Comfort. Under control.

05-30 CULVERS - HAMMOND, IN

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
All hood filters installed and accounted for?	YES
Hoods are wired and have power?	YES
Thermostats have power?	YES
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

Notes/Comments :

Comfort. Under control.

05-30 CULVERS - HAMMOND, IN

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
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.)	YES
Motors are all operating below the FLA rating?	yes
Are belts tight?	YES
If direct drive unit is the speed controller working.	N/A
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?	yes
Grease cup installed on hood fan?	YES
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

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
The hood exhaust fans are installed in correct positions and are not switched?	YES
HOODS	
Kitchen equipment installed in proper places?	YES
Can kitchen equipment be turned on for final smoke test?	YES
Second stage Grease Grabber filters are installed on the griddle hood?	YES
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

Notes/Comments :

Comfort. Under control.

05-30 CULVERS - HAMMOND, IN

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?	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.

05-30 CULVERS - HAMMOND, IN

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	flat top grill and fryers
List smoke candle type used	s102
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%
WITNESS	
Date test was completed	06/01/2022
TAB tech name / Firm	Zackary Eismin / National Tab
Site super name / Firm	N/A
Owner representative name / Firm (if Applicable)	brendon / culvers
Building pressure at front & back doors (All Systems On)	0.0035"
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
PRODIGY SETTINGS FOR RTU'S	
Parameter 65 set to 0	Yes

Parameter 78 set to 0	yes
Parameter 105 set to 6	yes
Parameter 156 set to 70 (Dining unit only)	yes
Parameter 156 set to 65 (Kitchen Unit Only)	yes
Parameter 170 set to 75 (Dining Unit Only)	yes
Parameter 170 set to 70 (Kitchen Unit Only)	yes
Parameter 131 set to the same % as OA minimum position?	yes
Parameter 117 set to the same % as OA minimum position?	yes

Notes/Comments :

Comfort. Under control.

05-30 CULVERS - HAMMOND, IN

CheckList Information

Name :	TECH - STEP 5: FINAL DOCUMENTATION	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL DOCUMENTATION

Marked Data capture complete for all assets?	yes
Picture file sent to processing team or uploaded?	yes
Balance schedule complete and uploaded?	yes
Prelim report generated and reviewed?	yes

Notes/Comments :

Preface

The summary below provides a quick understanding of how well your HVAC systems balanced in respect to the design criteria. The summary concludes with a quick understanding of your building environment and possible suggestions for each of your systems after testing has been performed. 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. Our focus is 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. Also, enclosed are pictures of building assets and items listed below that will provide your team with more insight

Facility Identification and TAB Requirements

The mechanical equipment to be tested, adjusted, and balanced includes: All Roof Top Units (RTU), All Exhaust Fans (EF), All Kitchen Hoods, and all associated air devices.

RTU's

Each of the RTU's were measured at their terminal devices utilizing a flow hood. The sum of these readings is equal to the total flow for that particular unit. The total flow of each RTU was then adjusted to +/-10% of the specified design. Each terminal diffuser was balanced to within +/-10% of the engineer's design volume utilizing the provided hand damper located at the takeoff of the main & branch trunk line(s). Any equipment that fell outside of this 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 +/-10% of the engineers 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 +/-10% of design. Each terminal device was balanced to within +/-10% 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

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622D03852
Model Num	LGH180H4B	LGH180H4B
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	23X14
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	Interlink
Frame	-	56HZ
Horsepower	-	3
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	200-230
Rated Amperage	-	10.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VL40
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3 turns open
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	6150	6442
SF RPM	-	856
RA CFM	4050	4337
OA CFM	1950	2105
RL Voltage	-	211/212/212
RL Amperage	-	9.0/8.7/8.5
SF Rotation	-	ccw
RA Damper Position	-	50%
Min OA Damper Position	-	50%
Min OA Damper Type	-	motorized
OA Enthalpy Setpt	-	
Brake Horse Power	-	

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.59"
Fan Suction SP	-	-0.84
Fan Discharge SP	-	0.26"
Total ESP	-	0.85"
Fan Total SP	-	1.1"

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

Completed By: Zack Eismin

Notes:DIFFUSER DESIGN TOTALS = 5925CFM. UNIT SCHEDULED AT 6000CFM.

National TAB

Project:05-30 CULVERS - HAMMOND, IN

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU1/DINING

Asset							
SGRD1	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	VESTIBULE	CD13	8"	150	1	133	
	FINAL CFM	**% to design**					
	164	109.3					
SGRD2	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	RESTROOM	CD15	8"	150	1	195	
	FINAL CFM	**% to design**					
	153	102.0					
SGRD3	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	RESTROOM	CD15	8"	150	1	159	
	FINAL CFM	**% to design**					
	162	108.0					
SGRD4	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	HALL	CD16	12"	450	1	455	
	FINAL CFM	**% to design**					
	487	108.2					
SGRD5	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	206	
	FINAL CFM	**% to design**					
	153	102.0					
SGRD6	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	215	
	FINAL CFM	**% to design**					
	163	108.7					
SGRD7	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	167	
	FINAL CFM	**% to design**					
	158	105.3					
SGRD8	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	189	
	FINAL CFM	**% to design**					
	161	107.3					
SGRD9	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	139	
	FINAL CFM	**% to design**					
	161	107.3					
SGRD10	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	187	
	FINAL CFM	**% to design**					
	159	106.0					
SGRD11	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	179	
	FINAL CFM	**% to design**					

	152	101.3					
SGRD12	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	175	
	FINAL CFM	**% to design**					
	164	109.3					
SGRD13	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	188	
	FINAL CFM	**% to design**					
	158	105.3					
SGRD14	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	216	
	FINAL CFM	**% to design**					
	163	108.7					
SGRD15	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	239	
	FINAL CFM	**% to design**					
	160	106.7					
SGRD16	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	209	
	FINAL CFM	**% to design**					
	162	108.0					
SGRD17	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DINING	CD10	8"	150	1	223	
	FINAL CFM	**% to design**					
	154	102.7					
SGRD18	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DRINKS & CONDIMENTS	CD18	10"	300	1	292	
	FINAL CFM	**% to design**					
	326	108.7					
SGRD19	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	SIDE NTRY	CD10	8"	150	1	174	
	FINAL CFM	**% to design**					
	150	100.0					
SGRD20	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	CUSTOMER ORDER AREA	CD16	12"	450	1	432	
	FINAL CFM	**% to design**					
	459	102.0					
SGRD21	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	CUSTOMER SERVICE	WD10	10"	350	1	243	
	FINAL CFM	**% to design**					
	362	103.4					
SGRD22	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	CUSTOMER SERVICE	WD10	10"	350	1	274	
	FINAL CFM	**% to design**					
	352	100.6					
SGRD23	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	CUSTOMER SERVICE	WD10	10"	350	1	302	
	FINAL CFM	**% to design**					
	360	102.9					
SGRD24	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	CUSTOMER SERVICE	WD10	10"	350	1	264	
	FINAL CFM	**% to design**					
	320	91.4					
SGRD25	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**

	DRIVE THRU	CD11	10"	500	1	424	
	FINAL CFM	**% to design**					
	527	105.4					
	Location	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
SGRD26	OFFICE	CD12	8"	200	1	156	
	FINAL CFM	**% to design**					
	182	91.0					
	Location	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
SGRD27	EMPLOYEE RESTROOM	CD14	8"	75	1	232	
	FINAL CFM	**% to design**					
	81	108.0					
	Location	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
SGRD28	DINING	CD10	8"	150	1	223	
	FINAL CFM	**% to design**					
	149	99.3					
	Location	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
SGRD29	DINING	CD10	8"	150	1	170	
	FINAL CFM	**% to design**					
	140	93.3					

Completed By:Brianna Biggs on

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622D03848
Model Num	LGH180H4B	LGH180H4B
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	23X14
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	interlink
Frame	-	56HZ
Horsepower	-	3
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	200-230
Rated Amperage	-	10.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VL40
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	5 turns open
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	6150	6225
SF RPM	-	806
RA CFM	4100	4120
OA CFM	1900	2105
RL Voltage	-	211/211/211
RL Amperage	-	8.9/8.9/8.7
SF Rotation	-	ccw
RA Damper Position	-	50%
Min OA Damper Position	-	50%
Min OA Damper Type	-	motorized
OA Enthalpy Setpt	-	
Brake Horse Power	-	

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.6"
Fan Suction SP	-	-0.81"
Fan Discharge SP	-	0.37"
Total ESP	-	0.97"
Fan Total SP	-	1.41"

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

Completed By: Zack Eismin

Notes:DIFFUSER DESIGN TOTALS = 6075CFM. UNIT SCHEDULED AT 6000CFM.

National TAB

Project:05-30 CULVERS - HAMMOND, IN

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU2/KITCHEN

Asset							
SGRD1	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	SUNDAE SERVCE	CD20	12"	600	1	501	459
	FINAL CFM	**% to design**					
	578	96.3					
SGRD2	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	SUNDAE SERVICE	CD22	12"	600	1	450	413
	FINAL CFM	**% to design**					
	574	95.7					
SGRD3	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	COOKLINE	CD23	10"	200	1	386	360
	FINAL CFM	**% to design**					
	256	128.0					
SGRD4	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	COOKLINE	CD24	12"	375	1	724	663
	FINAL CFM	**% to design**					
	383	102.1					
SGRD5	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	FOOD PREP	CD25	12"	400	1	699	664
	FINAL CFM	**% to design**					
	438	109.5					
SGRD6	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	FOOD PREP	CD25	12"	400	1	510	512
	FINAL CFM	**% to design**					
	383	95.8					
SGRD7	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	COOKLINE	CD26	10"	250	1	390	378
	FINAL CFM	**% to design**					
	272	108.8					
SGRD8	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	COOKLINE	CD27	10"	275	1	392	360
	FINAL CFM	**% to design**					
	302	109.8					
SGRD9	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	ALCOVE	CD28	8"	125	1	200	167
	FINAL CFM	**% to design**					
	134	107.2					
SGRD10	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DISHWASHING	CD21	12"	350	1	577	506
	FINAL CFM	**% to design**					
	382	109.1					
SGRD11	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DISHWASHING	CD21	12"	350	1	391	360
	FINAL CFM	**% to design**					

	384	109.7					
SGRD12	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	FOOD PREP	CD21	12"	350	1	620	600
	FINAL CFM	**% to design**					
	376	107.4					
SGRD13	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	UTILITY	CD29	12"	600	1	353	362
	FINAL CFM	**% to design**					
	583	97.2					
SGRD14	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DRY GOODS	WD20	12"	600	1	529	499
	FINAL CFM	**% to design**					
	609	101.5					
SGRD15	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	DRY GOODS	WD20	12"	600	1	601	349
	FINAL CFM	**% to design**					
	571	95.2					

Completed By:Brianna Biggs on

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF-1 AREA:MOP ROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B80	XCR-B80
Serial Num	-	315039
Type	CEILING	ceiling
Configuration	VERTICAL	vertical

Motor Data		
	Design	**Actual**
Motor MFG	-	greenheck
Frame	-	NL
Horsepower	-	NL
Motor Rpm	900	900
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.16
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	68
Fan RPM	885	885
Fan Rotation	-	cw
Motor RPM	-	885
System SetPt	-	10
RL Voltage	-	NA
RL Amperage	-	0.15
Total ESP	0.125"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	atm

Completed By: Zack Eismin

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV1 AREA:RESTROOMS

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-095-D	XRED-090-vg
Serial Num	-	19522652
Type	DOWNBLAST	DOWNBLAST
Configuration	HORIZONTAL	horizontal

Motor Data		
	Design	**Actual**
Motor MFG	-	greenheck
Frame	-	NL
Horsepower	0.0667	1/8
Motor Rpm	1550	1085
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	NA
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	375	372
Fan RPM	1479	1085
Fan Rotation	-	cw
Motor RPM	-	1085
System SetPt	-	10
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.5"	0.25"
Fan Inlet SP	-	0.25"
Fan Discharge SP	-	ATM

Completed By: Zack Eismin

Notes:

National TAB

Project:05-30 CULVERS - HAMMOND, IN

FAN - Exhaust

Comfort. Under control.

Diffuser Ret/Exh (GRD)

PRV1/RESTROOMS

Asset							
EGRD1	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	RESTROOM	EG2	8"	150	1	132	
	FINAL CFM	**% to design**					
	155	103.3					
EGRD2	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	RESTROOM	EG2	8"	150	1	120	
	FINAL CFM	**% to design**					
	146	97.3					
EGRD3	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**
	EMPLOYEE RESTR OOM	EG1	8"	75	1	72	
	FINAL CFM	**% to design**					
	81	108.0					

Completed By:Brianna Biggs on

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV2 AREA:HD 1 GRILL

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB - 160XP-15	XRUB - 160XP-15
Serial Num	-	19522653
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	weg
Frame	-	56HZ
Horsepower	1.5	0.75
Motor Rpm	1725	1725
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	4.2
Service Factor	-	1.15

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	vp44
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	2 turns open
Fan Sheave Size	-	1"
Fan Sheave Bore	-	1"
Belt CL Distance	-	6"
Num of Belts	-	1
Belt Size	-	AX24

Test Data		
	Design	**Actual**
CFM	1500	1637
Fan RPM	2411	NA
Fan Rotation	-	cw
Motor RPM	-	NA
RL Voltage	-	212/212/212
RL Amperage	-	1.5/1.6/1.7
Suction ESP	-	-0.64"
Discharge ESP	-	ATM
Total ESP	2.337"	-0.64"

Completed By: Zack Eismin

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV3 AREA:HD2 FRYER

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-140-7	XRUB-140-7
Serial Num	-	19522655
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	weg
Frame	-	56HZ
Horsepower	1.5	1.5
Motor Rpm	1725	1725
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	2.30/1.15
Service Factor	-	1.15

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP34
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	3 turns open
Fan Sheave Size	-	ak41
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	6"
Num of Belts	-	1
Belt Size	-	AP23

Test Data		
	Design	**Actual**
CFM	1500	1622
Fan RPM	2411	NA
Fan Rotation	-	cw
Motor RPM	-	NA
RL Voltage	-	214/214/214
RL Amperage	-	3.3/3.3/3.5
Suction ESP	-	0.78"
Discharge ESP	-	ATM
Total ESP	2.337"	0.78"

Completed By: Zack Eismin

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV4 AREA:HD3 DISH

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-095-D	XRED-095-6
Serial Num	-	19522652
Type	DOWNBBLAST	Down blast
Configuration	HORIZONTAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	greenheck
Frame	-	NL
Horsepower	0.0667	1/8
Motor Rpm	1550	1550
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.6
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	350	402
Fan RPM	1455	1455
Fan Rotation	-	cw
Motor RPM	-	1455
System SetPt	-	10
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.5"	0.54"
Fan Inlet SP	-	0.54"
Fan Discharge SP	-	ATM

Completed By: Zack Eismin

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD1 AREA:GRILL

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XGEP-64-S	XGEP-64-S
Job / Serial Num	-	
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	83"	64"
Hood Width	23"	23"

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	-	249
Filter2 FPM	-	276
Filter3 FPM	-	234
Filter4 FPM	-	260
Filter5 FPM	-	251
Filter6 FPM	-	270
Filter7 FPM	-	292
Filter8 FPM	-	288
Filter Ave FPM(corr)	-	265
CFM	-	1622

Cooking Equipment		
	Design	**Actual**
Item 1	-	flat top grill
Item 2	-	

Performance Data		
	Design	**Actual**
Smoke Generation Type	-	s102
Hood Capture %	-	100%
End Panels Installed (Y/N)	-	yes

General		
	Design	**Actual**
Third Party Witness	-	brendon
Third Party Company	-	culvers
Tech Witness	-	Zackary

Completed By: Zack Eismin

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

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-S
Job / Serial Num	-	19491504
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	83"	83"
Hood Width	23"	23"

Test Data Exhaust		
	Design	**Actual**
Filter Type	XTRACTOR	XTRACTOR
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	-	204
Filter2 FPM	-	216
Filter3 FPM	-	188
Filter4 FPM	-	207
Filter5 FPM	-	210
Filter6 FPM	-	208
Filter7 FPM	-	212
Filter8 FPM	-	217
Filter9 FPM	-	238
Filter10 FPM	-	242
Filter Ave FPM(corr)	-	214
CFM	-	1637

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

Performance Data		
	Design	**Actual**
Smoke Generation Type	-	s102
Hood Capture %	-	100%
End Panels Installed (Y/N)	-	yes

General		
	Design	**Actual**
Third Party Witness	-	brendon
Third Party Company	-	culvers
Tech Witness	-	Zackary

Completed By: Zack Eismin

Notes:

Asset	Notes

National TAB

Project: 05-30 CULVERS - HAMMOND, IN

System/Unit: Kitchen Hood Type II

Comfort. Under control.

Asset: HD(Type2)3 AREA:DISH

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XD3-42-S	XD3-42-S
Serial Num	-	19491506
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42"	42"

Test Data		
	Design	**Actual**
Exhaust CFM	350	372

Completed By: Zack Eismin

Notes:

Asset	Notes