

Report By:

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



**Report: FINAL TAB REPORT
Function: Test, Adjust, & Balance
Date: 11/16/2022**

**PROJECT
11-14 PENN STATION - AMHERST, OH**

2900 COOPER FOSTER PARK RD

LORAIN , OH 44053

Client

C&T DESIGN
4025 PORT UNION RD.
FAIRFIELD, OH 45014

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

Table Of Contents

Section	Page #
Summary	3
Balance Schedule	4
Site Pictures	5
Checklist Data	10
AHU/RTU	12
FAN - Exhaust	16
FAN - Supply	21
Kitchen Hood Type I	22
GRD Layout	25

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) w/ Diffusers

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. . Any EF's that fell outside of this tolerance is noted throughout the report.

MUA (Make Up Air Unit) w/ PSP

Total flow for the MAU (Make-up Air Unit) unit was measured by readings taken at the discharge of the hood's perforated supply plenum. Readings taken with a velocity matrix were averaged and multiplied by a manufacturer's corrected area. Adjustments to the fan speed were made in order to bring the unit to within design tolerance. Any MUA's that fell outside of this tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles

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.

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	3000	2984	2250	2251	750	733	25.0%	24.6%						
RTU-2	KITCHEN	3000	2973	2250	2229	750	744	25.0%	25.0%						
MUA-1	HD1 & HD3									1650	1695				
EF-1	HD1 GRILL											1120	1121		
EF-2	HD2 OVEN											700	618		
EF-3	HD3 FRYER											833	831		
EF-4	WOMENS RR													75	79
EF-5	MENS RR													150	82
TOTALS		6000	5957	4500	4480	1500	1477			1650	1695	2653	2570	225	161

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3150	3172
TOTAL EXHAUST	2878	2731
NET AIRFLOW	272	441

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.002
SIDE	-
REAR	0.005
AVERAGE	0.0035

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:



Comfort. Under control.

11-14 PENN STATION - AMHERST, OH

CheckList Information

Name : TECH - SITE PICTURES **Status :** Submitted
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB

CheckList Item Details

STORE FRONT



FuseIT22736aa17ffe4f4...

RTU-1



FuseITca6dc5b64b524fc...



FuseIT6d4aae4056e6435...

RTU-2



FuseITcd12736c0954472...



FuseIT467ba8b181ac47f...

EF-1



FuseITb1c07b9c871e4d0...



FuseIT161ed0cb5965491...

EF-2



FuseIT112df552322145e...



FuseITbba54a605f6a4df...

EF-3

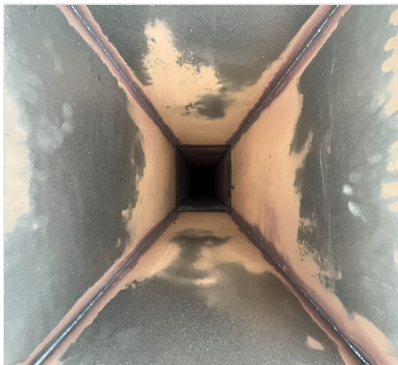


FuseIT40450e94589649e...



FuseIT7cb1befc853044d...

EF-4



FuseITaa653c167ccf4ff...



FuseITf4bd97372d044bf...



File.jpeg

EF-5

MAU-1



FuseIT316dbb1f83144da...



FuseIT32b1c95bb43e492...

HOOD-1



FuseIT8cf840b9ed55468...

HOOD-2



FuseIT9366ce3b4eab40e...

HOOD-2



FuseITef229c337bd34da...

Notes/Comments :



Comfort. Under control.

11-14 PENN STATION - AMHERST, OH

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?	ALL DIFFUSERS AND GRILLES ARE INSTALLED AND MATCH DESIGN
All hood filters installed and accounted for?	ALL HOOD FILTERS ARE ACCOUNTED FOR
Hoods are wired and have power?	HOODS ARE WIRED AND HAVE POWER
Hood is free of alarms?	HOOD IS FREE OF ALARMS
Thermostats have power?	STATS HAVE POWER
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

Notes/Comments :



Comfort. Under control.

11-14 PENN STATION - AMHERST, OH

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?	ECONIMIZERS ARE ASSEMBLED AND FUNCTIONAL
DCV Max damper opening position is set to minimum?	NA
Free cooling enthalpy set point set for lowest setting (Typically "D")	NA
Motors are all operating below the FLA rating?	MOTORS ARE BELOW FLA
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 PIPING INSTALLED, VAVLES TURNED ON
Unit free of noticeable noise and vibration	UNITS ARE FREE OF VIBRATION

EF's

Rotation is correct?	ROTATION IS CORRECT
Belts are tight?	DIRECT DRIVE
Grease cup installed on hood fan?	GREASE CUPS ARE INSTALLED
Hinge kit installed installed on hood fan?	HINGE KITS INSTALLED
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	GREASE DUCT INSTALLATION ADEQUATE

Flex conduit is long enough so that fan can be completely tilted back?	FLEX CONDUIT IS LONG ENOUGH
There is no major leakage around base of fan?	NO MAJOR LEAKAGE AROUND BASE OF FAN
Is the motor operating below the motor FLA rating?	MOTOR BELOW FLA
For restroom fan(s) is the back draft damper installed and can it fully open?	NA
Unit free of noticeable noise and vibration?	FREE OF NOISE AND VIBRATION
MUA	
Rotation is correct?	ROTATION IS CORRECT
Gas piping is installed and valves are in on position?	GAS PIPING INSTALLED, VALVE IN ON POSITION
Heater tested and is functional?	HEATER TESTED AND FUNCTIONAL
Internal motorized damper is fully opening?	FULLY OPENING
Motor is operating below the FLA rating?	MOTOR BELOW FLA
Unit free of noticeable noise and vibration?	NO NOISE OR VIBRATION
HOODS	
Kitchen equipment installed in proper places?	EQUIPMENT INSTALLED IN PROPER PLACE
Can kitchen equipment be turned on for final smoke test?	KITCHEN EQUIPMENT TURNED ON
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

Notes/Comments :



Comfort. Under control.

11-14 PENN STATION - AMHERST, OH

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?	SPACE FREE OF DRAFTING
Is space comfortable in all areas?	COMFORTABLE IN ALL AREAS
Is the space free of ventilation noise?	FREE OF VENTILATION NOISE
If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".	NA

Notes/Comments :



Comfort. Under control.

11-14 PENN STATION - AMHERST, OH

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	GRIDDLE/FRYER
List smoke candle type used	45 SEC SMOKE EMITTER
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%

WITNESS

Date test was completed	11/15/2022
TAB tech name / Firm	AUSTIN MCFALL/NATIONAL TAB
Site super name / Firm	
Owner representative name / Firm (if Applicable)	NA/NA
Building pressure at front & back doors (All Systems On)	FRONT:0.002"//BACK:0.005"

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
---	-----

PROGRAM THERMOSTATS

Occupied 7:15AM-10:15PM: 68 Heat/72 Cool (NOTE: 3 degree MAX setback)	PROGRAM SET
---	-------------

Notes/Comments :

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU1

AREA:DINING

Unit Data		
	Design	Actual
MFG	LUXAIRE	LUXAIRE
Serial Num	-	N2H1413923
Model Num	ZF09018R2A1BAA1A2	ZF09018R2A1BAA1A2
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	22.5X23
Num Final Filter 1	-	4
Final Filter Size 1	-	16X24X2

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	-	3.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.3

Drive Data		
	Design	Actual
Motor Sheave Size	-	VM50
Motor Bore Size	-	0.875"
Motor Sheave SetPt	-	3 TURNS OPEN
Fan Sheave Size	-	6"
Fan Sheave Bore	-	1"
Belt CL Distance	-	17.5"
Num of Belts	-	1
Belt Size	-	A49
Belt Alignment	-	GOOD

Test Data		
	Design	Actual
SF CFM	3000	2984
RA CFM	1250	2251
OA CFM	750	733
RL Voltage	-	212/208/209
RL Amperage	-	6.4/4.8/7.2
SF Rotation	-	CW
Min OA Damper Position	-	0.75"
Min OA Damper Type	-	MANUAL

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.44"
Fan Suction SP	-	-0.61"
Fan Discharge SP	-	0.55"
Total ESP	-	0.99"
Fan Total SP	-	1.16"

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

Completed By: Austin McFall

Notes:

National TAB

Project:11-14 PENN STATION - AMHERST, OH

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	NA	10"	400	1	487	439	393	98.3
SGRD2	ENTRY	NA	10"	400	1	516	482	403	100.8
SGRD3	DINING	NA	10"	300	1	441	394	298	99.3
SGRD4	DINING	NA	10"	350	1	390	360	344	98.3
SGRD5	DINING	NA	10"	350	1	303	288	335	95.7
SGRD6	DINING	NA	10"	350	1	327	293	329	94.0
SGRD7	DINING	NA	10"	350	1	389	375	354	101.1
SGRD8	WOMENS RR	NA	-	70	1	80	71	73	104.3
SGRD9	MENS RR	NA	-	130	1	173	157	135	103.8
SGRD10	PREP AREA	NA	10"	300	1	314	280	320	106.7

Completed By: Brianna Biggs on

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU2

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	LUXAIRE	LUXAIRE
Serial Num	-	N2N1851087
Model Num	ZF09018R2A1BAA1A2	ZF09018R2A1BAA1A2
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	22.5X23
Num Final Filter 1	-	4
Final Filter Size 1	-	16X24X2

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56Hz
Horsepower	-	3.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.3

Drive Data		
	Design	Actual
Motor Sheave Size	-	VM50
Motor Bore Size	-	0.875"
Motor Sheave SetPt	-	3 TURNS OPEN
Fan Sheave Size	-	6"
Fan Sheave Bore	-	1"
Belt CL Distance	-	17.5"
Num of Belts	-	1
Belt Size	-	A49
Belt Alignment	-	GOOD

Test Data		
	Design	Actual
SF CFM	3000	2973
RA CFM	1450	2229
OA CFM	750	744
RL Voltage	-	209/210/211
RL Amperage	-	5.5/5.1/4.4
SF Rotation	-	CW
Min OA Damper Position	-	0.875"
Min OA Damper Type	-	MANUAL

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.46"
Fan Suction SP	-	-0.59"
Fan Discharge SP	-	0.49"
Total ESP	-	0.95"
Fan Total SP	-	1.08"

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

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

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	PREP AREA	24X24	10"	350	1	314	249	321	91.7
SGRD2	PREP AREA	24X24	10"	350	1	457	365	335	95.7
SGRD3	KITCHEN	24X24	10"	300	1	505	413	320	106.7
SGRD4	SERVING	4X48	10"	350	1	474	382	366	104.6
SGRD5	SERVING	4X48	10"	350	1	489	402	349	99.7
SGRD6	SERVING	4X48	10"	350	1	469	396	355	101.4
SGRD7	HOOD 1	ACPSP	12"	600	1	655	565	571	95.2
SGRD8	HOOD 3	ACPSP	12"	350	1	406	321	356	101.7

Completed By: Brianna Biggs on

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF1

AREA:HD1 GRILL

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	5493816
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO
Horsepower	0.750	0.75
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	1120	1121
Fan RPM	1215	1216
Fan Rotation	-	CCW
Motor RPM	-	1800
System SetPt	-	55%
RL Voltage	-	116
RL Amperage	-	5.2
Total ESP	1.150"	0.85"
Fan Inlet SP	-	-0.85"
Fan Discharge SP	-	ATM

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF2

AREA:HD2 OVEN

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU33HFA	DU33HFA
Serial Num	-	5493816
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO
Horsepower	0.333	0.33
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.3
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	700	618
Fan RPM	1360	1201
Fan Rotation	-	CCW
Motor RPM	-	1800
System SetPt	-	65%
RL Voltage	-	116
RL Amperage	-	3.4
Total ESP	0.600"	0.36"
Fan Inlet SP	-	-0.36"
Fan Discharge SP	-	ATM

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF3

AREA:HD3 FRYER

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	5493816
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO
Horsepower	0.750	0.75
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	833	831
Fan RPM	1144	1143
Fan Rotation	-	CCW
Motor RPM	-	1800
System SetPt	-	59%
RL Voltage	-	116
RL Amperage	-	4.9
Total ESP	1.150"	0.55"
Fan Inlet SP	-	-0.55"
Fan Discharge SP	-	ATM

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF4

AREA:WOMENS RR

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	120 SERIES
Type	-	CENTRIFUGAL
Configuration	-	CEILING

Test Data		
	Design	Actual
CFM	75	79
Fan Rotation	-	CCW
Motor RPM	-	1550
RL Voltage	-	166
RL Amperage	-	0.12

Motor Data		
	Design	Actual
Motor MFG	-	QUEACE
Motor Rpm	-	1550
Phase	-	1
Voltage (rated)	-	116
Amperage (rated)	-	0.19
Service Factor	-	1.0

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF5

AREA:MENS RR

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	120 SERIES
Type	-	CENTRIFUGAL
Configuration	-	CEILING

Test Data		
	Design	Actual
CFM	150	82
Fan Rotation	-	CCW
Motor RPM	-	1550
RL Voltage	-	116
RL Amperage	-	0.15

Motor Data		
	Design	Actual
Motor MFG	-	QUEACE
Motor Rpm	-	1550
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.19
Service Factor	-	1.0

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: FAN - Supply



Comfort. Under control.

Asset: MAU1

AREA:HOOD 1 / HOOD 2

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1-D.250-15D	A1-D.250-15D
Serial Num	-	5493816
Type	MAU	MAU
Configuration	HORIZONTAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	NEMA
Frame	-	145T
Horsepower	1.5	1.5
Motor Rpm	-	1740
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	4.03
Service Factor	-	1.15

Gas Heat		
	Design	Actual
Heater Operates (y/n)	-	YES
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60
Air Flow Switch SP Actual	-	0.269"

Test Data		
	Design	Actual
CFM	1650	1695
SF RPM	1855	1905
Motor RPM	-	1740
SF System SetPt	-	40.4 HZ
RL Voltage	-	209/210/210
RL Amperage	-	2.2

General		
	Design	Actual
Fan Rotation Correct	-	CORRECT

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD1

AREA:GRILL

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650 BD-2 246 ACPSP	3650 BD-2 246 ACPSP
Job / Serial Num	-	5493816
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROX
Hood length	72"	72"
Hood Width	36"	36"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	72"	72"

Test Data Supply		
	Design	Actual
Total AK Area	7	7.0
Kv factor (Vel)	0.89"	0.87
Num of Readings	-	6
Reading1 FPM	-	159
Reading2 FPM	-	168
Reading3 FPM	-	175
Reading4 FPM	-	172
Reading5 FPM	-	187
Reading6 FPM	-	201
Ave FPM(corr)	-	177
CFM	1000	1078

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	4	4
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	6.48	6.48
Filter1 FPM	-	188
Filter2 FPM	-	166
Filter3 FPM	-	169
Filter4 FPM	-	168
Filter Ave FPM(corr)	-	173
CFM	1120	1121

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD2

AREA:OVEN

Unit Data

	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	4412 PS-OVN	4412 PS-OVN
Job / Serial Num	-	5493816
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROX
Hood length	21.25	21.25"
Hood Width	44"	44"

Test Data Exhaust

	Design	Actual
Filter Type	BAFFLE	BAFFLE
Filter Size 1	20X10	20X10
Filter Qty 1	2	2
Filter AK factor size 1	-	1.25
Filter Total AK Area	-	2.50
Filter1 FPM	-	239
Filter2 FPM	-	255
Filter Ave FPM(corr)	-	247
CFM	700	618

Cooking Equipment

	Design	Actual
Item 1	-	OVEN

Completed By: Austin McFall

Notes:

National TAB

Project: 11-14 PENN STATION - AMHERST, OH

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD3

AREA:FRYERS

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650 BD-2 246 ACPSP	3650 BD-2 246 ACPSP
Job / Serial Num	-	5493816
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROX
Hood length	72"	50"
Hood Width	36"	36"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	50"	50"

Test Data Supply		
	Design	Actual
Total AK Area	4.86	4.86
Kv factor (Vel)	0.89	0.87
Num of Readings	-	4
Reading1 FPM	-	140
Reading2 FPM	-	143
Reading3 FPM	-	136
Reading4 FPM	-	166
Ave FPM(corr)	-	146
CFM	650	617

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	20X16	16X16
Filter Qty 1	2	3
Filter AK factor size 1	2.08	1.62
Filter Total AK Area	4.16	4.86
Filter1 FPM	-	156
Filter2 FPM	-	182
Filter3 FPM	-	175
Filter Ave FPM(corr)	-	171
CFM	833	831

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

Completed By: Austin McFall

Notes:

