



Comfort. Under control.

08-08 CULVERS - LADSON, SC

CheckList Information

Name : TECH - SITE PICTURES **Status :** Submitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

STORE FRONT	YES
RTU-1	YES
RTU-2	YES
PRV-1	YES
PRV-2	YES
PRV-3	YES
EF-1A	YES
HOOD 1	YES
HOOD 2	YES
HOOD 3	N/A
PRODIGY BOARD WIRING	-

Notes/Comments :

-



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08-08 CULVERS - LADSON, SC

CheckList Information

Name : TECH - STEP 1: INITIAL WALKTHROUGH **Status :** Submitted

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 / RTU1 NO / RTU2, SGRD3 AND SGRD4 ARE LOCATED IN DIFFERENT SPOTS THEN SHOWN ON GRD, ALSO SGRD8 IS LOCATED IN A DIFFERENT LOCATION THEN SHOWN ON PRINTS. THIS WAS DUE TO DUCTWORK BEING THE LAST THING INSTALLED IN THE CEILING AND GRILLS NOT BEING ABLE TO BE LOCATED IN THOSE POSITIONS CALLED FOR ON PRINTS
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 / RTU1 & RTU2
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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08-08 CULVERS - LADSON, SC

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	Status :	Submitted
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 / HAVE BEEN CALIBRATED AND FUNCTIONING
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 / RTU1 & RTU2
Motors are all operating below the FLA rating?	YES / RTU1 & RTU2
Are belts tight?	YES / RTU1 & RTU2
If direct drive unit is the speed controller working.	N/A
Is gas piping installed and valves turned on?	NO / VALVES ARE IN THE OFF POSITIONS
Unit free of noticeable noise and vibration	YES / RTU1 & RTU2

EF's

Rotation is correct?	YES / PRV2 & PV3
Belts are tight?	YES / PRV2 & PV3
Grease cup installed on hood fan?	YES
Hinge kit installed installed on hood fan?	YES / PRV2 & PV3
Lean grease rated fans back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	YES / PRV2 & PV3

Flex conduit is long enough so that fan can be completely tilted back?	YES / PRV2 & PV3
There is no major leakage around base of fan?	NO LEAKAGE AROUND EITHER FAN
Is the motor operating below the motor FLA rating?	YES / PRV2 & PV3
For restroom fan(s) is the back draft damper installed and can it fully open?	YES
Unit free of noticeable noise and vibration?	YES / PRV2 & PV3
The hood exhaust fans are installed in correct positions and are not switched?	YES / PRV2 & PV3

HOODS

Kitchen equipment installed in proper places?	YES / PRV2 & PV3
Can kitchen equipment be turned on for final smoke test?	NO FYERS / INICIAL STARTUP HAS NOT BEEN DONE AT THIS TIME YES / GRIDDLE
Second stage Grease Grabber filters are installed on the griddle hood?	YES / GRIDDLE HOOD

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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CheckList Information

Name : TECH - STEP 3: TEST, ADJUST AND BALANCE **Status :** Submitted

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".	N/A

Notes/Comments :



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08-08 CULVERS - LADSON, SC

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	Status :	Submitted
Assigned Organization :	National TAB	Asset :	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing	FRYER HOOD / UNABLE TO TURN EQUIPMENT ON FOR THIS SMOKE TEST. INITIAL STARTTUP HAS NOT BEEN DONE AT THIS TIME ON COOKING EQUIPMENT YES / GRIDDLE
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	08/09/2022
TAB tech name / Firm	DALE WHEELER / NTAB
Site super name / Firm	RICHARD SHADY / CAMPBELL CONSTRUCTION
Owner representative name / Firm (if Applicable)	-
Building pressure at front & back doors (All Systems On)	FRONT DOOR +0.003" / SIDE DOOR +0.006" / BACK DOOR +0.002" / ALL SYSTEMS ARE RUNNING

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 :

RTU1 / ALARM 91 WAS ON THIS ISSUE WAS FIXED PER MECHANICAL.



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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?

Picture file sent to processing team or uploaded?

Balance schedule complete and uploaded?

Prelim report generated and reviewed?

Notes/Comments :

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.

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU1

AREA: DINING

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622D00556
Model Num	LGH-240-H4B	LGH-240-H4B
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	69.75X13
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2
Num Final Filter 2	-	N/L
Final Filter Size 2	-	N/L

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	-	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208/230	208
Rated Amperage	-	13.8

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP50
Motor Bore Size	-	1 1/8
Motor Sheave SetPt	-	MINIMIZED
Fan Sheave Size	-	9 5/8
Fan Sheave Bore	-	1 3/8
Belt CL Distance	-	20 5/8
Num of Belts	-	1
Belt Size	-	BX61
Belt Alignment	-	NO

Test Data		
	Design	Actual
SF CFM	5850	5974
SF RPM	-	867
RA CFM	4100	4287
OA CFM	1800	1687
RL Voltage	-	208/207/209
RL Amperage	-	10.6/9.6/10.2
SF Rotation	-	CCW
RA Damper Position	-	2.0"
Min OA Damper Position	-	45 / 1.50" OPEN
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.450"
Fan Suction SP	-	-0.726"
Fan Discharge SP	-	0.651"
Total ESP	-	1.101"
Fan Total SP	-	1.377"

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO
Condensate Drain Installed	-	YES

Completed By: Dale Wheeler

Notes:

National TAB

Project:08-08 CULVERS - LADSON, SC

AHU/RTU



Comfort. Under control.

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	ENTRY	SD3	8"	150	1	137	173	146	97.3
SGRD2	MENS RR	SD4	8"	150	1	135	148	142	94.7
SGRD3	WOMENS RR	SD4	8"	150	1	127	146	159	106.0
SGRD4	HALL	SD1	12"	450	1	424	434	468	104.0
SGRD5	DINING	SD1	8"	150	1	135	143	141	94.0
SGRD6	DINING	SD1	8"	150	1	113	147	150	100.0
SGRD7	DINING	SD1	8"	150	1	137	148	149	99.3
SGRD8	DINING	SD1	8"	150	1	133	159	165	110.0
SGRD9	DINING	SD1	8"	150	1	136	154	164	109.3
SGRD10	DINING	SD1	8"	150	1	139	150	163	108.7
SGRD11	DINING	SD1	8"	150	1	139	162	164	109.3
SGRD12	DINING	SD1	8"	150	1	133	154	165	110.0
SGRD13	DINING	SD1	8"	150	1	139	149	150	100.0
SGRD14	DINING	SD1	8"	150	1		142	143	95.3
SGRD15	DINING	SD1	8"	150	1	136	157	165	110.0
SGRD16	DINING	SD1	8"	150	1	134	151	164	109.3
SGRD17	DINING	SD1	8"	150	1	135	145	163	108.7
SGRD18	DRINKS & CONDIMENT S	SD1	10"	300	1	291	300	285	95.0
SGRD19	ENTRY	SD1	8"	150	1	149	142	141	94.0
SGRD20	CUSTOMER ORDERING	SD1	12"	450	1	424	454	486	108.0
SGRD21	CUSTOMER SERVICE	SD1	10"	350	1	416	459	465	132.9
SGRD22	CUSTOMER SERVICE	SD1	10"	350	1	303	326	354	101.1
SGRD23	CUSTOMER SERVICE	SD1	10"	350	1	252	556	289	82.6
SGRD24	CUSTOMER SERVICE	SD1	10"	350	1	238	266	273	78.0
SGRD25	DRIVE THRU	SD1	12"	500	1	470	510	522	104.4
SGRD26	OFFICE	SD1	10"	200	1	180	184	198	99.0

Completed By: Brianna Biggs on

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU2

AREA: KITCHEN

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622D00607
Model Num	LGH-240-H4B	LGH-240-H4B
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	69.75X13
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	6150	5907
SF RPM	-	884
RA CFM	4450	4121
OA CFM	1700	1786
RL Voltage	-	206/206/206
RL Amperage	-	10.5/10.5/10.1
SF Rotation	-	CCW
RA Damper Position	-	2.0"
Min OA Damper Position	-	45% / 1.75' OPEN
Min OA Damper Type	-	ECON

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	-	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208/230	208
Rated Amperage	-	13.8

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.43"
Fan Suction SP	-	-0.789"
Fan Discharge SP	-	0.521"
Total ESP	-	0.951"
Fan Total SP	-	1.31"

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP50
Motor Bore Size	-	1 1/8
Motor Sheave SetPt	-	MINIMIZED
Fan Sheave Size	-	9 3/8
Fan Sheave Bore	-	1 1/8
Belt CL Distance	-	20 5/8
Num of Belts	-	1
Belt Size	-	BX61
Belt Alignment	-	GOOD

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

Completed By: Dale Wheeler

Notes:

National TAB

Project:08-08 CULVERS - LADSON, SC

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	SUNDAE SERVICE	SD1	12"	600	1	503	555	600	100.0
SGRD2	SUNDAE SERVICE	SD1	12"	600	1	410	440	510	85.0
SGRD3	FRYERS	SD5	10"	200	1	281	173	189	94.5
SGRD4	FRYERS	SD5	12"	375	1	229	343	370	98.7
SGRD5	FOOD PREP	SD5	12"	400	1	404	364	401	100.3
SGRD6	FOOD PREP	SD5	12"	400	1	435	367	439	109.8
SGRD7	GRIDDLE	SD5	10"	250	1	319	221	235	94.0
SGRD8	GRIDDLE	SD5	10"	275	1	315	249	267	97.1
SGRD9	EMPLOYEE RR	SD1	6"	75	1	136	62	68	90.7
SGRD10	ALCOVE	SD5	8"	125	1	315		118	94.4
SGRD11	FOOD PREP	SD5	12"	350	1	535	325	321	91.7
SGRD12	DISHWASHING	SD5	12"	350	1	119	327	347	99.1
SGRD13	DISHWASHING	SD5	12"	350	1	309	368	371	106.0
SGRD14	UTILITY	SD1	12"	600	1	435	542	542	90.3
SGRD15	DRY GOODS	SD1	12"	600	1	398	497	492	82.0
SGRD16	DRY GOODS	SD1	12"	600	1	537	623	637	106.2

Completed By: Brianna Biggs on

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: FAN - Exhaust



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Asset: EF-A1

AREA:MOP ROOM

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XCR-B80	XCR-B80
Serial Num	-	20427370
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	900	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	75	68
Fan RPM	885	675
Fan Rotation	-	CCW
Motor RPM	-	675
System SetPt	-	HIGH
RL Voltage	-	121
RL Amperage	-	0.13
Total ESP	0.125"	0.035"
Fan Inlet SP	-	-0.035"
Fan Discharge SP	-	ATM

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-1

AREA:RESTROOM

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRED-095-D	XRED-095-D
Serial Num	-	20418002
Type	DOWNBLAST	DOWNBLAST
Configuration	HORIZTONTAL	HORIZTONTAL

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	0.0667	1/10
Motor Rpm	1550	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.38
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	375	384
Fan RPM	1479	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	SETPOINT 6
RL Voltage	-	121
RL Amperage	-	0.77
Total ESP	0.5"	0.153"
Fan Inlet SP	-	-0.153"
Fan Discharge SP	-	ATM

Completed By: Dale Wheeler

Notes:

National TAB

Project:08-08 CULVERS - LADSON, SC

FAN - Exhaust



Comfort. Under control.

Diffuser Ret/Exh (GRD)

PRV-1/RESTROOM

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	MENS RR	EG1	8X8	150	1	189	158	156	104.0
EGRD2	WOMENS RR	EG1	8X8	150	1	176	164	148	98.7
EGRD3	EMPLOYEE RR	EG1	8X8	75	1	55	63	80	106.7

Completed By: Brianna Biggs on

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-2

AREA:HD1 GRIDDLE

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB-160XP-15	XRUB-160XP-15
Serial Num	-	20418004
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1500	1598
Fan RPM	2411	2586
Fan Rotation	-	CCW
Motor RPM	-	1781
RL Voltage	-	206/206/206
RL Amperage	-	4.1/4.1/3.9
Suction ESP	-	-1.13"
Discharge ESP	-	ATM
Total ESP	2.337"	1.13"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	N/L
Horsepower	1.5	1.5
Motor Rpm	1725	1760
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	4.2
Service Factor	-	1.15

Drive Data		
	Design	Actual
Motor Sheave Size	-	5.25"
Motor Bore Size	-	5/8
Motor Sheave SetPt	-	1.5 TURNS OUT
Fan Sheave Size	-	AK34
Fan Sheave Bore	-	1.0"
Belt CL Distance	-	6.50"
Num of Belts	-	1
Belt Size	-	A27

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-3

AREA:HD2 FRYERS

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB-140-7	XRUB-140-7
Serial Num	-	20418005
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1500	1408
Fan RPM	1377	1586
Fan Rotation	-	CCW
Motor RPM	-	1783
RL Voltage	-	209/209/208
RL Amperage	-	1.9/1.9/2.0
Suction ESP	-	-0.515"
Discharge ESP	-	ATM
Total ESP	1.0"	-0.515"

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

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34
Motor Bore Size	-	5/8
Motor Sheave SetPt	-	MINIMIZED
Fan Sheave Size	-	AK39
Fan Sheave Bore	-	0.75"
Belt CL Distance	-	5 3/8
Num of Belts	-	1
Belt Size	-	AP23

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XGEP-64-S	XGEP-64-S
Job / Serial Num	-	199033439
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROX.
Hood length	64"	64"
Hood Width	23"	23"

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

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	-	283
Filter2 FPM	-	229
Filter3 FPM	-	238
Filter4 FPM	-	291
Filter Ave FPM(corr)	-	260
CFM	-	1598

General		
	Design	Actual
Third Party Witness	-	RICHARD SHADY
Third Party Company	-	CAMPBELL CONSTRUCTION
Tech Witness	-	DALE WHEELER

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE
Item 2	-	N/A

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD2

AREA:FRYERS

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XXEP-83-S	XXEP-83-S
Job / Serial Num	-	19903437
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROX.
Hood length	83"	83"
Hood Width	23"	23"

Test Data Exhaust		
	Design	Actual
Filter Type	X-TRACTOR	X-TRACTOR
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	7.65	7.65
Filter1 FPM	-	198
Filter2 FPM	-	177
Filter3 FPM	-	176
Filter4 FPM	-	183
Filter5 FPM	-	188
Filter Ave FPM(corr)	-	184
CFM	-	1408

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

Completed By: Dale Wheeler

Notes:

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

General		
	Design	Actual
Third Party Witness	-	RICHARD SHADY
Third Party Company	-	CAMPBELL CONSTRUCTION
Tech Witness	-	DALE WHEELER

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU1

AREA: DINING

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622D00556
Model Num	LGH-240-H4B	LGH-240-H4B
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	69.75X13
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2
Num Final Filter 2	-	N/L
Final Filter Size 2	-	N/L

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	-	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208/230	208
Rated Amperage	-	13.8

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP50
Motor Bore Size	-	1 1/8
Motor Sheave SetPt	-	MINIMIZED
Fan Sheave Size	-	9 5/8
Fan Sheave Bore	-	1 3/8
Belt CL Distance	-	20 5/8
Num of Belts	-	1
Belt Size	-	BX61
Belt Alignment	-	NO

Test Data		
	Design	Actual
SF CFM	5850	5974
SF RPM	-	867
RA CFM	4100	4287
OA CFM	1800	1687
RL Voltage	-	208/207/209
RL Amperage	-	10.6/9.6/10.2
SF Rotation	-	CCW
RA Damper Position	-	2.0"
Min OA Damper Position	-	45 / 1.50" OPEN
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.450"
Fan Suction SP	-	-0.726"
Fan Discharge SP	-	0.651"
Total ESP	-	1.101"
Fan Total SP	-	1.377"

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO
Condensate Drain Installed	-	YES

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU2

AREA: KITCHEN

Unit Data		
	Design	Actual
MFG	LENNOX	LENNOX
Serial Num	-	5622D00607
Model Num	LGH-240-H4B	LGH-240-H4B
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	69.75X13
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	6150	5907
SF RPM	-	884
RA CFM	4450	4121
OA CFM	1700	1786
RL Voltage	-	206/206/206
RL Amperage	-	10.5/10.5/10.1
SF Rotation	-	CCW
RA Damper Position	-	2.0"
Min OA Damper Position	-	45% / 1.75' OPEN
Min OA Damper Type	-	ECON

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	-	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208/230	208
Rated Amperage	-	13.8

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.43"
Fan Suction SP	-	-0.789"
Fan Discharge SP	-	0.521"
Total ESP	-	0.951"
Fan Total SP	-	1.31"

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP50
Motor Bore Size	-	1 1/8
Motor Sheave SetPt	-	MINIMIZED
Fan Sheave Size	-	9 3/8
Fan Sheave Bore	-	1 1/8
Belt CL Distance	-	20 5/8
Num of Belts	-	1
Belt Size	-	BX61
Belt Alignment	-	GOOD

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

Completed By: Dale Wheeler

Notes:

National TAB

Project:08-08 CULVERS - LADSON, SC



Comfort. Under control.

Diffuser Ret/Exh (GRD)

PRV-1/RESTROOM

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	MENS RR	EG1	8X8	150	1	189	158	156	104.0
EGRD2	WOMENS RR	EG1	8X8	150	1	176	164	148	98.7
EGRD3	EMPLOYEE RR	EG1	8X8	75	1	55	63	80	106.7

Completed By: Brianna Biggs on

National TAB

Project:08-08 CULVERS - LADSON, SC



Comfort. Under control.

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	ENTRY	SD3	8"	150	1	137	173	146	97.3
SGRD2	MENS RR	SD4	8"	150	1	135	148	142	94.7
SGRD3	WOMENS RR	SD4	8"	150	1	127	146	159	106.0
SGRD4	HALL	SD1	12"	450	1	424	434	468	104.0
SGRD5	DINING	SD1	8"	150	1	135	143	141	94.0
SGRD6	DINING	SD1	8"	150	1	113	147	150	100.0
SGRD7	DINING	SD1	8"	150	1	137	148	149	99.3
SGRD8	DINING	SD1	8"	150	1	133	159	165	110.0
SGRD9	DINING	SD1	8"	150	1	136	154	164	109.3
SGRD10	DINING	SD1	8"	150	1	139	150	163	108.7
SGRD11	DINING	SD1	8"	150	1	139	162	164	109.3
SGRD12	DINING	SD1	8"	150	1	133	154	165	110.0
SGRD13	DINING	SD1	8"	150	1	139	149	150	100.0
SGRD14	DINING	SD1	8"	150	1		142	143	95.3
SGRD15	DINING	SD1	8"	150	1	136	157	165	110.0
SGRD16	DINING	SD1	8"	150	1	134	151	164	109.3
SGRD17	DINING	SD1	8"	150	1	135	145	163	108.7
SGRD18	DRINKS & CONDIMENTS	SD1	10"	300	1	291	300	285	95.0
SGRD19	ENTRY	SD1	8"	150	1	149	142	141	94.0
SGRD20	CUSTOMER ORDERING	SD1	12"	450	1	424	454	486	108.0
SGRD21	CUSTOMER SERVICE	SD1	10"	350	1	416	459	465	132.9
SGRD22	CUSTOMER SERVICE	SD1	10"	350	1	303	326	354	101.1
SGRD23	CUSTOMER SERVICE	SD1	10"	350	1	252	556	289	82.6
SGRD24	CUSTOMER SERVICE	SD1	10"	350	1	238	266	273	78.0
SGRD25	DRIVE THRU	SD1	12"	500	1	470	510	522	104.4
SGRD26	OFFICE	SD1	10"	200	1	180	184	198	99.0
SGRD1	SUNDAE SERVICE	SD1	12"	600	1	503	555	600	100.0
SGRD2	SUNDAE SERVICE	SD1	12"	600	1	410	440	510	85.0
SGRD3	FRYERS	SD5	10"	200	1	281	173	189	94.5
SGRD4	FRYERS	SD5	12"	375	1	229	343	370	98.7
SGRD5	FOOD PREP	SD5	12"	400	1	404	364	401	100.3
SGRD6	FOOD PREP	SD5	12"	400	1	435	367	439	109.8
SGRD7	GRIDDLE	SD5	10"	250	1	319	221	235	94.0
SGRD8	GRIDDLE	SD5	10"	275	1	315	249	267	97.1
SGRD9	EMPLOYEE RR	SD1	6"	75	1	136	62	68	90.7
SGRD10	ALCOVE	SD5	8"	125	1	315		118	94.4
SGRD11	FOOD PREP	SD5	12"	350	1	535	325	321	91.7
SGRD12	DISHWASHING	SD5	12"	350	1	119	327	347	99.1
SGRD13	DISHWASHING	SD5	12"	350	1	309	368	371	106.0
SGRD14	UTILITY	SD1	12"	600	1	435	542	542	90.3
SGRD15	DRY GOODS	SD1	12"	600	1	398	497	492	82.0
SGRD16	DRY GOODS	SD1	12"	600	1	537	623	637	106.2

RTU2/KITCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	ENTRY	SD3	8"	150	1	137	173	146	97.3
SGRD2	MENS RR	SD4	8"	150	1	135	148	142	94.7
SGRD3	WOMENS RR	SD4	8"	150	1	127	146	159	106.0
SGRD4	HALL	SD1	12"	450	1	424	434	468	104.0
SGRD5	DINING	SD1	8"	150	1	135	143	141	94.0
SGRD6	DINING	SD1	8"	150	1	113	147	150	100.0
SGRD7	DINING	SD1	8"	150	1	137	148	149	99.3
SGRD8	DINING	SD1	8"	150	1	133	159	165	110.0
SGRD9	DINING	SD1	8"	150	1	136	154	164	109.3
SGRD10	DINING	SD1	8"	150	1	139	150	163	108.7
SGRD11	DINING	SD1	8"	150	1	139	162	164	109.3
SGRD12	DINING	SD1	8"	150	1	133	154	165	110.0
SGRD13	DINING	SD1	8"	150	1	139	149	150	100.0
SGRD14	DINING	SD1	8"	150	1		142	143	95.3
SGRD15	DINING	SD1	8"	150	1	136	157	165	110.0
SGRD16	DINING	SD1	8"	150	1	134	151	164	109.3
SGRD17	DINING	SD1	8"	150	1	135	145	163	108.7
SGRD18	DRINKS & CONDIMENTS	SD1	10"	300	1	291	300	285	95.0
SGRD19	ENTRY	SD1	8"	150	1	149	142	141	94.0
SGRD20	CUSTOMER ORDERING	SD1	12"	450	1	424	454	486	108.0
SGRD21	CUSTOMER SERVICE	SD1	10"	350	1	416	459	465	132.9
SGRD22	CUSTOMER SERVICE	SD1	10"	350	1	303	326	354	101.1
SGRD23	CUSTOMER SERVICE	SD1	10"	350	1	252	556	289	82.6
SGRD24	CUSTOMER SERVICE	SD1	10"	350	1	238	266	273	78.0
SGRD25	DRIVE THRU	SD1	12"	500	1	470	510	522	104.4
SGRD26	OFFICE	SD1	10"	200	1	180	184	198	99.0
SGRD1	SUNDAE SERVICE	SD1	12"	600	1	503	555	600	100.0
SGRD2	SUNDAE SERVICE	SD1	12"	600	1	410	440	510	85.0
SGRD3	FRYERS	SD5	10"	200	1	281	173	189	94.5
SGRD4	FRYERS	SD5	12"	375	1	229	343	370	98.7
SGRD5	FOOD PREP	SD5	12"	400	1	404	364	401	100.3
SGRD6	FOOD PREP	SD5	12"	400	1	435	367	439	109.8
SGRD7	GRIDDLE	SD5	10"	250	1	319	221	235	94.0
SGRD8	GRIDDLE	SD5	10"	275	1	315	249	267	97.1
SGRD9	EMPLOYEE RR	SD1	6"	75	1	136	62	68	90.7
SGRD10	ALCOVE	SD5	8"	125	1	315		118	94.4
SGRD11	FOOD PREP	SD5	12"	350	1	535	325	321	91.7
SGRD12	DISHWASHING	SD5	12"	350	1	119	327	347	99.1
SGRD13	DISHWASHING	SD5	12"	350	1	309	368	371	106.0
SGRD14	UTILITY	SD1	12"	600	1	435	542	542	90.3
SGRD15	DRY GOODS	SD1	12"	600	1	398	497	492	82.0
SGRD16	DRY GOODS	SD1	12"	600	1	537	623	637	106.2

Completed By: Brianna Biggs on

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-A1

AREA:MOP ROOM

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XCR-B80	XCR-B80
Serial Num	-	20427370
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	900	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	75	68
Fan RPM	885	675
Fan Rotation	-	CCW
Motor RPM	-	675
System SetPt	-	HIGH
RL Voltage	-	121
RL Amperage	-	0.13
Total ESP	0.125"	0.035"
Fan Inlet SP	-	-0.035"
Fan Discharge SP	-	ATM

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-1

AREA: RESTROOM

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRED-095-D	XRED-095-D
Serial Num	-	20418002
Type	DOWNBLAST	DOWNBLAST
Configuration	HORIZTONTAL	HORIZTONTAL

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	0.0667	1/10
Motor Rpm	1550	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.38
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	375	384
Fan RPM	1479	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	SETPOINT 6
RL Voltage	-	121
RL Amperage	-	0.77
Total ESP	0.5"	0.153"
Fan Inlet SP	-	-0.153"
Fan Discharge SP	-	ATM

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-2

AREA:HD1 GRIDDLE

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB-160XP-15	XRUB-160XP-15
Serial Num	-	20418004
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1500	1598
Fan RPM	2411	2586
Fan Rotation	-	CCW
Motor RPM	-	1781
RL Voltage	-	206/206/206
RL Amperage	-	4.1/4.1/3.9
Suction ESP	-	-1.13"
Discharge ESP	-	ATM
Total ESP	2.337"	1.13"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	N/L
Horsepower	1.5	1.5
Motor Rpm	1725	1760
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	4.2
Service Factor	-	1.15

Drive Data		
	Design	Actual
Motor Sheave Size	-	5.25"
Motor Bore Size	-	5/8
Motor Sheave SetPt	-	1.5 TURNS OUT
Fan Sheave Size	-	AK34
Fan Sheave Bore	-	1.0"
Belt CL Distance	-	6.50"
Num of Belts	-	1
Belt Size	-	A27

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: PRV-3

AREA:HD2 FRYERS

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XRUB-140-7	XRUB-140-7
Serial Num	-	20418005
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1500	1408
Fan RPM	1377	1586
Fan Rotation	-	CCW
Motor RPM	-	1783
RL Voltage	-	209/209/208
RL Amperage	-	1.9/1.9/2.0
Suction ESP	-	-0.515"
Discharge ESP	-	ATM
Total ESP	1.0"	-0.515"

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

Drive Data		
	Design	Actual
Motor Sheave Size	-	VP34
Motor Bore Size	-	5/8
Motor Sheave SetPt	-	MINIMIZED
Fan Sheave Size	-	AK39
Fan Sheave Bore	-	0.75"
Belt CL Distance	-	5 3/8
Num of Belts	-	1
Belt Size	-	AP23

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XGEP-64-S	XGEP-64-S
Job / Serial Num	-	199033439
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROX.
Hood length	64"	64"
Hood Width	23"	23"

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

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	-	283
Filter2 FPM	-	229
Filter3 FPM	-	238
Filter4 FPM	-	291
Filter Ave FPM(corr)	-	260
CFM	-	1598

General		
	Design	Actual
Third Party Witness	-	RICHARD SHADY
Third Party Company	-	CAMPBELL CONSTRUCTION
Tech Witness	-	DALE WHEELER

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE
Item 2	-	N/A

Completed By: Dale Wheeler

Notes:

National TAB

Project: 08-08 CULVERS - LADSON, SC

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD2

AREA:FRYERS

Unit Data		
	Design	Actual
MFG	ACCUREX	ACCUREX
Model Num	XXEP-83-S	XXEP-83-S
Job / Serial Num	-	19903437
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROX.
Hood length	83"	83"
Hood Width	23"	23"

Test Data Exhaust		
	Design	Actual
Filter Type	X-TRACTOR	X-TRACTOR
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	7.65	7.65
Filter1 FPM	-	198
Filter2 FPM	-	177
Filter3 FPM	-	176
Filter4 FPM	-	183
Filter5 FPM	-	188
Filter Ave FPM(corr)	-	184
CFM	-	1408

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

Completed By: Dale Wheeler

Notes:

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

General		
	Design	Actual
Third Party Witness	-	RICHARD SHADY
Third Party Company	-	CAMPBELL CONSTRUCTION
Tech Witness	-	DALE WHEELER