/Unit: Kitchen Hood Type II



Comfort. Under control.

Asset: HD3

AREA:

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	NA	XD3-42.00-S
Serial Num	-	20114421
Type	-	TYPE II CANOPY
Hood length	-	42"
Hood Width	-	42"

Test Data		
	Design	Actual
Exhaust CFM	350	

Completed By: Dan Hertenstein

Notes:

