

Report By:

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

NATIONAL

TAB

Comfort. Under control.

Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 11/11/2022

PROJECT
11-07 CULVERS - SPARTA, WI

1025 2ND AVE SW

ONALASKA, WI

Client

Accurex

PO Box 410

Schofield, WI 54476

National TAB

Project: 11-07 CULVERS - SPARTA, WI

Table Of Contents

Section	Page #
Summary	3
Issues	4
Balance Schedule	12
Site Photos	13
Checklist Data	17
AHU/RTU	19
FAN - Exhaust	21
Kitchen Hood Type I	26
Kitchen Hood Type II	28

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.



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

Project Issue Information

Issue Name : 1. Exhaust fan above walk-in.

Description : Exhaust fan is installed and operating, exhausting from above walk-in cooler to rear of building. Unsure of purpose. If not necessary, recommend disabling to reduce negative airflow.

Created By : National TAB

Assigned To : National TAB - Michael McDonnell

Status : Open

Originated Date : 11/10/2022 - Michael McDonnell - National TAB

Project Issue File Details



FuseIT7c42037886494ac...



FuseITa7a2a5be003948e...



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

Project Issue Information

Issue Name : 2. PRV-1 (RR) not operational.

Description : PRV-1 was not operating on arrival. Fan has power on the roof but was not rotating and motor was hot to the touch. Motor likely needs replacement. Turned off at the roof disconnect.

Created By : National TAB

Assigned To : National TAB - Michael McDonnell

Status : Open

Originated Date : 11/10/2022 - Michael McDonnell - National TAB

Project Issue File Details



FuseITf35311fa3fc1469...



FuseITd6f4bbcc4985441...



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

Project Issue Information

Issue Name : 3. PRV-3 (fryer) needs belt replacement.

Description : Belt is cracked and worn, recommend replacement. Belt size installed is AP23.

Created By : National TAB

Assigned To : National TAB - Michael McDonnell

Status : Open

Originated Date : 11/10/2022 - Michael McDonnell - National TAB

Project Issue File Details



FuselT5a2e68748c5f4da...



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

Project Issue Information

Issue Name : 4. RTU-2 (kitchen) final filters dirty.

Description : Throwaway filters are dirty, recommend replacement with pleated filters.

Created By : National TAB

Assigned To : National TAB - Michael McDonnell

Status : Open

Originated Date : 11/10/2022 - Michael McDonnell - National TAB

Project Issue File Details



d5369c8b_b8b0_4b97_85...



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

Project Issue Information

Issue Name : RESOLVED: PRV-2 (griddle) and PRV-3 (fryer) rotation incorrect.
Description : On arrival to store both hood exhaust fans were rotating the incorrect direction.
Created By : National TAB **Assigned To :** National TAB - Michael McDonnell
Status : Closed
Originated Date : 11/10/2022 - Michael McDonnell - National TAB

Project Issue File Details

1. [Open](#) IMG9632.MOV

Project Issue Response Details

- **11/10/2022** **National TAB - Michael McDonnell**
 - Rotation corrected. No further action necessary.



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

Project Issue Information

Issue Name : RESOLVED: PRV-2 and PRV-3 wired to incorrect contactors.

Description : PRV-2 is wired to the incorrect contactor with lower amperage rating and causing the fan to trip above 4amps. Motor is rated for 5.9 amps. PRV-3, with lower motor amperage rating, is wired to the higher rated contactor (8amps). Recommend swapping contactors so PRV-2 can be set to design airflow.

Created By : National TAB

Assigned To : National TAB - Michael McDonnell

Status : Closed

Originated Date : 11/10/2022 - Michael McDonnell - National TAB

Project Issue File Details



FuseIT8073b5a7f8ed453...

Project Issue Response Details

- **11/11/2022 National TAB - Michael McDonnell**
 - E.C. swapped contactors and fan was sped to design airflow. No further action necessary.

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			5922	0	3941		1981	#DIV/0!	33.5%						
RTU-2			7102	0	5080		2022	#DIV/0!	28.5%						
EF-1															58
PRV1															0
PRV2												1500	1487		
PRV3												1500	1568		
PRV4													487		
TOTALS		0	13024	0	9021	0	4003			0	0	3000	3542	0	58

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	0	4003
TOTAL EXHAUST	3000	3600
NET AIRFLOW	-3000	403

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.005
SIDE	0.005
REAR	-0.006
AVERAGE	0.001

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:

[1] Building pressure was measured on windy day. Rear door measured negative even with building in positive net airflow state. Suspect building is not well sealed.



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

CheckList Information

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

CheckList Item Details

Culvers- Sparta, WI



SpartaWI.jpeg

RTU-1 (Dining)



RTU1.jpeg



1.jpeg

RTU-2 (Kitchen)



RTU2.jpeg



2.jpeg

PRV-1 (Restroom)



P1.jpeg



PRV1.jpeg

HOOD-1 (Griddle)

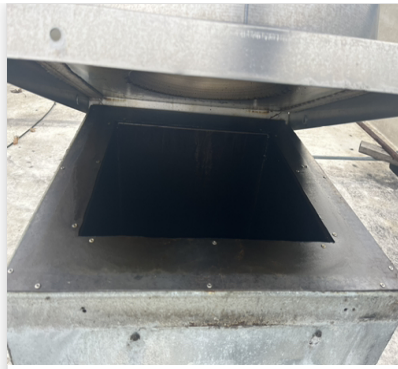


HD1.jpeg

PRV-2 (Griddle)



P2.jpeg



PRV2.jpeg

HOOD-2 (Fryer)

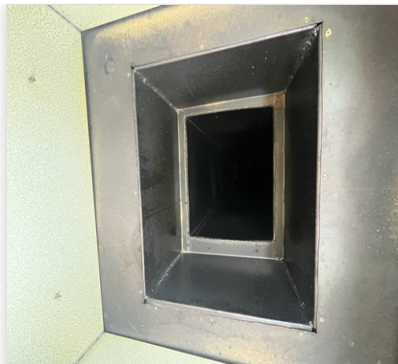


HD2.jpeg

PRV-3 (Fryer)



P3.jpeg



PRV3.jpeg

HOOD-3 (Dish)



HD3.jpeg

PRV-4 (Dish)



PRv4.jpeg



P4.jpeg

Notes/Comments :



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

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
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.

11-07 CULVERS - SPARTA, WI

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?	Yes
DCV Max damper opening position is set to minimum?	Yes
Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes
Motors are all operating below the FLA rating?	Yes
Are belts tight?	Yes
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?	Rotation for both hood fans (PRV-2, PRV-3) was incorrect on arrival. Rotation corrected.
Belts are tight?	Yes
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

HOODS

Kitchen equipment installed in proper places?	Yes
Can kitchen equipment be turned on for final smoke test?	Yes

DOCUMENTATION

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

Notes/Comments :



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

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
Is space comfortable in all areas?	Back storage area noticeably cooler than rest of kitchen.
Is the space free of ventilation noise?	Yes
If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".	5 sidewall grilles are serving the back storage area. We fully dampened shut 2 grilles to reduce airflow to this area and push more air to the kitchen. With limited diffusers along the cookline, we did not want to push too much air to the cookline diffusers and risk impacting hood performance while still maintaining the total supply airflow of the unit.

Notes/Comments :



Comfort. Under control.

11-07 CULVERS - SPARTA, WI

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	Fryer, Griddle
List smoke candle type used	45 second smoke emitter
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%

WITNESS

Date test was completed	11/11/2022
TAB tech name / Firm	Michael McDonnell / National TAB
Site super name / Firm	NA
Owner representative name / Firm (if Applicable)	Adam Hayden
Building pressure at front & back doors (All Systems On)	Front: 0.005" Side: 0.005" Rear: -0.006"

ADDITIONAL

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	Rear door measured as slightly negative despite positive net airflow. Suspect building is not well sealed.
Thermostats are programmed?	Yes.

Notes/Comments :

National TAB

Project: 11-07 CULVERS - SPARTA, WI
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU1

AREA: DINING

Unit Data		
	Design	Actual
MFG	NA	LENNOX
Serial Num	-	5604K00805
Model Num	NA	LGC180S2BS2Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	23X13.25
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	Actual
Motor MFG	-	EMERSON
Frame	-	NL
Horsepower	NA	3.0
Motor Rpm	NA	1725
Phase	NA	3
Rated Voltage	NA	200-230
Rated Amperage	-	9.0-9.2

Drive Data		
	Design	Actual
Motor Sheave Size	-	4.75"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	SHEAVE FROZEN, ESTIMATED 3 TURNS OPEN
Fan Sheave Size	-	10"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	21.25"
Num of Belts	-	1
Belt Size	-	BX62
Belt Alignment	-	VERIFIED

Test Data		
	Design	Actual
SF CFM	NA	5922
SF RPM	NA	767
RA CFM	NA	3941
OA CFM	NA	1981
RL Voltage	-	209/210/210
RL Amperage	-	7.5/7.6/7.2
SF Rotation	-	CORRECT
RA Damper Position	-	7"
Min OA Damper Position	-	3"
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	D

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.29"
Fan Suction SP	-	-0.51"
Fan Discharge SP	-	0.38"
Total ESP	NA	0.67"
Fan Total SP	NA	0.89"

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

Completed By: Michael McDonnell

Notes:[1] MOTOR SHEAVE FROZEN. ADJUSTMENT WAS NOT NECESSARY.

National TAB

Project: 11-07 CULVERS - SPARTA, WI
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU2

AREA: KITCHEN

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	3522P28979
Model Num	48TCFD24A3A5	48TCFD24A3A5
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	14.5X23.25
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	CENTURY
Frame	-	S213T
Horsepower	-	7.50
Motor Rpm	-	1760
Phase	-	3
Rated Voltage	-	230
Rated Amperage	-	19.4

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP65
Motor Bore Size	-	1-3/16"
Motor Sheave SetPt	-	5 TURNS OPEN
Fan Sheave Size	-	BX95H
Fan Sheave Bore	-	1-3/8"
Belt CL Distance	-	11.5"
Num of Belts	-	1
Belt Size	-	BX44
Belt Alignment	-	VERIFIED

Test Data		
	Design	Actual
SF CFM	-	7102
SF RPM	-	1010
RA CFM	-	5080
OA CFM	-	2022
RL Voltage	-	209/210/210
RL Amperage	-	18.9/19.2/19.0
SF Rotation	-	CORRECT
Min OA Damper Position	-	6.35V (52%)
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	E

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.63"
Fan Suction SP	-	-1.03"
Fan Discharge SP	-	0.55"
Total ESP	-	1.18"
Fan Total SP	-	1.58"

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	VERY DIRTY, NEED REPLACEMENT
Condensate Drain Installed	-	YES

Completed By: Michael McDonnell

Notes:[1] BACK STORAGE AREA HAD NOTICEABLY DIFFERENT SPACE TEMPERATURE. FULLY CLOSED 2 GRILLES IN STORAGE AREA TO PUSH MORE AIR INTO KITCHEN SPACE WHILE BEING CAREFUL TO NOT DISRUPT HOOD CAPTURE AND MAINTAIN TOTAL UNIT SUPPLY AIRFLOW.

National TAB

Project: 11-07 CULVERS - SPARTA, WI
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF1

AREA:MOP ROOM

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B50
Serial Num	-	04J14934
Type	NA	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Frame	-	NLL
Horsepower	NA	NL
Motor Rpm	NA	625
Phase	NA	1
Voltage (rated)	NA	115
Amperage (rated)	-	0.5
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	NA	58
Fan RPM	NA	DD
Fan Rotation	-	CW
Motor RPM	-	DD
System SetPt	-	SINGLE SPEED
RL Voltage	-	119
RL Amperage	-	0.42
Total ESP	NA	0.006"
Fan Inlet SP	-	ATM
Fan Discharge SP	-	0.006"

Completed By: Michael McDonnell

Notes:

National TAB

Project: 11-07 CULVERS - SPARTA, WI

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV1

AREA:RESTROOM

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-095-D-X
Serial Num	-	04J15949
Type	NA	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	CENTURY
Frame	-	NL
Horsepower	NA	NL
Motor Rpm	NA	1625
Phase	NA	1
Voltage (rated)	NA	115
Amperage (rated)	-	1.9
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	NA	0
Fan RPM	NA	0
Fan Rotation	-	[1]
Motor RPM	-	[1]
System SetPt	-	[1]
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	NA	[1]
Fan Inlet SP	-	[1]
Fan Discharge SP	-	ATM

Completed By: Michael McDonnell

Notes:[1] FAN IS NOT OPERATIONAL. FAN HAD POWER BUT MOTOR WAS VERY HOT AND NOT ROTATING. MOTOR NEEDS REPLACEMENT. LEFT OFF AT ROOF DISCONNECT.

National TAB

Project: 11-07 CULVERS - SPARTA, WI
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV2

AREA: KITCHEN HOOD

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB160XP-20	XRUB-160XP-20-1-22-G
Serial Num	-	19457842 21L
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1500	1487
Fan RPM	2392	2266
Fan Rotation	-	CW, CORRECT
Motor RPM	-	1785
RL Voltage	-	209/210/209
RL Amperage	-	4.2/4.5/4.6
Suction ESP	-	-1.03"
Discharge ESP	-	ATM
Total ESP	2.3"	1.03"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR RELIANCE
Frame	-	56H
Horsepower	1.29	2.0
Motor Rpm	1725	1750
Phase	3	3
Voltage (rated)	208	208-230
Amperage (rated)	-	5.9-6.0
Service Factor	-	1.15

Drive Data		
	Design	Actual
Motor Sheave Size	-	4.75"
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	2 TURNS OPEN
Fan Sheave Size	-	AK34
Fan Sheave Bore	-	1"
Belt CL Distance	-	6"
Num of Belts	-	1
Belt Size	-	AX26

Completed By: Michael McDonnell

Notes:

National TAB

Project: 11-07 CULVERS - SPARTA, WI
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV3

AREA: KITCHEN HOOD

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB141-10	XRUB-140-7-1-26-G
Serial Num	-	19457863 21L
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1500	1568
Fan RPM	1365	1153
Fan Rotation	-	CW
Motor RPM	-	1780
RL Voltage	-	208/209/209
RL Amperage	-	1.7/1.7/1.8
Suction ESP	-	-0.54"
Discharge ESP	-	ATM
Total ESP	1.00"	0.54"

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	56
Horsepower	0.5	0.75
Motor Rpm	1725	1760
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	2.3
Service Factor	-	1.25

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34S
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	4 TURNS OPEN
Fan Sheave Size	-	4"
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	6"
Num of Belts	-	1
Belt Size	-	AP23

Completed By: Michael McDonnell

Notes:

National TAB

Project: 11-07 CULVERS - SPARTA, WI
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV4

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-131-B-X
Serial Num	-	04J15968
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	48
Horsepower	-	1/6
Motor Rpm	-	1140
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.7
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	-	487
Fan RPM	-	DD
Fan Rotation	-	CW
Motor RPM	-	DD
System SetPt	-	SINGLE SPEED
RL Voltage	-	NR
RL Amperage	-	NR
Total ESP	-	0.53"
Fan Inlet SP	-	-0.53"
Fan Discharge SP	-	ATM

Completed By: Michael McDonnell

Notes:

National TAB

Project: 11-07 CULVERS - SPARTA, WI

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD1

AREA:

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XGEP64-S	XGEP-64.00-S
Job / Serial Num	-	19458043
Type	TYPE I	TYPE I
Hood length	64	64"
Hood Width	23	23"

Test Data Exhaust		
	Design	Actual
Filter Type	GREASE GRABBER	GREASE GRABBER
Filter Size 1	16X6	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	-	240
Filter2 FPM	-	234
Filter3 FPM	-	245
Filter4 FPM	-	254
Filter Ave FPM(corr)	-	243
CFM	1500	1487

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE

Completed By: Michael McDonnell

Notes:

National TAB

Project: 11-07 CULVERS - SPARTA, WI

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD2

AREA:

Unit Data

	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XXEP83-S	XXEP-83.00-S
Job / Serial Num	-	19458017
Type	TYPE I	TYPE I
Hood length	83	83"
Hood Width	23	23"

Test Data Exhaust

	Design	Actual
Filter Type	XTRACTOR	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	-	230
Filter2 FPM	-	215
Filter3 FPM	-	193
Filter4 FPM	-	184
Filter5 FPM	-	204
Filter Ave FPM(corr)	-	205
CFM	1500	1568

Cooking Equipment

	Design	Actual
Item 1	-	FRYER

Completed By: Michael McDonnell

Notes:

National TAB

Project: 11-07 CULVERS - SPARTA, WI

System/Unit: Kitchen Hood Type II



Comfort. Under control.

Asset: HD3

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	GD3-3.50-S
Serial Num	-	04J12192
Type	-	TYPE II
Hood length	-	42"
Hood Width	-	42"

Test Data		
	Design	Actual
Exhaust CFM	-	487

Completed By: Michael McDonnell

Notes: