Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 05/19/2023

PROJECT

05-15-23 CULVERS - COOPER CITY, FL

3700 NORTH UNIVERSITY DRIVE

COOPER CITY , FL 33024

Client

Accurex

PO Box 410

Schofield, WI 54476

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.

Issue List

- *CRITICAL* Diffuser 2-14 is above design air flow
- *CRITICAL* Hood#2 has not been completely wired.
- *NON-CRITICAL* Prodigy board terminals for humidistat and smoke alarm not plugged in.
- *NON-CRITICAL* Smoke alarms need to be installed in both units.

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

Project Issue Information

Issue Name : *CRITICAL* Diffuser 2-14 is above design air flow

Description : Currently at 753 CFM when design is at 600 CFM. Damper is stuck in place, recommended to fix to turn diffuser into design.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Open

Originated Date : 05/18/2023 - Ian Fuller - National TAB

Project Issue File Details

Diffuser1-14
05/18/2023

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

Project Issue Information

Issue Name : *CRITICAL* Hood#2 has not been completely wired.

Description : (RESOLVED) Hood currently does not have power going to it. Motor has not been completely wired. Unable to balance. Set to 5.5 V which is typical of XXEP-83 Accurex hoods.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Closed

Originated Date : 05/18/2023 - Ian Fuller - National TAB

Project Issue File Details

Hood2
05/18/2023

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

Project Issue Information

Issue Name : *NON-CRITICAL* Prodigy board terminals for humidistat and smoke alarm not plugged in.

Description : Recommended to finish setup of humidistats and smoke alarms and plug in terminals.

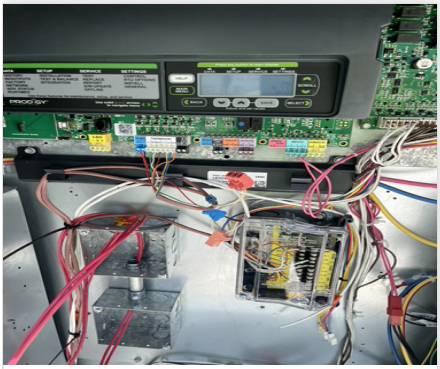
Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Open

Originated Date : 05/18/2023 - Ian Fuller - National TAB

Project Issue File Details



ProdigyBoard
05/18/2023

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

Project Issue Information

Issue Name : *NON-CRITICAL* Smoke alarms need to be installed in both units.
Description : Recommended to install.

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

Status : Open
Originated Date : 05/18/2023 - Ian Fuller - National TAB

Project Issue File Details

SmokeAlarm
05/18/2023

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	DINING	5850	6137	3950	4231	1900	1906	32.5%	31.1%						
RTU-2	KITCHEN	6150	6211	4250	4280	1900	1931	30.9%	31.1%						
PRV-2	HOOD 1											1500	1468		
PRV-3	HOOD 2											1500	1498		
PRV-4	HOOD 3											350	363		
PRV-1	RESTROOMS													375	369
EF-1A	MOP ROOM													75	69
TOTALS		12000	12348	8200	8511	3800	3837			0	0	3350	3329	450	438

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3800	3837
TOTAL EXHAUST	3800	3767
NET AIRFLOW	0	70

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0061
SIDE	0.0068
REAR	0.0041
AVERAGE	**0.0057**

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:

CheckList List

- SITE PICTURES
- TECH - STEP 1: INITIAL WALKTHROUGH
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3: TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

CheckList Information

Name :	SITE PICTURES	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/17/2023 - Wale Odofin - National TAB		
Completed Date :			

CheckList Item Details

STORE FRONT

Comment:

StoreFront
05/18/2023

RTU-1

Comment:

RTU1
05/18/2023

RTU-2

Comment:

RTU2
05/18/2023

PRV-1

Comment:

PRV1
05/18/2023

PRV-2

Comment:

PRV2
05/18/2023

PRV-3

Comment:

PRV3
05/18/2023

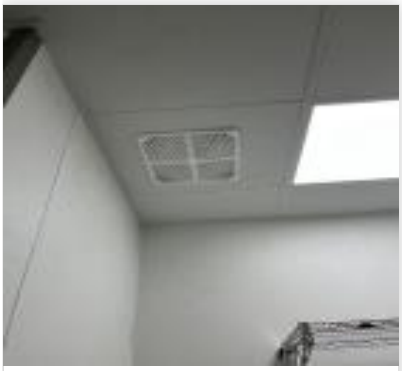
PRV-4

Comment:

PRV4
05/18/2023

EF-1A

Comment:



EF1A
05/18/2023

HOOD 1

Comment:

Hood1
05/18/2023

HOOD 2

Comment:

Hood2
05/18/2023

HOOD 3

Comment:

Hood3
05/18/2023

PRODIGY BOARD WIRING

Comment:

Wiring1
05/18/2023

Wiring2
05/18/2023

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/17/2023 - Wale Odofin - National TAB		
Completed Date :			

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?

Comment:

YES

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

Comment:

YES

All hood filters installed and accounted for?

Comment:

YES

Hoods are wired and have power?

Comment:

HOOD2 HAS NO POWER

Thermostats have power?

Comment:

YES

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

Comment:

YES

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/17/2023 - Wale Odofin - National TAB		
Completed Date :			

CheckList Item Details

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

RTU's/AHU's

Economizers are assembled and functional?

Comment:

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.)

Comment:

YES

Motors are all operating below the FLA rating?

Comment:

YES

Are belts tight?

Comment:

YES

If direct drive unit is the speed controller working.

Comment:

NA

Is gas piping installed and valves turned on?

Comment:

NA

Unit free of noticeable noise and vibration

Comment:

YES

EF's

Rotation is correct?

Comment:

YES

Belts are tight?

Comment:

NA

Grease cup installed on hood fan?

Comment:

YES

Hinge kit installed installed on hood fan?

Comment:

YES

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

Comment:

YES

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

Comment:

YES

There is no major leakage around base of fan?

Comment:

NONE OBSERVED

Is the motor operating below the motor FLA rating?

Comment:

YES

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

Comment:

YES

Unit free of noticeable noise and vibration?

Comment:

YES

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

Comment:

YES

HOODS

Kitchen equipment installed in proper places?

Comment:

YES

Can kitchen equipment be turned on for final smoke test?

Comment:

EQUIPMENT HAS NOT HAD STARTUPS

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

Comment:

YES

DOCUMENTATION

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

Comment:

YES

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/17/2023 - Wale Odofin - National TAB		
Completed Date :			

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?

Comment:

YES

Is space comfortable in all areas?

Comment:

YES

Is the space free of ventilation noise?

Comment:

YES

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

Comment:

NA

Comfort. Under control.

05-15-23 CULVERS - COOPER CITY, FL

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/17/2023 - Wale Odofin - National TAB		
Completed Date :			

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

EQUIPMENT HAS NOT HAD STARTUPS

List smoke candle type used

Comment:

45 SECOND SMOE CANDLE

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	05/18/2023

Comment:

TAB tech name / Firm

Comment:

IAN F / NTAB

Site super name / Firm

Comment:

GEO

Owner representative name / Firm (if Applicable)

Comment:

NA

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

Comment:

FRONT: 0.0173" BACK: 0.017"

ADDITIONAL

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

Comment:

YES

Thermostats are programmed?

Comment:

YES

PRODIGY SETTINGS FOR RTU'S

Parameter 65 set to 0

Comment:

YES

Parameter 78 set to 0

Comment:

YES

Parameter 105 set to 6

Comment:

YES

Parameter 156 set to 70 (Dining unit only)

Comment:

YES

Parameter 156 set to 65 (Kitchen Unit Only)

Comment:

YES

Parameter 170 set to 75 (Dining Unit Only)

Comment:

YES

Parameter 170 set to 70 (Kitchen Unit Only)

Comment:

YES

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

Comment:

YES

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

Comment:

YES

National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	ACCUREX/CAPTIVEAIERE	LENNOX
Serial Num	-	5622C02590
Model Num	NA	LCH240H4BJ4Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	23X13
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	-	5
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208	208-230
Rated Amperage	-	13.8-13.0

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP60BB
Motor Bore Size	-	1.125”
Motor Sheave SetPt	-	3.5 TURNS OUT
Fan Sheave Size	-	BK100
Fan Sheave Bore	-	1.1875”
Belt CL Distance	-	21.0”
Num of Belts	-	1
Belt Size	-	BX61
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	5850	6137
SF RPM	-	779
RA CFM	3950	4231
OA CFM	1900	1906
RL Voltage	-	209/210/209
RL Amperage	-	8.6/8.1/8.5
SF Rotation	-	CCW
RA Damper Position	-	50%
Min OA Damper Position	-	50%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.14”
Fan Suction SP	-	-0.70”
Fan Discharge SP	-	0.31”
Total ESP	0.75"	0.45"
Fan Total SP	-	1.01"

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

Completed By: Ian Fuller on 05/18/2023

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	ENTRY	SD1	8"	150	1	275	144	156	104.0
SGRD2	DINING	SD1	10"	300	1	423	310	305	101.7
SGRD3	DINING	SD1	8"	150	1	154	199	165	110.0
SGRD4	DINING	SD1	8"	150	1	139	161	155	103.3
SGRD5	DINING	SD1	8"	150	1	197	152	165	110.0
SGRD6	DINING	SD1	8"	150	1	143	167	153	102.0
SGRD7	DINING	SD1	8"	150	1	180	214	162	108.0
SGRD8	DINING	SD1	8"	150	1	209	164	160	106.7
SGRD9	DINING	SD1	8"	150	1	206	237	162	108.0
SGRD10	DINING	SD1	8"	150	1	205	187	164	109.3
SGRD11	DINING	SD1	8"	150	1	197	159	152	101.3
SGRD12	DINING	SD1	8"	150	1	179	166	151	100.7
SGRD13	DINING	SD1	8"	150	1	190	151	156	104.0
SGRD14	DINING	SD1	8"	150	1	202	167	159	106.0
SGRD15	DINING	SD1	8"	150	1	189	149	158	105.3
SGRD16	ENTRY	SD3	8"	150	1	217	163	156	104.0
SGRD17	DINING	SD1	12"	450	1	468	461	491	109.1
SGRD18	M.RESTROOM	SD4	8"	150	1	230	154	163	108.7
SGRD19	W.RESTROOM	SD4	8"	150	1	226	178	159	106.0
SGRD20	CST. SERVICE	SD1	10'	350	1	332	377	367	104.9
SGRD21	CST. SERVICE	SD1	10'	350	1	342	407	382	109.1
SGRD22	CST. SERVICE	SD1	10'	350	1	277	347	335	95.7
SGRD23	CST. SERVICE	SD1	10'	350	1	272	328	338	96.6
SGRD24	CST. SERVICE	SD1	12"	450	1	439	468	494	109.8
SGRD25	DRIVE THRU.	SD1	12"	500	1	501	535	511	102.2
SGRD26	OFFICE	SD1	10"	200	1	385	211	218	109.0
Total				5850		6777	6356	6137	104.91%

National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	ACCUREX/CAPTIVEAIRE	LENNOX
Serial Num	-	5622C02599
Model Num	NA	LCH240H4BJ4Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	23X13
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	-	5
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208	208-230
Rated Amperage	-	13.8-13.0

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP50BB
Motor Bore Size	-	1.125”
Motor Sheave SetPt	-	2.5 TURNS OUT
Fan Sheave Size	-	BK100
Fan Sheave Bore	-	1.1875”
Belt CL Distance	-	21.0”
Num of Belts	-	1
Belt Size	-	BX61
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	6150	6211
SF RPM	-	804
RA CFM	4250	4280
OA CFM	1900	1931
RL Voltage	-	210/212/210
RL Amperage	-	8.5/8.7/8.5
SF Rotation	-	CCW
RA Damper Position	-	50%
Min OA Damper Position	-	50%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.47”
Fan Suction SP	-	-0.76”
Fan Discharge SP	-	0.39”
Total ESP	0.75"	0.86"
Fan Total SP	-	1.15"

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

Completed By: Ian Fuller on 05/18/2023

National TAB

Project:05-15-23 CULVERS - COOPER CITY, FL

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	TOILET	SD1	8"	75	1	195	78	79	105.3
SGRD2	KITCHEN	SD5	8"	125	1	205	145	135	108.0
SGRD3	KITCHEN	SD5	10"	275	1	386	296	301	109.5
SGRD4	KITCHEN	SD5	10"	250	1	325	260	267	106.8
SGRD5	KITCHEN	SD5	12"	400	1	465	408	409	102.3
SGRD6	KITCHEN	SD5	12"	400	1	668	384	384	96.0
SGRD7	KITCHEN	SD5	12"	375	1	327	506	355	94.7
SGRD8	KITCHEN	SD5	10"	200	1	303	210	213	106.5
SGRD9	KITCHEN	SD1	12"	600	1	516	602	604	100.7
SGRD10	SUNDAE SERV.	SD1	12"	600	1	471	551	555	92.5
SGRD11	KITCHEN	SD5	12"	350	1	236	280	315	90.0
SGRD12	KITCHEN	SD5	12"	350	1	475	362	347	99.1
SGRD13	KITCHEN	SD5	12"	350	1	580	441	360	102.9
SGRD14	DRY GOODS	SD1	12"	600	1	661	772	753	125.5
SGRD15	DRY GOODS	SD1	12"	600	1	443	511	552	92.0
SGRD16	UTILITY RM.	SD1	12"	600	1	498	585	582	97.0
Total				6150		6754	6391	6211	100.99%

Asset	Notes	Date	Written By
SGRD14	BROKEN DAMPER CANNOT TURN DIFFUSER INTO DESIGN AIRFLOW.		

National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EFA1 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B80	XCR-B80
Serial Num	-	2157394
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	900	900
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.16
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	75	69
Fan RPM	885	MAX
Fan Rotation	-	CCW
Motor RPM	-	MAX
System SetPt	-	MAX
RL Voltage	-	122
RL Amperage	-	0.1
Total ESP	0.125"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	NA

Completed By: Ian Fuller on 05/18/2023

National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-090-VG	XRED-090-VG
Serial Num	-	NA
Type	DOWNBLAST	DOWNBLAST
Configuration	CENTRIFUGAL	CENTRIFUGAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARIGREEN
Frame	-	N/L
Horsepower	0.1"	0.1
Motor Rpm	1725	300-1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.38
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	375	369
Fan RPM	1465	10 V
Fan Rotation	-	CCW
Motor RPM	-	10 V
System SetPt	-	10 V
RL Voltage	-	122
RL Amperage	-	1.2
Total ESP	0.5	0.47"
Fan Inlet SP	-	-0.47"
Fan Discharge SP	-	ATM

Completed By: Ian Fuller on 05/18/2023

Diffuser Ret/Exh (GRD)

PRV1/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	M.RESTROOM	EG1	8X8	150	1	79	136	136	90.7
EGRD2	W. RESTROOM	EG1	8X8	150	1	91	161	161	107.3
EGRD3	TOILET	NA	8X8	75	1	77	135	72	96.0
Total				375		247	432	369	98.4%

National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV2 AREA:HOOD 1

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-160XP-15	XCUE-140-10-VG-1-26-G
Serial Num	-	21546710
Type	UPBLAST	UPBLAST
Configuration	CENTRIFUGAL	CENTRIFUGAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARIGREENE
Frame	-	N/L
Horsepower	1.5	1
Motor Rpm	1725	300-1750
Phase	3	1
Voltage (rated)	208	115
Amperage (rated)	-	11.5
Service Factor	-	N/L

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

Test Data		
	Design	**Actual**
CFM	1500	1468
Fan RPM	2411	7.0 V
Fan Rotation	-	CCW
Motor RPM	-	7.0 V
RL Voltage	-	122
RL Amperage	-	8.1
Suction ESP	-	-0.87"
Discharge ESP	-	ATM
Total ESP	2.337"	0.87"

Completed By: Ian Fuller on 05/18/2023

National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV3 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-140-7	XCUE-140-10-VG-1-26-G
Serial Num	-	21546723
Type	UPBLAST	UPBLAST
Configuration	CENTRIFUGAL	CENTIRFUGAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARIGREEN
Frame	-	N/L
Horsepower	0.75"	1
Motor Rpm	1725	300-1750
Phase	3	1
Voltage (rated)	208	115
Amperage (rated)	-	11.5
Service Factor	-	N/L

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

Test Data		
	Design	**Actual**
CFM	1500	1498
Fan RPM	1377	963
Fan Rotation	-	CCW
Motor RPM	-	5.5 V
RL Voltage	-	121
RL Amperage	-	6.1
Suction ESP	-	-0.41"
Discharge ESP	-	ATM
Total ESP	1.0"	0.41"

Completed By: Ian Fuller on 07/10/2023

Notes:
WIRING ISSUE WITH FAN

Written By: on

National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: PRV 4 AREA:DISH HOOD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-095-VG	XRED-095-VG
Serial Num	-	NA
Type	DOWNBLAST	DOWNBLAST
Configuration	CENTRIFUGAL	CENTRIFUGAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARIGREEN
Frame	-	N/L
Horsepower	0.167	0.167
Motor Rpm	1725	300-1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.2
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	350	363
Fan RPM	1486	5.5 V
Fan Rotation	-	CCW
Motor RPM	-	5.5 V
System SetPt	-	5.5 V
RL Voltage	-	122
RL Amperage	-	1.3
Total ESP	0.6"	0.38"
Fan Inlet SP	-	-0.38"
Fan Discharge SP	-	ATM

Completed By: Ian Fuller on 05/18/2023

National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

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-S
Job / Serial Num	-	21531042
Type	TYPE I	TYPE 1 LOW PROXIMITY
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	-	254
Filter2 FPM	-	224
Filter3 FPM	-	227
Filter4 FPM	-	258
Filter Ave FPM(corr)	-	240
CFM	1500	1468

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

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National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD2 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XXEP-83-S	XXEP-83-S
Job / Serial Num	-	21531039
Type	TYPE I	TYPE 1 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	-	202
Filter2 FPM	-	212
Filter3 FPM	-	218
Filter4 FPM	-	206
Filter5 FPM	-	208
Filter Ave FPM(corr)	-	209
CFM	1500	1498

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

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National TAB

Project: 05-15-23 CULVERS - COOPER CITY, FL

System/Unit: Kitchen Hood Type II

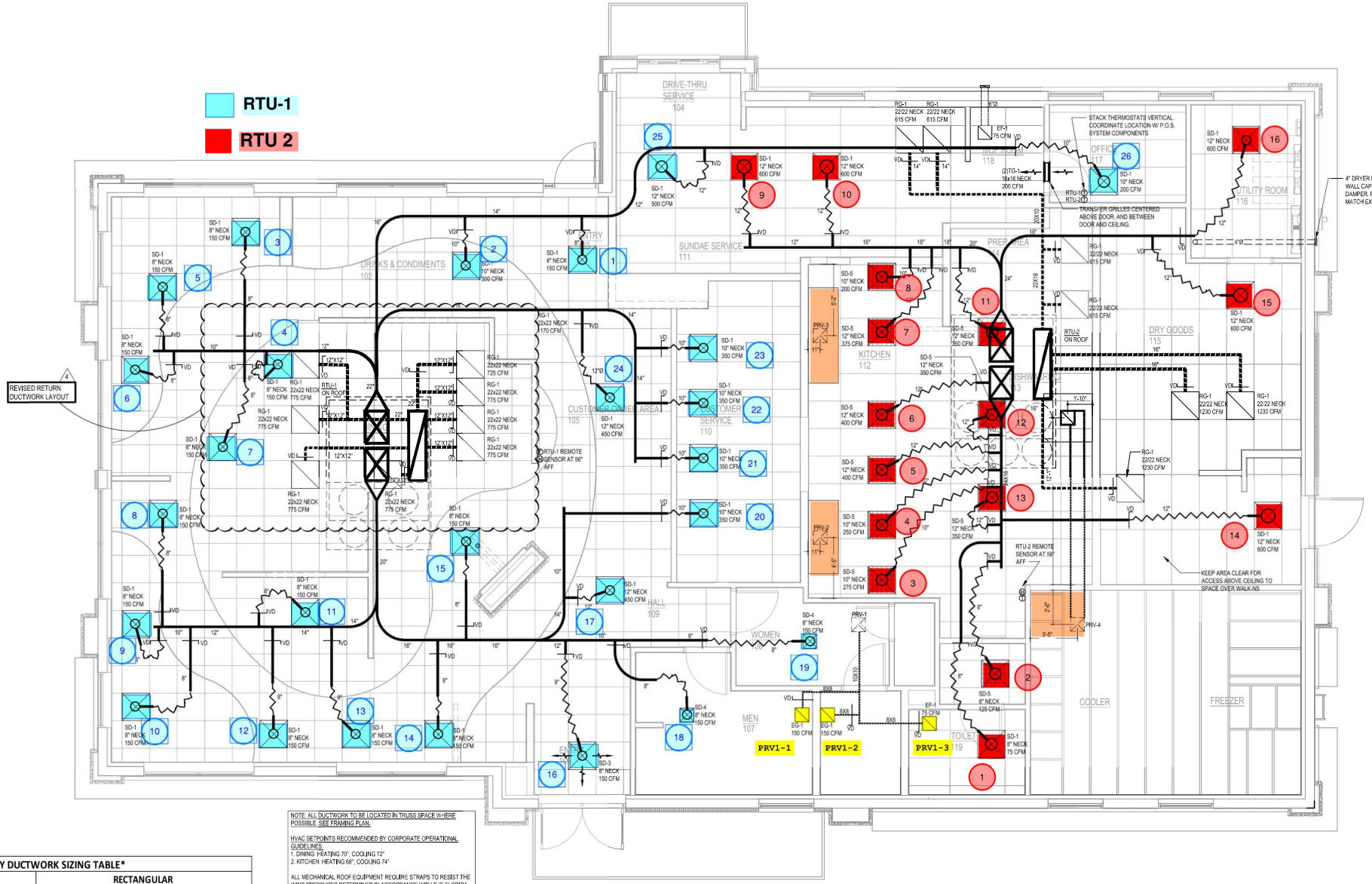
Comfort. Under control.

Asset: HD3 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XD3-42-S	XD3-42-S
Serial Num	-	21321044
Type	TYPE II	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42"	42"

Test Data		
	Design	**Actual**
Exhaust CFM	350	363

Completed By: Ian Fuller on 05/18/2023



SUPPLY DUCTWORK SIZING TABLE*			
ROUND		RECTANGULAR	
SIZE	CFM RANGE	SIZE	CFM RANGE
8"	115 - 235	8"x8"	205 - 300

NOTE: ALL DUCTWORK TO BE LOCATED IN TRUSS SPACE WHERE POSSIBLE. SEE FRAMING PLAN.

HVAC SETPOINTS RECOMMENDED BY CORPORATE OPERATIONAL GUIDELINES:
1. DINING: HEATING 70°, COOLING 72°
2. KITCHEN: HEATING 68°, COOLING 74°

ALL MECHANICAL ROOF EQUIPMENT REQUIRE STRAPS TO RESIST THE WIND PRESSURES DETERMINED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, BUILDING. SEE STRUCTURAL PLANS FOR SPECIFICATIONS.

Date: 9/27/2023