

Report By:

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



Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 07/18/2023

PROJECT
06-26-23 FREDDY'S - POWELL, TN

NEED ADDRESS

POWELL, TN

Client

RKS Ventures, Inc.
9340 E Central Ave
Suite A
Wichita, KS 67206

National TAB

Project: 06-26-23 FREDDY'S - POWELL, TN

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- TECH - STEP 3: TEST, ADJUST AND BALANCE
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06-26-23 FREDDY'S - POWELL, TN

CheckList Information

Name : TECH - SITE PICTURE **Status :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 06/29/2023 - Brianna Biggs - National TAB

CheckList Item Details

STORE FRONT

Comment:



StoreFront
06/29/2023

RTU-1

Comment:



Rtu1
06/29/2023

RTU-2

Comment:



Rtu2(1)
06/29/2023

KEF-1

Comment:



Kef1
06/29/2023

KEF-2

Yes

Comment:



Kef2
06/29/2023

EF-3

Yes

Comment:



Ef3(1)
06/29/2023

MUA-1

Yes

Comment:

HOOD-1

Yes

Comment:



Hood1
06/29/2023

HOOD-2

Yes

Comment:



Hood2
06/29/2023



06-26-23 FREDDY'S - POWELL, TN

CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/29/2023 - Brianna Biggs - National TAB

Completed Date :

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design? Yes

Comment:

All hood filters installed and accounted for? Yes

Comment:

Hoods are wired and have power? Yes

Comment:

Hood is free of alarms? Yes

Comment:

Thermostats have power? Yes

Comment:

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

Comment:

Yes



06-26-23 FREDDY'S - POWELL, TN

CheckList Information

Name : TECH - STEP 2: UNIT DATA AND EVAL **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/29/2023 - Brianna Biggs - 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? Yes

Comment:

DCV Max damper opening position is set to minimum? Yes

Comment:

Free cooling enthalpy set point set for lowest setting (Typically "D") Yes

Comment:

Motors are all operating below the FLA rating? Yes

Comment:

Are belts tight?

Comment:

Yes

If direct drive unit is the speed controller working.

Comment:

Yes

Is gas piping installed and valves turned on?

Yes

Comment:

Unit free of noticeable noise and vibration

Yes

Comment:

EF's

Rotation is correct?

Yes

Comment:

Belts are tight?

Comment:

Yes

Grease cup installed on hood fan?

Yes

Comment:

Hinge kit installed installed on hood fan?

Yes

Comment:

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

Yes

Comment:

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

Yes

Comment:

There is no major leakage around base of fan?

Yes

Comment:

Is the motor operating below the motor FLA rating?

Yes

Comment:

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

Yes

Comment:

Unit free of noticeable noise and vibration?

Yes

Comment:

MUA

Rotation is correct?

Yes

Comment:

Gas piping is installed and valves are in on position?

Yes

Comment:

Heater tested and is functional?

Yes

Comment:

Internal motorized damper is fully opening?

Yes

Comment:

Motor is operating below the FLA rating?

Yes

Comment:

Unit free of noticeable noise and vibration?

Yes

Comment:

HOODS

Kitchen equipment installed in proper places?

Yes

Comment:

Can kitchen equipment be turned on for final smoke test?

Yes

Comment:

Griddle is completely centered underneath hood?

Yes

Comment:

DOCUMENTATION

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

Yes

Comment:

PICTURES TAKEN OF:

All Issues

Yes

Comment:

Each Piece of equipment

Yes

Comment:

Each Hood

Yes

Comment:

Front of Store

Yes

Comment:



06-26-23 FREDDY'S - POWELL, TN

CheckList Information

Name : TECH - STEP 3: TEST, ADJUST AND BALANCE **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 06/29/2023 - Brianna Biggs - 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? Yes

Comment:

Is space comfortable in all areas? Yes

Comment:

Is the space free of ventilation noise? Yes

Comment:

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

Comment:

NA



06-26-23 FREDDY'S - POWELL, TN

CheckList Information

Name : TECH - STEP 4: FINAL TESTS **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/29/2023 - Brianna Biggs - National TAB

Completed Date :

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

Griddle, fryer

List smoke candle type used

Comment:

45 SECOND

Smoke test capture - Perimeter of hood

Comment:

YES

Smoke test capture - Top of cooking surface

Comment:

YES

WITNESS

Date test was completed

06/28/2023

Comment:

TAB tech name / Firm

Comment:

SERGIO DEL TORO

Site super name / Firm

Comment:

JAMES

Owner representative name / Firm (if Applicable)

Comment:

NA

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

Comment:

Front 0.001 Side 0.008 Rear -0.001

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?

Yes

Comment:

Thermostats Schedules: Program all thermostats to following settings:

All three thermostats have correct time/date? (if not set correctly)

Yes

Comment:

Occupied Time: 8am-11:55pm

Yes

Comment:

Occupied Fan ON

Yes

Comment:

Occupied cooling 74

Yes

Comment:

Occupied heating 68

Yes

Comment:

Unoccupied Time 11:55pm-8am

Yes

Comment:

Unoccupied Fan Auto

Yes

Comment:

Unoccupied cooling 79

Yes

Comment:

Unoccupied heating 63

Yes

Comment:

Set a Partial Screen Lock for Thermostats (i.e., make sure temperature is adjustable but not schedule)

Yes

Comment:

Password is set to 999 for Partial Screen Lock?

Yes

Comment:

RTU Economizers

Note: These instructions are for Lennox units. There are similar settings for other OEMs. Call office for assistance if needed.

Enthalpy is set to "D" for all three units

No

Comment:

"DCV Set" dials turned all the way to the left (counter clockwise)

No

Comment:

"DCV Max" dials turned all the way to the left (counter clockwise)

No

Comment:

National TAB

Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: AHU/RTU



Asset: RTU1

AREA:

Unit Data			Test Data		
	Design	Actual		Design	Actual
MFG	Lenox	TRANE	SF CFM	3000	2880
Serial Num	-	223210079D	SF RPM	-	940
Model Num	LGH092	YHD150G3RHD1AH0B10000B000000000	RA CFM	2700	2576
Type	-	RTU	OA CFM	300	304
Configuration	-	VERTICAL	RL Voltage	-	207.4/205.6/206.9V
Num OA Filters 1	-	1	RL Amperage	-	1.7/1.7/1.9A
OA Filter Size 1	-	36.5X15	SF Rotation	-	CORRECT
Num Final Filter 1	-	4	RA Damper Position	-	89%
Final Filter Size 1	-	20X25X2	Min OA Damper Position	-	11%
			Min OA Damper Type	-	OPPOSED BLADE
			OA Enthalpy Setpt	-	E

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	2	2.75
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	208	208V
Rated Amperage	-	7.30A

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.76"
Fan Suction SP	-	-0.93"
Fan Discharge SP	-	0.14"
Total ESP	1.0	0.90"
Fan Total SP	-	1.07"

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

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Project:06-26-23 FREDDY'S - POWELL, TN

AHU/RTU



Diffuser Supply (GRD)

RTU1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
AHU2-SGRD1	Kitchen	SD-2	10"	300	1	437	328	328	109.3
AHU2-SGRD2	Kitchen	ACPSP	8"	505	7.83	923	553	553	109.5
AHU2-SGRD3	Kitchen	SD-2	10"	300	1	253	228	228	76.0
AHU2-SGRD4	Kitchen	SD-5	6"	95	1	92	87	75	78.9
AHU2-SGRD5	Kitchen	SD-2	10"	295	1	322	266	266	90.2
AHU2-SGRD6	Kitchen	SD-2	10"	295	1	322	269	269	91.2
AHU2-SGRD7	Kitchen	SD-2	10"	300	1	322	272	272	90.7
AHU2-SGRD8	Kitchen	SD-2	10"	300	1	322	274	274	91.3
AHU2-SGRD9	Kitchen	ACPSP	8"	309	4.35	604	341	341	110.4
AHU2-SGRD10	Kitchen	SD-2	10"	300	1	328	274	274	91.3
Total				2999		3925	2892	2880	96.03%

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Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: AHU/RTU



Asset: RTU2

AREA:

Unit Data			Test Data		
	Design	Actual		Design	Actual
MFG	Lenox	TRANE	SF CFM	4850	4721
Serial Num	-	223210168L	SF RPM	-	NA
Model Num	LGH150	YHC092F3RMA27H0B10000B0000000D0	RA CFM	3850	3801
Type	-	RTU	OA CFM	1000	920
Configuration	-	VERTICAL	RL Voltage	-	208.2/206.8/207.7V
Num OA Filters 1	-	1	RL Amperage	-	6.7/6.7/6.8A
OA Filter Size 1	-	60X17	SF Rotation	-	CORRECT
Num Final Filter 1	-	4	RA Damper Position	-	81%
Final Filter Size 1	-	20X20X2	Min OA Damper Position	-	19%
Num Final Filter 2	-	4	Min OA Damper Type	-	OPPOSED BLADE
Final Filter Size 2	-	20X25X2	OA Enthalpy Setpt	-	E

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	5	3
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	10.6A

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.36"
Fan Suction SP	-	-0.52"
Fan Discharge SP	-	0.18"
Total ESP	1.0	0.54"
Fan Total SP	-	0.70"

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.5"
Motor Bore Size	-	3/4"
Motor Sheave SetPt	-	NA
Fan Sheave Size	-	10.5"
Fan Sheave Bore	-	1"
Belt CL Distance	-	22"
Num of Belts	-	1
Belt Size	-	BX68
Belt Alignment	-	CORRECT

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

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Project:06-26-23 FREDDY'S - POWELL, TN

AHU/RTU



Diffuser Supply (GRD)

RTU2/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
AHU1-SGRD1	Dining	SD-1	12"	500	1	516	519	519	103.8
AHU1-SGRD2	Dining	SD-1	12"	500	1	472	475	475	95.0
AHU1-SGRD3	Dining	SD-1	12"	425	1	433	428	428	100.7
AHU1-SGRD4	Dining	SD-1	12"	425	1	365	394	394	92.7
AHU1-SGRD5	Dining	SD-1	12"	500	1	386	453	453	90.6
AHU1-SGRD6	Dining	SD-1	12"	500	1	400	471	471	94.2
AHU1-SGRD7	Dining	SD-1	12"	425	1	419	419	419	98.6
AHU1-SGRD8	Dining	SD-1	12"	500	1	428	468	468	93.6
AHU1-SGRD9	Dining	SD-1	12"	425	1	450	447	447	105.2
AHU1-SGRD10	Dining	SD-1	12"	500	1	486	486	486	97.2
AHU1-SGRD11	Dining	SD-5	10"	50	1	103	54	54	108.0
AHU1-SGRD12	Dining	SD-5	10"	100	1	115	107	107	107.0
Total				4850		4573	4721	4721	97.34%

Completed By: Sergio Del Toro on 06/28/2023

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Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: FAN - Exhaust



Asset: EF1

AREA:

Unit Data		
	Design	Actual
MFG	Cook	COOK
Model Num	GC-146	GC-146
Serial Num	-	5266912
Type	Ceiling	CEILING
Configuration	Vertical	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	S&P
Frame	-	NA
Horsepower	30.3W	13W
Motor Rpm	-	NA
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	NA
Service Factor	-	NA

Test Data		
	Design	Actual
CFM	75	68
Fan RPM	900	NA
Fan Rotation	-	CORRECT
Motor RPM	-	NA
System SetPt	-	SETTING 2
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.25	0.11
Fan Inlet SP	-	-0.11"
Fan Discharge SP	-	ATM

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National TAB

Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: FAN - Exhaust



Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	Cook	COOK
Model Num	GC-168	GC-168
Serial Num	-	5266912
Type	Ceiling	CEILING
Configuration	Vertical	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	S&P
Frame	-	NA
Horsepower	50.4W	13W
Motor Rpm	-	NA
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	NA
Service Factor	-	NA

Test Data		
	Design	Actual
CFM	150	142
Fan RPM	1099	NA
Fan Rotation	-	CORRECT
Motor RPM	-	NA
System SetPt	-	SETTING 3
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.25	0.17"
Fan Inlet SP	-	-0.17"
Fan Discharge SP	-	ATM

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National TAB

Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: FAN - Exhaust



Asset: KEF1

AREA:

Unit Data		
	Design	Actual
MFG	CaptiveAire	CAPTIVEAIRE
Model Num	CASRE18DD	CASRE18DD
Serial Num	-	5266912
Type	UTILITY	UTILITY
Configuration	Vertical	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	145T
Horsepower	1.000	1
Motor Rpm	-	1150
Phase	3	3
Voltage (rated)	208	230V
Amperage (rated)	-	3.44A
Service Factor	-	1.15

Test Data		
	Design	Actual
CFM	1600	1644
Fan RPM	1105	NA
Fan Rotation	-	CORRECT
Motor RPM	-	NA
System SetPt	-	63.7HZ
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	1.400	0.92"
Fan Inlet SP	-	-0.92"
Fan Discharge SP	-	ATM

National TAB

Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: FAN - Exhaust



Asset: KEF2

AREA:

Unit Data		
	Design	Actual
MFG	CaptiveAire	CAPTIVEAIRE
Model Num	DU50HFA	DU50HFA
Serial Num	-	5266912
Type	Upblast/Ceiling	UPBLAST
Configuration	Vertical	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	NA
Horsepower	0.500	1/2
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115V
Amperage (rated)	-	6.3A
Service Factor	-	NA

Test Data		
	Design	Actual
CFM	775	787
Fan RPM	1532	NA
Fan Rotation	-	CORRECT
Motor RPM	-	NA
System SetPt	-	59%
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	1250	0.37
Fan Inlet SP	-	-0.37"
Fan Discharge SP	-	ATM

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National TAB

Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: FAN - Supply



Asset: MUA1

AREA:

Unit Data		
	Design	Actual
MFG	CaptiveAire	CAPTIVEAIRE
Model Num	A1-D.250-15D-MPU	A1-D.250-15D-MPU
Serial Num	-	5266912
Type	MUA	MUA
Configuration	Vertical	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	145T
Horsepower	3.000	3
Motor Rpm	-	3480
Phase	3	3
Voltage (rated)	208	230V
Amperage (rated)	-	7.64A
Service Factor	-	1.15

Gas Heat		
	Design	Actual
Heater Operates (y/n)	-	Y
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60
Air Flow Switch SP Actual	-	0.41"

Test Data		
	Design	Actual
CFM	1900	1755
SF RPM	2176	NA
Motor RPM	-	NA
SF System SetPt	-	39.3HZ
RL Voltage	-	159
RL Amperage	-	NA
Total ESP	-	0.55"
Fan Discharge SP	-	0.55"

General		
	Design	Actual
Fan Rotation Correct	-	YES

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Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:

Unit Data		
	Design	Actual
MFG	CaptiveAire	CAPTIVEAIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2-ACPSP-F
Job / Serial Num	-	5266912
Type	Canopy	TYPE I CANOPY
Hood length	96"	108"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	12"
Supply Plenum Length	108"	108"

Test Data Exhaust		
	Design	Actual
Filter Type	Captrate Solo	CAPTRATE SOLO
Filter Size 1	16x16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	8.1	8.1
Filter1 FPM	-	183
Filter2 FPM	-	203
Filter3 FPM	-	225
Filter4 FPM	-	218
Filter5 FPM	-	189
Filter Ave FPM(corr)	-	203
CFM	1600	1644

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE

Test Data Supply		
	Design	Actual
Total AK Area	10.5	9
Kv factor (Vel)	0.89	0.87
Num of Readings	-	8
Reading1 FPM	-	146
Reading2 FPM	-	154
Reading3 FPM	-	160
Reading4 FPM	-	163
Reading5 FPM	-	168
Reading6 FPM	-	132
Reading7 FPM	-	137
Reading8 FPM	-	141
Ave FPM(corr)	-	150
CFM	1280	1175

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Project: 06-26-23 FREDDY'S - POWELL, TN

System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:

Unit Data		
	Design	Actual
MFG	CaptiveAire	CAPTIVEAIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2-ACPSP-F
Job / Serial Num	-	5266912
Type	Canopy	TYPE 1 CANOPY
Hood length	60"	60"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	12"	12"
Supply Plenum Length	60"	60"

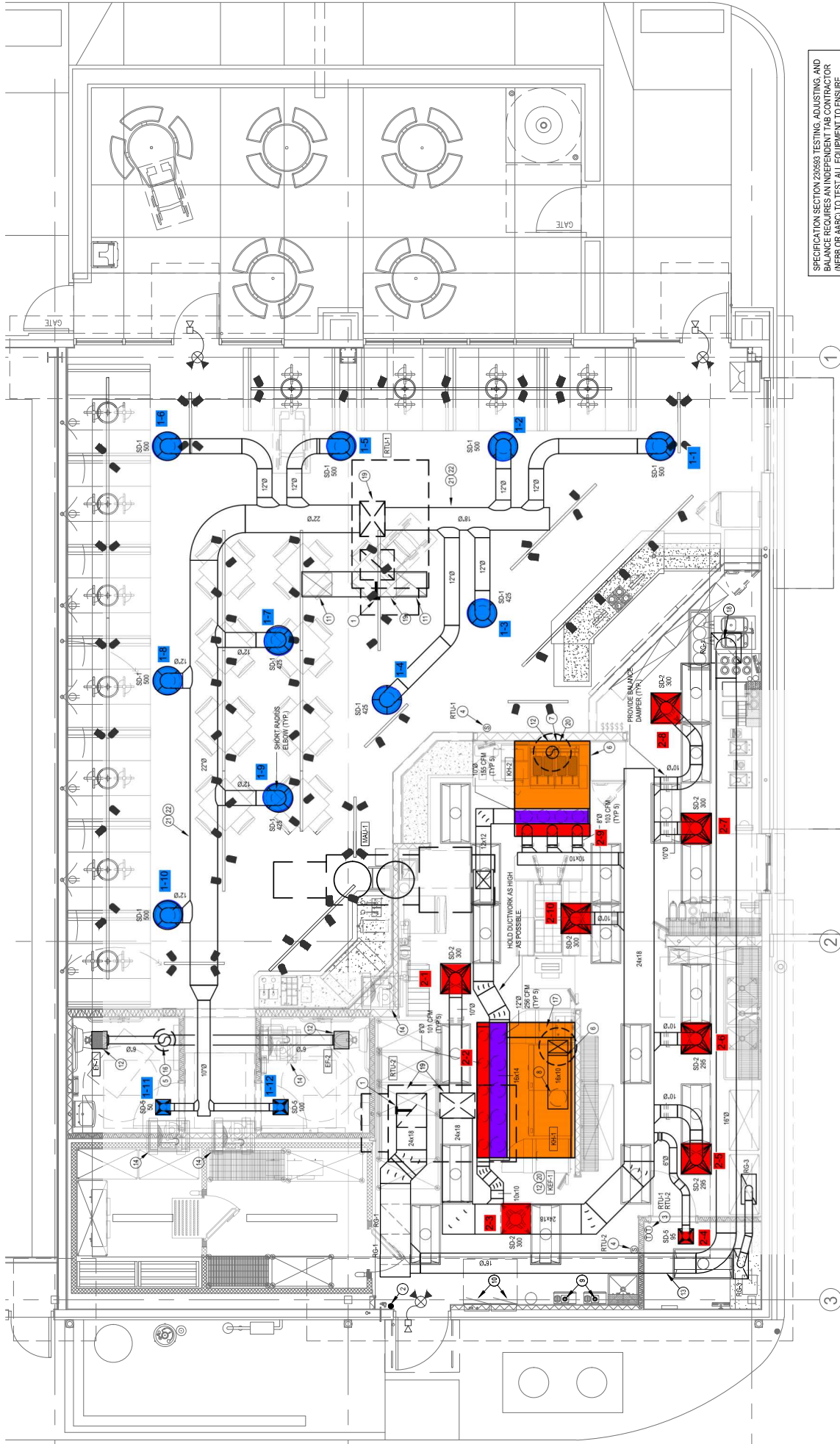
Test Data Supply		
	Design	Actual
Total AK Area	5	5
Kv factor (Vel)	0.87	0.87
Num of Readings	-	4
Reading1 FPM	-	139
Reading2 FPM	-	153
Reading3 FPM	-	186
Reading4 FPM	-	143
Ave FPM(corr)	-	155
CFM	620	674

Test Data Exhaust		
	Design	Actual
Filter Type	Captrate Solo	CAPTRATE SOLO
Filter Size 1	16x16	16X16
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	163
Filter2 FPM	-	158
Filter3 FPM	-	164
Filter Ave FPM(corr)	-	162
CFM	775	787

Cooking Equipment		
	Design	Actual
Item 1	-	FRYER

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SPECIFICATION SECTION 230583 TESTING, ADJUSTING, AND BALANCE REQUIRES AN INDEPENDENT TAB CONTRACTOR (NEBB OR ABC) TO TEST ALL EQUIPMENT TO ENSURE COMPLIANCE WITH DRAWINGS. OWNERS REPRESENTATIVE SHALL RECEIVE REPORT FROM CONTRACTOR.



1

2

3