Report By:

National TAB
1329 E Kemper Rd, Ste 4210
Cincinnati, OH 45246

Report: **Test and Balance**
Date: **5/12/2021**

PROJECT

CULVERS - INDIANAPOLIS, IN

4805 SOUTH EMERSON AVE
INDIANAPOLIS, IN 46203

Client

Accurex
PO Box 410
Schofield, WI 54476

National TAB

Project: CULVERS - INDIANAPOLIS, IN

Table Of Contents

REMARKS

Assigned Organization: National TAB

Status: Not Submitted

Asset:

PRIORITY (HIGH/LOW/INFO ONLY)	
LOW	RTU-2 supply airflow is 6225 CFM on drawings but the actual RTU installed is a 10 unit which should typically be 4000 CFM design. Diffuser airflows were proportionally reduced to ensure unit performs properly. Outside air was set as high as possible for both RTU-1 and 2 (~33% ratio) and net building pressure is -625 CFM. Cannot increase the outside air further without likely causing heating and cooling issues. The building pressure was slightly negative so there are no concerns with doors being hard to open, but if humidity issues are observed during the summer months, an additional source of outside air may be required in order to get building pressure neutral.

Notes/Comments:

Project Summary

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 recorded at -0.0136" W.C. average. This pressure falls within the recommended tolerances by the International Mechanical Code of +0.02" W.C. to -0.02" W.C. The building is designed for a net positive pressure and this measurement coincides with that requirement.
The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat "off" and 100% capture was observed.

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	6150	6064	4150	4126	2000	1938	32.5%	32.0%						
RTU-2	KITCHEN	4000	4064	2650	2778	1350	1286	33.8%	31.6%						
PRV-1	RESTROOMS													375	372
PRV-2	HD1 GRILL											1500	1475		
PRV-3	HD2 FRYER											1500	1567		
PRV-4	CONDENSATE											350	339		
EF-1	MOP ROOM													75	72
EF-2	EMPLOYEE RR													75	77
TOTALS		10150	10128	6800	6904	3350	3224					3350	3381	525	521

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3350	3224
TOTAL EXHAUST	3875	3902
NET AIRFLOW	-525	-678

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	-0.0131
SIDE	-0.0126
REAR	-0.0152
AVERAGE	**-0.0136**

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:

STORE FRONT

RTU-1

RTU-2

HD-1

HD-2

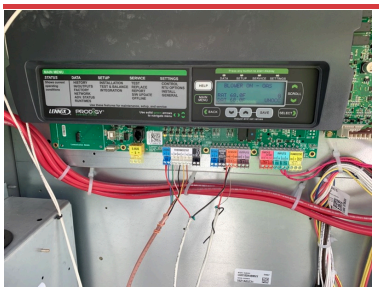
HD-3

PRV-1

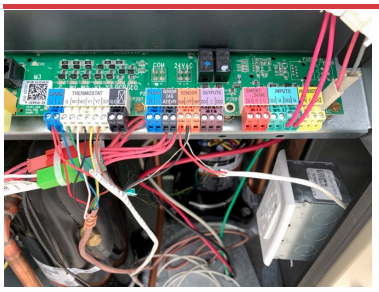
PRV-2

PRV-3

PRV-4

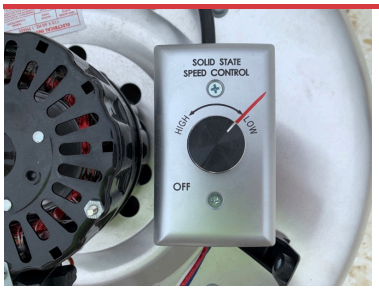


RTU-1 PRODIGY WIRING MISSING OCP WIRE



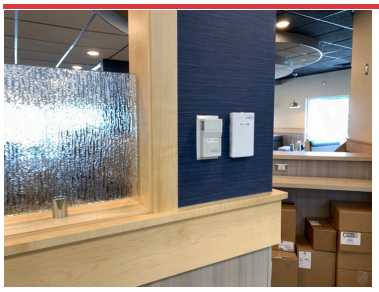
RTU-2 PRODIGY WIRING MISSING OCP WIRE

PRV-1 SETPOINT



PRV-4 SETPOINT

THERMOSTATS



RTU-1 SENSOR LOCATION

RTU-2 SENSOR LOCATION

RTU-1 OA POSITION MARKED

HD-1 GREASE DUCT

HD-2 GREASE DUCT

TECH - STEP 1: INITIAL SITE WALKTHROUGH

Assigned Organization: National TAB

Status: Not Submitted

Asset:

INITIAL SITE WALKTHROUGH	
Review Plan Review Checklist, has it been signed off and meets our standards to start balancing? If not contact processor to ensure job is ready.	JOB IS READY
All diffusers and grilles are installed and match design?	ALL DIFFUSERS AND GRILLES MATCH DESIGN
Perforated diffusers are installed on the cook line? (4-ways will disrupt hood capture)	PERFORATED DIFFUSERS INSTALLED ON COOK LINE
All hood filters installed and accounted for?	ALL HOOD FILTERS INSTALLED
Hoods are wired and have power?	HOODS HAVE POWER
Thermostats have power?	THERMOSTATS HAVE POWER
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	GC NOTIFIED OF ANY ISSUES

Notes/Comments:

TECH - STEP 2: UNIT DATA AND EVALUATION

Assigned Organization: National TAB

Status: Not Submitted

Asset:

UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:	
RTU's/AHU's	
Economizers are assembled and functional?	ECONOMIZERS ARE ASSEMBLED AND WORKING
Thermostat wire run from OCP on the RTU to the Ec terminal at the thermostat? If no, jumper can be installed from R to OCP temporarily. (The economizers will not open without OCP being energized.)	NO WIRE FROM OCP TO Ec. GC AND HVAC CONTRACTOR HAVE BEEN NOTIFED AND WILL BE CORRECT BY 05/03/2021
Motors are all operating below the FLA rating?	ALL MOTORS OPERATING BELOW FLA RATING
Are belts tight?	BELTS ARE TIGHT
If direct drive unit is the speed controller working.	NA
Is gas piping installed and valves turned on?	GAS INSTALLED AND TURNED ON
Unit free of noticeable noise and vibration	UNIT IS FREE OF NOTICEABLE NOISE AND VIBRATION
EF's	
Rotation is correct?	ROTATION IS CORRECT
Belts are tight?	BELTS ARE TIGHT
Grease cup installed on hood fan?	GREASE CUPS ARE NOT INSTALLED. GC AND MECHANICAL CONTRACTOR HAVE BEEN NOTIFED AND WILL BE FIXED.
Hinge kit installed installed on hood fan?	HINGE KIT INSTALLED ON HOOD FANS
Lean grease rated fans back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	GRESE DUCT INSTALLATION IS ADEQUATE
Flex conduit is long enough so that fan can be completely tilted back?	FLEX IS LONG ENOUGH TO TILT FAN BACK
There is no major leakage around base of fan?	NO LEAKAGE AROUND BASE OF FAN
Is the motor operating below the motor FLA rating?	ALL MOTORS OPERATING BELOW FLA RATING
For restroom fan(s) is the back draft damper installed and can it fully open?	BACK DRAFT DAMPER INSTALLED
Unit free of noticeable noise and vibration?	UNIT FREE OF NOTICEABLE NOISE AND VIBRATION
The hood exhaust fans are installed in correct positions and are not switched?	HOOD FANS ARE IN CORRECT POSTIONS
HOODS	

Kitchen equipment installed in proper places?	KITCHEN EQUIPMENT INSTALLED IN PROPER PLACE
Can kitchen equipment be turned on for final smoke test?	NO
Second stage Grease Grabber filters are installed on the griddle hood?	SECOND STAGE FILTERS INSTALLED
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	GC NOTIFED OF ANY ISSUES

Notes/Comments:

TECH - STEP 3: TEST, ADJUST AND BALANCE

Assigned Organization: National TAB

Status: Not Submitted

Asset:

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:	
DURING TESTING MAKE NOTE OF THE FOLLOWING:	
Is space free of drafting?	SPACE IS FREE OF DRAFTING
Is space comfortable in all areas?	SPACE IS COMFORTABLE IN ALL AREAS
Is the space free of ventilation noise?	SPACE FREE OF VENTILATION NOISE
If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".	NA

Notes/Comments:

TECH - STEP 4: FINAL TESTS

Assigned Organization: National TAB

Status: Not Submitted

Asset:

FINAL TESTS	
HOOD CAPTURE TEST	
List equipment turned on for testing	NO EQUIPMENT ON FOR TESTING
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	4/29/2021
TAB tech name / Firm	CHRISTOPHER CHESNUT / NATIONAL TAB
Site super name / Firm	ROB BRUSS / CAMBELL CONSTRUCTION
Owner representative name / Firm (if Applicable)	NA
Building pressure at front & back doors (All Systems On)	FRONT = -0.0131" / SIDE= -0.0126" / REAR= -0.0152" AVG= -0.0136"
ADDITIONAL	
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	NET BUILDING AIRFLOW COINCIDES WITH BUILDING PRESSURE
Thermostats are programmed?	THERMOSTATS ARE PROGRAMMED
PRODIGY SETTINGS FOR RTU'S	
Parameter 65 set to 0	PARAMETER SET
Parameter 78 set to 0	PARAMETER SET
Parameter 105 set to 6	PARAMETER SET
Parameter 156 set to 70 (Dining unit only)	PARAMETER SET
Parameter 156 set to 65 (Kitchen Unit Only)	PARAMETER SET
Parameter 170 set to 75 (Dining Unit Only)	PARAMETER SET
Parameter 170 set to 70 (Kitchen Unit Only)	PARAMETER SET
Parameter 131 set to the same % as OA minimum position?	PARAMETER SET
Parameter 117 set to the same % as OA minimum position?	PARAMETER SET

Notes/Comments:

System/Unit: AHU/RTU

Asset: RTU-1 AREA: DINING

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Model Num	LGH180H4B	LGH180H4B
Serial Num	-	5621A05231
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
Num Final Filter 2	-	NA
Final Filter Size 2	-	NA

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

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	MVL40B
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	7” FIXED PULLEY
Fan Sheave Bore	-	1.125”
Belt CL Distance	-	20.625”
Num of Belts	-	1
Belt Size	-	BX55
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	6150	6064
SF RPM	-	854
RA CFM	4150	4126
OA CFM	2000	1938
RL Voltage	-	215/215/216
RL Amperage	-	7.7/7.8/7.8
SF Rotation	-	CW
RA Damper Position	-	49% OPEN
Min OA Damper Position	-	51% OPEN
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.50"
Fan Suction SP	-	-0.76"
Fan Discharge SP	-	0.41"
Total ESP	O.50"	0.91"
Fan Total SP	-	1.17"

General		
	Design	**Actual**
Fan Rotation Correct	-	CORRECT
Unit Filters Clean	-	CLEAN
Condensate Drain Installed	-	INSTALLED

Completed By: Chris Chesnut on 04/30/2021

Notes: [1] DAMPER POSITION MAKRED ON MOTORIZED DAMPER
[2] MECH RTU SCHEDULE = 6000 CFM
MECH PLANS LAYOUT = 6150 CFM

Diffuser Supply (GRD)

RTU-1 / DINING

Asset	Area Served	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	101	CD-15	8"	150	1	173	149	149	99.3
SGRD2	101	CD-15	8"	150	1	166	156	156	104.0
SGRD3	101	CD-13	8"	150	1	177	139	139	92.7
SGRD4	101	CD-10	8"	150	1	181	141	141	94.0
SGRD5	101	CD-10	8"	150	1	154	146	146	97.3
SGRD6	101	CD-10	8"	150	1	144	153	153	102.0
SGRD7	101	CD-10	8"	150	1	146	148	148	98.7
SGRD8	101	CD-10	8"	150	1	164	155	155	103.3
SGRD9	105	CD-10	8"	150	1	123	159	159	106.0
SGRD10	106	CD-10	8"	150	1	169	148	148	98.7
SGRD11	107	CD-10	8"	150	1	203	153	153	102.0
SGRD12	108	CD-10	8"	150	1	93	144	144	96.0
SGRD13	109	CD-10	8"	150	1	176	153	153	102.0
SGRD14	110	CD-10	8"	150	1	216	158	158	105.3
SGRD15	110	CD-10	8"	150	1	141	146	146	97.3
SGRD16	110	CD-10	8"	150	1	165	153	153	102.0
SGRD17	110	CD-10	8"	150	1	195	161	161	107.3
SGRD18	110	CD-18	10"	300	1	149	289	289	96.3
SGRD19	117	CD-10	8"	150	1	249	147	147	98.0
SGRD20	104	CD-11	10"	500	1	245	419	419	83.8
SGRD21	103	CD-12	10"	200	1	305	204	204	102.0
SGRD22	102	CD-16	12"	450	1	486	436	436	96.9
SGRD23	101	CD-10	8"	150	1	187	140	140	93.3
SGRD24	101	CD-16	12"	450	1	441	463	463	102.9
SGRD25	101	WD-10	10"	350	1	177	358	358	102.3
SGRD26	101	WD-10	10"	350	1	370	361	361	103.1
SGRD27	101	WD-10	10"	350	1	406	340	340	97.1
SGRD28	101	WD-10	10"	350	1	316	345	345	98.6

Completed By: Chris Chesnut on 04/30/2021

Asset	Area Served	Notes
SGRD20	104	[1] UNABLE TO ACHEIVE DESIGN CFM FROM DIFFUSER THAT SERVICES THE DRIVE THROUGH AREA. DAMPER IS FULLY OPEN WITH NO KINKS IN LINE.

System/Unit: AHU/RTU

Asset: RTU-2 AREA: KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Model Num	LGH120H4B	LGH120H4B
Serial Num	-	5621A02553
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23X13
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	NA
Final Filter Size 2	-	NA

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

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4” VARIABLE PITCH PULLEY
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	2 TURNS OUT
Fan Sheave Size	-	7.25” FIXED PULLEY
Fan Sheave Bore	-	1”
Belt CL Distance	-	21.50”
Num of Belts	-	1
Belt Size	-	AX58
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	4000	4064
SF RPM	-	841
RA CFM	2650	2778
OA CFM	1350	1286
RL Voltage	-	214/216/216
RL Amperage	-	6.1/6.3/6.4
SF Rotation	-	CW
RA Damper Position	-	54% OPEN
Min OA Damper Position	-	46% OPEN
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.61"
Fan Suction SP	-	-0.84"
Fan Discharge SP	-	0.45"
Total ESP	0.50"	1.06"
Fan Total SP	-	1.29"

General		
	Design	**Actual**
Fan Rotation Correct	-	CORRECT
Unit Filters Clean	-	CLEAN
Condensate Drain Installed	-	INSTALLED

Completed By: Chris Chesnut on 04/30/2021

Notes: [1] MECHANICAL LAYOUT CALLS FOR 6225 CFM FROM UNIT. THE DIFFUSER SCHEDULE WAS PROPORTIONALLY BALANCED DOWN TO 4000 CFM AS THIS IS THE EXPECTED YIELD OF THIS 10 TON UNIT.

System/Unit: AHU/RTU

Diffuser Supply (GRD)

RTU-2 / KITCHEN

Asset	Area Served	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	112	CD-20	10"	385	1	262	395	387	100.5
SGRD2	112	CD-22	10"	385	1	284	395	389	101.0
SGRD3	119	CD-27	10"	177	1	190	181	180	101.7
SGRD4	119	CD-26	10"	160	1	239	165	173	108.1
SGRD5	113	CD-25	12"	257	1	269	263	259	100.8
SGRD6	113	CD-25	12"	257	1	317	263	265	103.1
SGRD7	114	CD-24	12"	240	1	246	247	240	100.0
SGRD8	112	CD-23	10"	129	1	229	132	136	105.4
SGRD9	112	CD-21	12"	225	1	330	230	238	105.8
SGRD10	114	CD-21	12"	225	1	317	230	218	96.9
SGRD11	114	CD-21	12"	225	1	376	230	223	99.1
SGRD12	115	CD-14	8"	50	1	109	50	53	106.0
SGRD13	115	WD-20	12"	385	1	205	395	388	100.8
SGRD14	116	CD-29	12"	385	1	247	395	386	100.3
SGRD15	118	CD-30	10"	129	1	165	132	128	99.2
SGRD16	111	WD-20	12"	386	1	315	395	401	103.9

Completed By: Chris Chesnut on 04/30/2021

Asset	Area Served	Notes

System/Unit: FAN - Exhaust

Asset: EF-1 AREA: MOP SINK

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B80	XCR-B80
Serial Num	-	17461374
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

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

Test Data		
	Design	**Actual**
CFM	75	72
Fan RPM	885	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	MEDIUM
RL Voltage	-	115
RL Amperage	-	0.12
Total ESP	0.125"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	NA

Completed By: Chris Chesnut on 04/30/2021

Notes:

System/Unit: FAN - Exhaust

Asset: EF-2 AREA: EMPLOYEE RR

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B80	XCR-B80
Serial Num	-	17461375
Type	CEILING	CEILING
Configuration	HORIZONTAL	HORIZONTAL

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

Test Data		
	Design	**Actual**
CFM	75	77
Fan RPM	885	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	MEDIUM
RL Voltage	-	115
RL Amperage	-	0.11
Total ESP	0.125"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	NA

Completed By: Chris Chesnut on 04/30/2021

Notes:

System/Unit: FAN - Exhaust

Asset: PRV-1 AREA: 108 RESTROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-090-D	XRED-095-D
Serial Num	-	17465793
Type	DOWNBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	MCMILLAN
Frame	-	NA
Horsepower	0.0667	0.67
Motor Rpm	1550	1550
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.6
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	375	372
Fan RPM	1479	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	LOW
RL Voltage	-	115
RL Amperage	-	1.90
Total ESP	0.5"	0.26
Fan Inlet SP	-	-0.26"
Fan Discharge SP	-	ATM

Completed By: Chris Chesnut on 04/30/2021

Notes:

Diffuser Ret/Exh (GRD)

PRV-1 / 108 RESTROOM

Asset	Area Served	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	108	EG-2	8"	188	1	122	149	185	98.4
EGRD2	108	EG-2	8"	188	1	207	161	187	99.5

Completed By: Chris Chesnut on 04/28/2021

Asset	Area Served	Notes

System/Unit: FAN - Exhaust

Asset: PRV-2 AREA: KITCHEN GRIDDLE HOOD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-161XP-15	XRUB-161XP-15
Serial Num	-	17465827/20L
Type	UPBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

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

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	VP44
Motor Bore Size	-	0.625”
Motor Sheave SetPt	-	2 TURNS OUT
Fan Sheave Size	-	3” FIXED PULLEY
Fan Sheave Bore	-	1”
Belt CL Distance	-	6”
Num of Belts	-	1
Belt Size	-	AX23

Test Data		
	Design	**Actual**
CFM	1500	1475
Fan RPM	2411	2362
Fan Rotation	-	CW
Motor RPM	-	1749
RL Voltage	-	208/213/213
RL Amperage	-	3.0/3.2/3.2
Suction ESP	-	-0.79"
Discharge ESP	-	ATM
Total ESP	2.337"	0.79"

Completed By: Chris Chesnut on 04/30/2021

Notes:

System/Unit: FAN - Exhaust

Asset: PRV-3 AREA: KITCHEN FRYER HOOD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-141-7	XRUB-141-7
Serial Num	-	17465856/20L
Type	UPBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	WEG
Frame	-	56H
Horsepower	0.75	0.75
Motor Rpm	1725	1765
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	2.30
Service Factor	-	1.15

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	VP34S
Motor Bore Size	-	0.625”
Motor Sheave SetPt	-	2 TURNS OUT
Fan Sheave Size	-	AK41
Fan Sheave Bore	-	0.75”
Belt CL Distance	-	6”
Num of Belts	-	1
Belt Size	-	AP23

Test Data		
	Design	**Actual**
CFM	1500	1567
Fan RPM	1377	1196
Fan Rotation	-	CW
Motor RPM	-	1761
RL Voltage	-	210/212/212
RL Amperage	-	2.0/2.1/2.3
Suction ESP	-	-0.70"
Discharge ESP	-	ATM
Total ESP	1.00"	0.70"

Completed By: Chris Chesnut on 04/30/2021

Notes:

System/Unit: FAN - Exhaust

Asset: PRV-4

AREA: DISWASHER CONDENSATE HOOD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-090-D	XRED-095-D
Serial Num	-	17465873
Type	DOWNBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	MCMILLAN
Frame	-	NA
Horsepower	0.0667	0.67
Motor Rpm	1550	1550
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.6
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	350	339
Fan RPM	1455	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	LOW
RL Voltage	-	115
RL Amperage	-	2.0
Total ESP	0.50"	0.22"
Fan Inlet SP	-	-0.22"
Fan Discharge SP	-	ATM

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Notes:

System/Unit: Kitchen Hood Type I

Asset: HD-1 AREA: GRILL

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XGEP-64-S	XGEP-64-S
Job / Serial Num	-	17488934
Type	TYPE I LOW PROXIMT	TYPE I LOW PROXIMT
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	-	230.
Filter2 FPM	-	254
Filter3 FPM	-	230
Filter4 FPM	-	248
Filter5 FPM	-	NA
Filter6 FPM	-	NA
Filter7 FPM	-	NA
Filter8 FPM	-	NA
Filter9 FPM	-	NA
Filter10 FPM	-	NA
Filter11 FPM	-	NA
Filter12 FPM	-	NA
Filter Ave FPM(corr)	-	241
CFM	1500	1475

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

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Notes:

Performance Data		
	Design	**Actual**
Smoke Generation Type	-	45 SECOND SMOKE EMITTER
Hood Capture %	-	100
End Panels Installed (Y/N)	-	YES

General		
	Design	**Actual**
Third Party Witness	-	ROB BRUSS
Third Party Company	-	CAMBELL CONSTRUCTION
Tech Witness	-	CHRISTOPHER CHESNUT
Tech Company	-	NATIONAL TAB

System/Unit: Kitchen Hood Type I

Asset: HD-2 AREA: FRYER

Unit Data		
	Design	**Actual**
MFG	ACCEREX	ACCEREX
Model Num	XXEP-83-S	XXEP-83-S
Job / Serial Num	-	17488934
Type	TYPE I LOW PROXIMT	TYPE I LOW PROXIMT
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	-	215
Filter2 FPM	-	207
Filter3 FPM	-	203
Filter4 FPM	-	180
Filter5 FPM	-	220
Filter6 FPM	-	NA
Filter7 FPM	-	NA
Filter8 FPM	-	NA
Filter9 FPM	-	NA
Filter10 FPM	-	NA
Filter11 FPM	-	NA
Filter12 FPM	-	NA
Filter Ave FPM(corr)	-	205
CFM	1500	1567

Cooking Equipment		
	Design	**Actual**
Item 1	-	FRYER
Item 2	-	NA

Performance Data		
	Design	**Actual**
Smoke Generation Type	-	45 SECOND SMOKE EMITTER
Hood Capture %	-	100
End Panels Installed (Y/N)	-	YES

General		
	Design	**Actual**
Third Party Witness	-	ROB BRUSS
Third Party Company	-	CAMBELL CONSTRUCTION
Tech Witness	-	CHRISTOPHER CHESNUT
Tech Company	-	NATIONAL TAB

Completed By: Chris Chesnut on 04/30/2021

Notes:

System/Unit: Kitchen Hood Type II

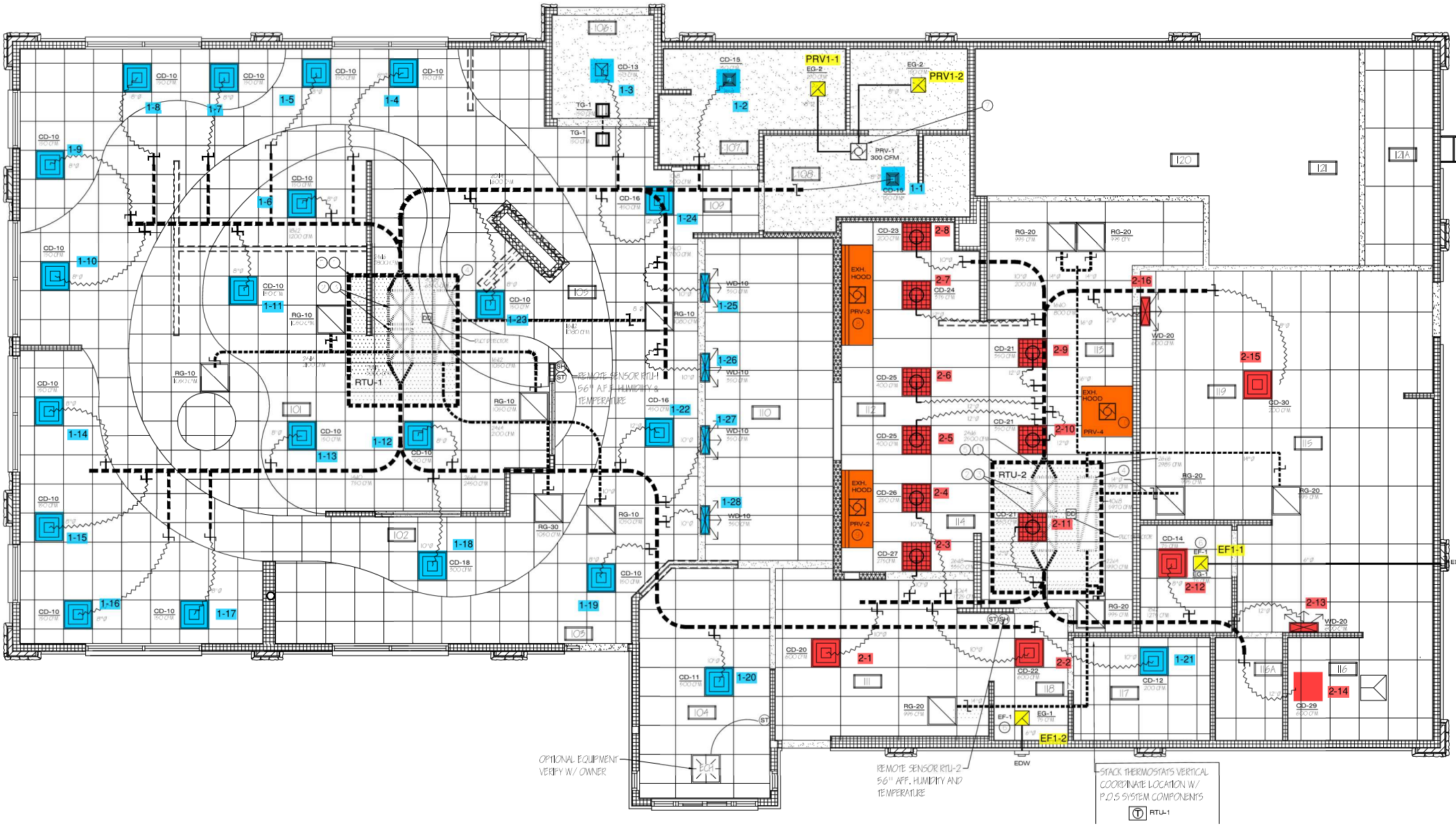
Asset: HD-3 AREA: CONDENSATE

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XD3-42-S	XD3-42-S
Serial Num	-	17488951
Type	CANOPY DOUBLE BAFFLE	CANOPY
Hood length	42	42
Hood Width	42	42

Test Data		
	Design	**Actual**
Exhaust CFM	350	339

Completed By: Chris Chesnut on 04/30/2021

Notes:


RTU-1
RTU-2
PRV1-1
PRV1-2
PRV-1
300 CFM
PRV-2
PRV-3
PRV-4
EXH. HOOD
REMOTE SENSOR RTU-1
56" A.F.F. HUMIDITY & TEMPERATURE
REMOTE SENSOR RTU-2
56" AFF. HUMIDITY AND TEMPERATURE
OPTIONAL EQUIPMENT
VERIFY W/ OWNER
STACK THERMOSTATS VERTICAL
COORDINATE LOCATION W/
P.O.S SYSTEM COMPONENTS
RTU-1
EF1-1
EF1-2
EDW
101
102
103
104
105
106
107
107A
108
109
110
111
112
113
114
115
116
116A
117
118
119
120
121
121A