

**Report By:**

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**NATIONAL**

**TAB**

Comfort. Under control.

**Report: TAB Report**  
**Function: Test, Adjust, & Balance**  
**Date: 6/9/2022**

**PROJECT**  
**05-30 CULVERS - WILDWOOD, FL**

5327 SUNDANCE TRAIL

WILDWOOD, FL

**Client**

Accurex

400 Ross Ave

Schofield, WI 54476



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

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## 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.



### 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	5200	5243	4300	4376	900	867	17.3%	16.5%						
RTU-2	KITCHEN	5000	4741	4050	3800	950	941	19.0%	19.8%						
RTU-OA	RTUs	3250	3279	1250	1259	2000	2020	61.5%	61.6%						
PRV-2	HOOD 2											1500	1395		
PRV-3	HOOD 1											1500	1545		
PRV-4	HOOD 3											350	319		
EF-1	MEN RR													220	208
EF-2	MOP ROOM													50	48
EF-3 (3)	WOMENS RR													210	206
<b>TOTALS</b>		13450	13263	9600	9435	3850	3828			0	0	3350	3259	480	462

#### NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3850	3828
TOTAL EXHAUST	3830	3721
<b>NET AIRFLOW</b>	<b>20</b>	<b>107</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.0025
SIDE	0.0025
REAR	0.002
<b>AVERAGE</b>	<b>0.0023</b>

#### FINAL CHECKS

- ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✔

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- MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✔

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- PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✔

NOTES:





## STOREFRONT



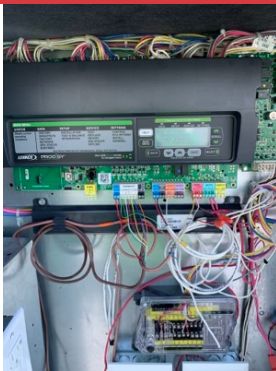
## RTU 1



## RTU 2



## RTU OA



## PRODIGY WIRING

Typical of 3 RTUs





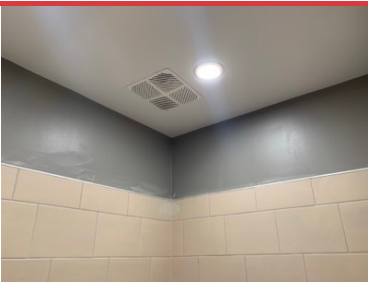
**PRV 2**



**PRV 3**



**PRV 4**

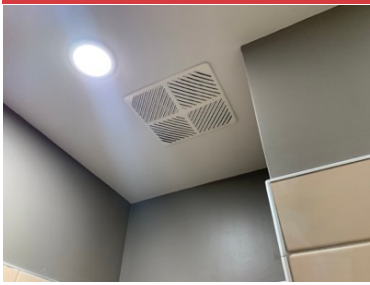


**EF 1**

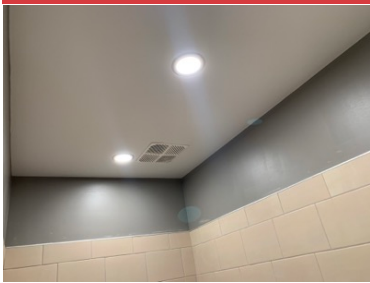


**EF 2**

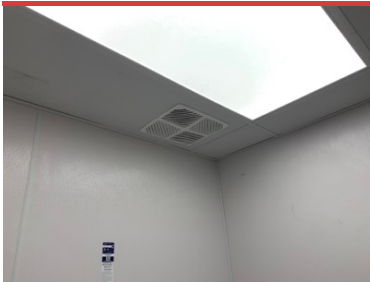




**EF 3A**



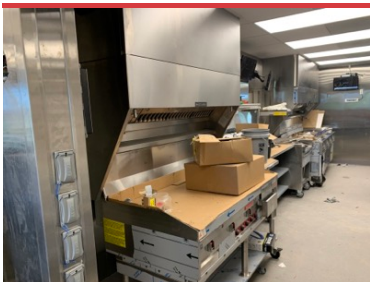
**EF 3B**



**EF 3C**



**HOOD 1**



**HOOD 2**





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### 05-30 CULVERS - WILDWOOD, FL

#### 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 :**





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### 05-30 CULVERS - WILDWOOD, FL

#### 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, BELT DRIVEN
Is gas piping installed and valves turned on?	No
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?	No
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?	No
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
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**Notes/Comments :**

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### 05-30 CULVERS - WILDWOOD, FL

#### 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 :**





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### 05-30 CULVERS - WILDWOOD, FL

#### 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	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	06/02/2022
TAB tech name / Firm	STEPHEN TASSINARO / NTAB
Site super name / Firm	TEST RECORDED
Owner representative name / Firm (if Applicable)	N/A
Building pressure at front & back doors (All Systems On)	0.0023" AVG

##### 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
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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 :**

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Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: AHU/RTU



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Asset: RTU1

AREA:DINING

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622C01944
Model Num	LCH-156-H4B	LCH156H4BE5Y
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23.25X14
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	56HZ
Horsepower	-	2.0
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208/230	200-230
Rated Amperage	-	6.0-5.7

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.75"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3.0 TURNS OUT
Fan Sheave Size	-	BK95
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 5/8"
Num of Belts	-	1
Belt Size	-	BX59
Belt Alignment	-	GOOD

Test Data		
	Design	Actual
SF CFM	5200	5243
SF RPM	-	646
RA CFM	4300	4376
OA CFM	900	867
RL Voltage	-	209/210/212
RL Amperage	-	4.9/4.8/5.3
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	47%
Min OA Damper Type	-	ECONOMIZER
Brake Horse Power	-	1.75

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.26"
Fan Suction SP	-	-0.49"
Fan Discharge SP	-	0.26"
Total ESP	-	0.52"
Fan Total SP	-	0.75"

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

Completed By: Stephen Tassinaro

Notes:



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Project:05-30 CULVERS - WILDWOOD, FL

## AHU/RTU



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### Diffuser Supply (GRD)

#### RTU1/DINING

Asset	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
SGRD1	ENTRY	A4	6"	100	1	132	90
	<b>FINAL CFM</b>	<b>% to design</b>					
	90	90.0					
SGRD2	MENS RR	C3	6"	75	1	146	73
	<b>FINAL CFM</b>	<b>% to design</b>					
	73	97.3					
SGRD3	WOMENS RR	C3	6"	75	1	142	78
	<b>FINAL CFM</b>	<b>% to design</b>					
	78	104.0					
SGRD4	HALL	A4	10"	300	1	297	309
	<b>FINAL CFM</b>	<b>% to design</b>					
	309	103.0					
SGRD5	DINING	A4	8"	200	1	157	180
	<b>FINAL CFM</b>	<b>% to design</b>					
	180	90.0					
SGRD6	DINING	A4	10"	300	1	265	301
	<b>FINAL CFM</b>	<b>% to design</b>					
	301	100.3					
SGRD7	DINING	A4	10"	250	1	291	255
	<b>FINAL CFM</b>	<b>% to design</b>					
	255	102.0					
SGRD8	DINING	A4	10"	300	1	237	275
	<b>FINAL CFM</b>	<b>% to design</b>					
	275	91.7					
SGRD9	DINING	A4	8"	200	1	193	208
	<b>FINAL CFM</b>	<b>% to design</b>					
	208	104.0					
SGRD10	DINING	A3	8"	150	1	210	150
	<b>FINAL CFM</b>	<b>% to design</b>					
	150	100.0					
SGRD11	DINING	A4	10"	275	1	318	269
	<b>FINAL CFM</b>	<b>% to design</b>					



	269	97.8					
SGRD12	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DINING	A4	10"	275	1	294	264
	<b>FINAL CFM</b>	<b>% to design</b>					
	264	96.0					
SGRD13	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DINING	A3	8"	150	1	206	158
	<b>FINAL CFM</b>	<b>% to design</b>					
	158	105.3					
SGRD14	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DINING	A3	8"	150	1	187	139
	<b>FINAL CFM</b>	<b>% to design</b>					
	139	92.7					
SGRD15	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DINING	A3	10"	300	1	307	324
	<b>FINAL CFM</b>	<b>% to design</b>					
	324	108.0					
SGRD16	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DINING	A4	10"	250	1	320	268
	<b>FINAL CFM</b>	<b>% to design</b>					
	268	107.2					
SGRD17	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DRINKS & CONDIMENT S	A3	10"	300	1	248	271
	<b>FINAL CFM</b>	<b>% to design</b>					
	271	90.3					
SGRD18	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DRINKS & CONDIMENT S	A4	8"	200	1	186	190
	<b>FINAL CFM</b>	<b>% to design</b>					
	190	95.0					
SGRD19	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	ENTRY	A4	10"	250	1	310	271
	<b>FINAL CFM</b>	<b>% to design</b>					
	271	108.4					
SGRD20	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	CUSTOMER ORDER AREA	A4	10"	300	1	271	310
	<b>FINAL CFM</b>	<b>% to design</b>					
	310	103.3					
SGRD21	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	CUSTOMER SERVICE	E	8"	200	1	220	218
	<b>FINAL CFM</b>	<b>% to design</b>					
	218	109.0					
SGRD22	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	CUSTOMER SERVICE	E	8"	200	1	222	211
	<b>FINAL CFM</b>	<b>% to design</b>					
	211	105.5					
SGRD23	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	CUSTOMER SERVICE	E	8"	200	1	204	212
	<b>FINAL CFM</b>	<b>% to design</b>					
	212	106.0					
SGRD24	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	CUSTOMER SERVICE	E	8"	200	1	208	219
	<b>FINAL CFM</b>	<b>% to design</b>					
	219	109.5					



Completed By: Brianna Biggs on

Asset	Notes
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Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: AHU/RTU



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Asset: RTU2

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622C01945
Model Num	LCH-156-H4B	LCH156H4BE5Y
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23.25X14
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	56HZ
Horsepower	-	2.0
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208/230	200-230
Rated Amperage	-	6.0-5.7

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.75"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3.0 TURNS OUT
Fan Sheave Size	-	BK95
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 5/8"
Num of Belts	-	1
Belt Size	-	BX59
Belt Alignment	-	GOOD

Test Data		
	Design	Actual
SF CFM	5000	4741
SF RPM	-	631
RA CFM	4050	3800
OA CFM	950	941
RL Voltage	-	209/210/208
RL Amperage	-	4.6/4.2/4.9
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	50%
Min OA Damper Type	-	OBD
Brake Horse Power	-	1.60

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.17"
Fan Suction SP	-	-0.42"
Fan Discharge SP	-	0.30"
Total ESP	-	0.47"
Fan Total SP	-	0.72"

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

Completed By: Stephen Tassinaro

Notes:



# National TAB

Project:05-30 CULVERS - WILDWOOD, FL

## AHU/RTU



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### Diffuser Supply (GRD)

#### RTU2/KITCHEN

Asset	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
SGRD1	DRIVE THRU	A4	12"	500	1	435	441
	<b>FINAL CFM</b>	<b>% to design</b>					
	464	92.8					
SGRD2	SUNDAE SERVICE	A4	10"	300	1	327	275
	<b>FINAL CFM</b>	<b>% to design</b>					
	278	92.7					
SGRD3	MOP ROOM	F4	12"	550	1	432	477
	<b>FINAL CFM</b>	<b>% to design</b>					
	502	91.3					
SGRD4	COOKLINE	F4	10"	300	1	309	377
	<b>FINAL CFM</b>	<b>% to design</b>					
	302	100.7					
SGRD5	COOKLINE	F4	10"	350	1	254	276
	<b>FINAL CFM</b>	<b>% to design</b>					
	321	91.7					
SGRD6	FOOD PREP	F4	10"	300	1	185	231
	<b>FINAL CFM</b>	<b>% to design</b>					
	271	90.3					
SGRD7	FOOD PREP	F4	10"	300	1	212	238
	<b>FINAL CFM</b>	<b>% to design</b>					
	271	90.3					
SGRD8	COOKLINE	F4	10"	350	1	331	332
	<b>FINAL CFM</b>	<b>% to design</b>					
	333	95.1					
SGRD9	COOKLINE	F4	10"	300	1	276	294
	<b>FINAL CFM</b>	<b>% to design</b>					
	308	102.7					
SGRD10	DISHWASHING	A4	10"	300	1	320	310
	<b>FINAL CFM</b>	<b>% to design</b>					
	295	98.3					
SGRD11	DISHWASHING	A4	10"	350	1	351	314
	<b>FINAL CFM</b>	<b>% to design</b>					



	328	93.7					
SGRD12	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	FOOD PREP	A4	10"	350	1	380	389
	<b>FINAL CFM</b>	<b>% to design</b>					
	351	100.3					
SGRD13	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	OFFICE	D1	9"	225	1	443	205
	<b>FINAL CFM</b>	<b>% to design</b>					
	212	94.2					
SGRD14	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	EMPLOYEE RR	C1	4"	25	1	228	138
	<b>FINAL CFM</b>	<b>% to design</b>					
	26	104.0					
SGRD15	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DRY GOODS	A4	8"	150	1	202	128
	<b>FINAL CFM</b>	<b>% to design</b>					
	136	90.7					
SGRD16	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	DRY GOODS	A4	8"	200	1	200	202
	<b>FINAL CFM</b>	<b>% to design</b>					
	205	102.5					
SGRD17	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	UTILITY	D1	7"	150	1	256	125
	<b>FINAL CFM</b>	<b>% to design</b>					
	138	92.0					

Completed By: Brianna Biggs on

Asset	Notes
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# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

## System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU-OA3

AREA:RTUs

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622C01949
Model Num	LCH-156-H4B	LCH156H4BJ5Y
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	31X17
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2
Num Final Filter 2	-	N/A
Final Filter Size 2	-	N/A

Test Data		
	Design	Actual
SF CFM	3250	3279
SF RPM	-	578
RA CFM	1250	1259
OA CFM	2000	2020
RL Voltage	-	209/211/209
RL Amperage	-	4.5/4.6/4.8
SF Rotation	-	CCW
RA Damper Position	-	3/4
Min OA Damper Position	-	100%
Min OA Damper Type	-	OBD
Brake Horse Power	-	1.63

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	56HZ
Horsepower	-	2.0
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208/230	200-230
Rated Amperage	-	6.0-5.7

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.13"
Fan Suction SP	-	-0.43"
Fan Discharge SP	-	0.05"
Total ESP	-	0.18"
Fan Total SP	-	0.48"

Drive Data		
	Design	Actual
Motor Sheave Size	-	MVL40B
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	5.0 TURNS OUT
Fan Sheave Size	-	BK95
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	21.0"
Num of Belts	-	1
Belt Size	-	BX59
Belt Alignment	-	GOOD

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

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF1

AREA:MENS RR

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	SPA-110	XCR-A200
<b>Serial Num</b>	-	19686902
<b>Type</b>	CEILING	CEILING
<b>Configuration</b>	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	GREENHECK
<b>Frame</b>	-	N/L
<b>Horsepower</b>	-	1/40
<b>Motor Rpm</b>	-	900
<b>Phase</b>	1	1
<b>Voltage (rated)</b>	115	115
<b>Amperage (rated)</b>	-	0.46
<b>Service Factor</b>	-	N/L

Test Data		
	Design	Actual
<b>CFM</b>	220	208
<b>Fan RPM</b>	900	DD
<b>Fan Rotation</b>	-	CORRECT
<b>Motor RPM</b>	-	DD
<b>System SetPt</b>	-	SPEED CONTROLLER
<b>RL Voltage</b>	-	119
<b>RL Amperage</b>	-	0.4
<b>Total ESP</b>	0.1"	INACCESSIBLE
<b>Fan Inlet SP</b>	-	-
<b>Fan Discharge SP</b>	-	-

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF2

AREA:MOP ROOM

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	SPA-110	XCR-B50
Serial Num	-	19686905
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	625
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.13
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	50	48
Fan RPM	625	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	120
RL Amperage	-	0.1
Total ESP	0.1"	-
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:[1] FAN IS NOT POWERED AT THIS TIME. EC AWARE. // RESOLVED.

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-A3

AREA:WOMENS RR

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XCR-B70	XCR-B70
Serial Num	-	19686910
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	70	71
Fan RPM	-	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	119
RL Amperage	-	0.1
Total ESP	0.1"	INACCESSIBLE
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-B3

AREA:WOMENS RR

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XCR-B70	XCR-B70
Serial Num	-	19686911
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	70	68
Fan RPM	-	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	120
RL Amperage	-	0.1
Total ESP	0.1"	INACCESSIBLE
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-C3

AREA:EMPLOYEE RR

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XCR-B70	XCR-B70
Serial Num	-	19686912
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	70	67
Fan RPM	-	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	119
RL Amperage	-	0.1
Total ESP	0.1"	-
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Stephen Tassinaro

Notes:[1] FAN NOT POWERED. EC AWARE. // RESOLVED.

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV2

AREA:HOOD 1

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB-161XP-15	XRUB-160XP-15-1-26-G
Serial Num	-	19687551
Type	UPBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Test Data		
	Design	Actual
CFM	1500	1395
Fan RPM	2411	2412
Fan Rotation	-	CW
Motor RPM	-	1769
RL Voltage	-	208/209/209
RL Amperage	-	3.3/3.3/3.5
Suction ESP	-	-0.77"
Discharge ESP	-	ATM
Total ESP	2.337"	0.77"

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	56
Horsepower	1.5	1.5
Motor Rpm	1725	1760
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	4.20/2.10
Service Factor	-	1.15

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP44
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	MAXIMIZED
Fan Sheave Size	-	3.0"
Fan Sheave Bore	-	1.0"
Belt CL Distance	-	6.0"
Num of Belts	-	1
Belt Size	-	AX24

Completed By: Stephen Tassinaro

Notes:[1] SEVERE FAN BLADE INTERERENCE. MC AWARE AND WORKING ON FAN. // RESOLVED.

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV3

AREA:HOOD 2

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	XRUB-141-7	XRUB-140-7-1-26-G
<b>Serial Num</b>	-	19687552
<b>Type</b>	UPBLAST	CENTRIFUGAL
<b>Configuration</b>	VERTICAL	UPBLAST

Test Data		
	Design	Actual
<b>CFM</b>	1500	1545
<b>Fan RPM</b>	1377	1260
<b>Fan Rotation</b>	-	CW
<b>Motor RPM</b>	-	1777
<b>RL Voltage</b>	-	209/210/211
<b>RL Amperage</b>	-	1.6/1.7/1.6
<b>Suction ESP</b>	-	-0.86"
<b>Discharge ESP</b>	-	ATM
<b>Total ESP</b>	1.0"	0.86"

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	WEG
<b>Frame</b>	-	56
<b>Horsepower</b>	0.75	0.75
<b>Motor Rpm</b>	1725	1760
<b>Phase</b>	3	3
<b>Voltage (rated)</b>	208	230/460
<b>Amperage (rated)</b>	-	2.30/1.15
<b>Service Factor</b>	-	1.25

Drive Data		
	Design	Actual
<b>Motor Sheave Size</b>	-	VP34
<b>Motor Bore Size</b>	-	5/8"
<b>Motor Sheave SetPt</b>	-	2.5 TURNS OUT
<b>Fan Sheave Size</b>	-	AK41
<b>Fan Sheave Bore</b>	-	3/4"
<b>Belt CL Distance</b>	-	5 5/8"
<b>Num of Belts</b>	-	1
<b>Belt Size</b>	-	AP23

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV4

AREA:HOOD 3

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	XRED - 090 -D	XRED-095-6-VG-1-17-X
<b>Serial Num</b>	-	19687547
<b>Type</b>	-	CENTRIFUGAL
<b>Configuration</b>	-	DOWNBLAST

Test Data		
	Design	Actual
<b>CFM</b>	-	319
<b>Fan RPM</b>	-	DD
<b>Fan Rotation</b>	-	CORRECT
<b>Motor RPM</b>	-	DD
<b>System SetPt</b>	-	SPEED CONTROLLER
<b>RL Voltage</b>	-	119
<b>RL Amperage</b>	-	0.65
<b>Total ESP</b>	-	0.31"
<b>Fan Inlet SP</b>	-	-0.31"
<b>Fan Discharge SP</b>	-	ATM

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	VARI-GREEN
<b>Frame</b>	-	N/L
<b>Horsepower</b>	-	1/6
<b>Motor Rpm</b>	-	300-1750
<b>Phase</b>	-	1
<b>Voltage (rated)</b>	-	115/208-230/277
<b>Amperage (rated)</b>	-	2.2/1.3/1.1
<b>Service Factor</b>	-	N/L

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

## System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD1

AREA:FRYER

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	XXEP-6.92-S	XXEP-83.00-S
<b>Job / Serial Num</b>	-	19692610
<b>Type</b>	TYPE I CANOPY	TYPE I CANOPY
<b>Hood length</b>	83"	83"
<b>Hood Width</b>	23"	23"

Performance Data		
	Design	Actual
<b>Smoke Generation Type</b>	-	SMOKE EMITTER
<b>Hood Capture %</b>	-	100%
<b>End Panels Installed (Y/N)</b>	-	YES

Test Data Exhaust		
	Design	Actual
<b>Filter Type</b>	XTRACTOR	XTRACTOR
<b>Filter Size 1</b>	16X16	16X16
<b>Filter Qty 1</b>	5	5
<b>Filter AK factor size 1</b>	1.53	1.53
<b>Filter Total AK Area</b>	7.65	7.65
<b>Filter1 FPM</b>	-	213
<b>Filter2 FPM</b>	-	198
<b>Filter3 FPM</b>	-	192
<b>Filter4 FPM</b>	-	191
<b>Filter5 FPM</b>	-	218
<b>Filter Ave FPM(corr)</b>	-	202
<b>CFM</b>	-	1545

General		
	Design	Actual
<b>Third Party Witness</b>	-	TEST RECORDED
<b>Third Party Company</b>	-	TEST RECORDED
<b>Tech Witness</b>	-	STEPHEN TASSINARO

Cooking Equipment		
	Design	Actual
<b>Item 1</b>	-	FRYER
<b>Item 2</b>	-	FRYER

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

## System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD2

AREA:GRILL

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XGEP-5.33-S	XGEP-64.00-S
Job / Serial Num	-	19692611
Type	TYPE I LOW PROXIMITY	TYPE I CANOPY
Hood length	64"	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	-	229
Filter2 FPM	-	268
Filter3 FPM	-	200
Filter4 FPM	-	214
Filter Ave FPM(corr)	-	228
CFM	-	1395

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

Performance Data		
	Design	Actual
Smoke Generation Type	-	SMOKE EMITTER
Hood Capture %	-	100%
End Panels Installed (Y/N)	-	YES

General		
	Design	Actual
Third Party Witness	-	TEST RECORDED
Third Party Company	-	TEST RECORDED
Tech Witness	-	STEPHEN TASSINARO

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



# National TAB

Project: 05-30 CULVERS - WILDWOOD, FL

## System/Unit: Kitchen Hood Type II



Comfort. Under control.

Asset: HD3

AREA:DISHWASHING

Unit Data		
	Design	Actual
<b>MFG</b>	ACCUREX	ACCUREX
<b>Model Num</b>	XD3-3.5-S	XD3-42.00-S
<b>Serial Num</b>	-	19692612
<b>Type</b>	TYPE II CANOPY	TYPE II CANOPY
<b>Hood length</b>	42"	42"
<b>Hood Width</b>	42"	42"

Test Data		
	Design	Actual
<b>Exhaust CFM</b>	350	319

Completed By: Stephen Tassinaro

Notes:

Asset	Notes



