Report By:

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

Report: TEST AND BALANCE

Function: Test, Adjust, & Balance

Date: 08/23/2023

PROJECT

07-27-23 FREDDY'S - BARSTOW, CA

NEED

BARSTOW, CA

Client

RKS Ventures, Inc.

9340 E Central Ave

Suite A

Wichita, KS 67206

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.

CheckList List

- TECH - SITE PICTURES
- TECH - STEP 1: INITIAL WALKTHROUGH
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3 - TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS
- TECH - STEP 5: FINAL DOCUMENTATION

07-27-23 FREDDY'S - BARSTOW, CA

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2023 - Brian Turnbough - National TAB		

CheckList Item Details

STORE FRONT

Comment:

20230726_093953
07/26/2023

RTU-1

Comment:

20230724_145851
07/26/2023

RTU-2

Comment:

20230724_145900
07/26/2023

MAU-1	Yes

Comment:

20230724_145841
07/26/2023

EF-1	Yes

Comment:

KEF-1

20230724_145822
07/26/2023

EF-2	Yes

Comment:

KEF-2

20230724_145829
07/26/2023

EF-3	Yes

Comment:

KEF-3

20230724_145834
07/26/2023

HOOD-1	Yes

Comment:

20230724_145620
07/26/2023

HOOD-2	Yes

Comment:

20230724_145626
07/26/2023

HOOD-3	Yes

Comment:

20230724_145607
07/26/2023

07-27-23 FREDDY'S - BARSTOW, CA

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2023 - Brian Turnbough - National TAB		

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	

07-27-23 FREDDY'S - BARSTOW, CA

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2023 - Brian Turnbough - 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?	No
Comment:	
DCV Max damper opening position is set to minimum?	No
Comment:	
Free cooling enthalpy set point set for lowest setting (Typically "D")	No
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:

N/A

Is gas piping installed and valves turned on?	N/A

Comment:

Unit free of noticeable noise and vibration	Yes

Comment:

EF's

Rotation is correct?	Yes

Comment:

Belts are tight?	

Comment:

N/A

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?	No

Comment:

DOCUMENTATION

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

Comment:

07-27-23 FREDDY'S - BARSTOW, CA

CheckList Information

Name :	TECH - STEP 3 - TEST, ADJUST AND BALANCE	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2023 - Brian Turnbough - National TAB		

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:

N/A

07-27-23 FREDDY'S - BARSTOW, CA

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2023 - Brian Turnbough - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

NONE

List smoke candle type used

Comment:

45 SECONDS

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	07/26/2023

Comment:

TAB tech name / Firm

Comment:

ZACK / NATIONAL TAB

Site super name / Firm

Comment:

N/A

Owner representative name / Firm (if Applicable)

Comment:

JOSE / FREDDY'S

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

Comment:

-0.062"

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:

YES

07-27-23 FREDDY'S - BARSTOW, CA

CheckList Information

Name :	TECH - STEP 5: FINAL DOCUMENTATION	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	07/24/2023 - Brian Turnbough - National TAB		

CheckList Item Details

FINAL DOCUMENTATION

Marked Data capture complete for all assets?	Yes
Comment:	
Picture file sent to processing team or uploaded?	Yes
Comment:	
Balance schedule complete and uploaded?	Yes
Comment:	
Prelim report generated and reviewed?	Yes
Comment:	

National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: AHU/RTU

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	RHEEM	RHEEM
Serial Num	-	F4222201184
Model Num	RACDZT120ACH	RACDZT120ACH
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	PROTECH
Frame	-	NL
Horsepower	2	3
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208-230/460
Rated Amperage	-	9.0-9.2/4.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP60
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	8"
Fan Sheave Bore	-	1"
Belt CL Distance	-	17"
Num of Belts	-	1
Belt Size	-	A50
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	4000	4073
SF RPM	-	972
RA CFM	3280	4073
OA CFM	720	0
RL Voltage	-	208/207/208
RL Amperage	-	7.2/7.1/7.2
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	0%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.58"
Fan Suction SP	-	-1.05"
Fan Discharge SP	-	0.64"
Total ESP	1.0	1.22"
Fan Total SP	-	1 69"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO, CONSTRUCTION FILTERS
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 07/26/2023

National TAB

Project:07-27-23 FREDDY'S - BARSTOW, CA

AHU/RTU

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU1-SGRD1	DINING	SD1	12"	528	1	961		961	182.0
RTU1-SGRD2	DINING	SD1	12"	528	1	658		658	124.6
RTU1-SGRD3	DINING	SD1	12"	528	1	706		706	133.7
RTU1-SGRD4	DINING	SD1	12"	528	1	434		434	82.2
RTU1-SGRD5	DINING	SD1	12"	528	1	502		502	95.1
RTU1-SGRD6	DINING	SD1	12"	528	1	527		527	99.8
RTU1-SGRD7	DINING	SD1	12"	528	1	82		82	15.5
RTU1-SGRD8	WOMENS RR	SD5	6"	50	1	56		56	112.0
RTU1-SGRD9	RR HALL	SD5	6"	85	1	80		80	94.1
RTU1-SGRD10	MENS RR	SD5	6"	100	1	67		67	67.0
RTU1-SGRD11	JANITORS CLSET	SD5	6"	70	1	0		0	0.0
Total				4001		4073	0	4073	101.8%

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Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: AHU/RTU

Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	RHEEM	RHEEM
Serial Num	-	F4222201185
Model Num	RACDZT120ACH	RACDZT120ACB
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	PROTECH
Frame	-	NL
Horsepower	5	3
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208-230/460
Rated Amperage	-	9.0-9.2/4.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	3.5"
Motor Bore Size	-	3/4"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	8"
Fan Sheave Bore	-	1"
Belt CL Distance	-	17
Num of Belts	-	1
Belt Size	-	A50
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	4000	3917
SF RPM	-	981
RA CFM	3280	3917
OA CFM	720	0
RL Voltage	-	208/209/210
RL Amperage	-	7.4/7.3/7.3
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	0%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.57"
Fan Suction SP	-	-0.97"
Fan Discharge SP	-	0.54"
Total ESP	1.0	1.11"
Fan Total SP	-	1.51"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO, CONSTRUCTION FILTERS
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 07/26/2023

National TAB

Project:07-27-23 FREDDY'S - BARSTOW, CA

AHU/RTU

Diffuser Supply (GRD)

RTU2/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU2-SGRD1	KITCHEN	SD3	12"	425	1	559		559	131.5
RTU2-SGRD2	KEH-1	ACPSP	8"	505	3.21	389		389	77.0
RTU2-SGRD3	KITCHEN	SD3	12"	425	1	398		398	93.6
RTU2-SGRD4	KITCHEN	SD3	12"	425	1	340		340	80.0
RTU2-SGRD5	KEH-2	ACPSP	8"	309	1.73	214		214	69.3
RTU2-SGRD6	CUSTOMER SERVICE	SD2	10"	325	1	231		231	71.1
RTU2-SGRD7	KITCHEN	SD3	12"	315	1	273		273	86.7
RTU2-SGRD8	DRIVE THRU	SD3	12"	400	1	336		336	84.0
RTU2-SGRD9	KITCHEN	SD3	12"	450	1	496		496	110.2
RTU2-SGRD10	OFFICE	SD4	8"	148	1	112		112	75.7
RTU2-SGRD11	BOH	SD2	10"	335	1	569		569	169.9
Total				4062		3917	0	3917	96.43%

National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:STORAGE

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	GC-146	GC-146
Serial Num	-	
Type	Ceiling	
Configuration	Vertical	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	30.3W	
Motor Rpm	-	
Phase	1	
Voltage (rated)	120	
Amperage (rated)	-	
Service Factor	-	

Test Data		
	Design	**Actual**
CFM	75	
Fan RPM	900	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	0.25	
Fan Inlet SP	-	
Fan Discharge SP	-	

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National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: FAN - Exhaust

Asset: EF2 AREA:MENS RR

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	GC-146	GC-168
Serial Num	-	
Type	Ceiling	
Configuration	Vertical	

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

Test Data		
	Design	**Actual**
CFM	150	
Fan RPM	1099	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	0.25	
Fan Inlet SP	-	
Fan Discharge SP	-	

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National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: FAN - Exhaust

Asset: EF3 AREA:WOMENS RR

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	GC-146	GC-146
Serial Num	-	
Type	CEILING	
Configuration	VERTICAL	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	30.3W	
Motor Rpm	1099	
Phase	1	
Voltage (rated)	120	
Amperage (rated)	-	
Service Factor	-	

Test Data		
	Design	**Actual**
CFM	75	
Fan RPM	-	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	0.25	
Fan Inlet SP	-	
Fan Discharge SP	-	

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National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	COOK	CAPTIVEAIRE
Model Num	GC-146	CASRE18DD
Serial Num	-	5195411
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	230/460
Amperage (rated)	-	3.44/1.72
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	1600	1596
Fan RPM	1105	961
Fan Rotation	-	CCW
Motor RPM	-	961
System SetPt	-	62.7HZ
RL Voltage	-	208/208/207
RL Amperage	-	3.06/3.07/3.06
Total ESP	1.400	0.79"
Fan Inlet SP	-	-0.79"
Fan Discharge SP	-	ATM

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Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: FAN - Exhaust

Asset: KEF2 AREA:FRYER

Unit Data		
	Design	**Actual**
MFG	COOK	CAPTIVEAIRE
Model Num	GC-146	DU50HFA
Serial Num	-	5195411
Type	Upblast/Ceiling	UPBLAST
Configuration	Vertical	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NA
Horsepower	0.500	0.5
Motor Rpm	-	2000
Phase	1	1
Voltage (rated)	115V	115
Amperage (rated)	-	6.3
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	775	802
Fan RPM	1532	1700
Fan Rotation	-	CCW
Motor RPM	-	1700
System SetPt	-	85%
RL Voltage	-	120
RL Amperage	-	6.3
Total ESP	1250	0.53"
Fan Inlet SP	-	-0.53"
Fan Discharge SP	-	ATM

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Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: FAN - Exhaust

Asset: KEF3 AREA:DISHWASHER

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU33HFA	DU33HFA
Serial Num	-	5195411
Type	UPBLAST/CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.33	0.33
Motor Rpm	-	2000
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.3
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	525	515
Fan RPM	1500	1540
Fan Rotation	-	CCW
Motor RPM	-	1540
System SetPt	-	77
RL Voltage	-	120
RL Amperage	-	2.38
Total ESP	0.800	0.49"
Fan Inlet SP	-	-0.49"
Fan Discharge SP	-	ATM

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Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: FAN - Supply

Asset: MUA1 AREA:KITCHEN HOODS

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1-D.250-15D-MPU	A1-D.500-15D-MPU
Serial Num	-	5
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	230/460
Amperage (rated)	-	7.64/3.82
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	-	0.47"

Test Data		
	Design	**Actual**
CFM	2250	2269
SF RPM	2176	2662
Motor RPM	-	2948
SF System SetPt	-	36.6
RL Voltage	-	209/210/209
RL Amperage	-	5.8/5.7/5.87
Total ESP	-	NA
Fan Discharge SP	-	NA

General		
	Design	**Actual**
Fan Rotation Correct	-	YES

Completed By: Zack Eismin on 07/25/2023

National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2-ACPSP-F
Job / Serial Num	-	5195411
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	96"	96"
Hood Width	54"	54"
Supply Plenum Type	-	PERFORATED
Supply Plenum Width	12"	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	-	194
Filter2 FPM	-	205
Filter3 FPM	-	195
Filter4 FPM	-	211
Filter5 FPM	-	184
Filter Ave FPM(corr)	-	197
CFM	1600	1596

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

Test Data Supply		
	Design	**Actual**
Total AK Area	10.5	10.5
Kv factor (Vel)	0.89	0.89
Num of Readings	-	8
Reading1 FPM	-	133
Reading2 FPM	-	147
Reading3 FPM	-	127
Reading4 FPM	-	137
Reading5 FPM	-	143
Reading6 FPM	-	110
Reading7 FPM	-	129
Reading8 FPM	-	118
Ave FPM(corr)	-	130
CFM	1600	1218

Completed By: Zack Eismin on 07/25/2023

National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:FRYER

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2-ACPSP-F
Job / Serial Num	-	5195411
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	60"	60"
Hood Width	54"	54"
Supply Plenum Type	-	PERFORATED
Supply Plenum Width	12"	12"
Supply Plenum Length	60"	60"

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	-	157
Filter2 FPM	-	177
Filter3 FPM	-	161
Filter Ave FPM(corr)	-	165
CFM	775	802

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

Test Data Supply		
	Design	**Actual**
Total AK Area	5	5
Kv factor (Vel)	0.87	0.87
Num of Readings	-	4
Reading1 FPM	-	233
Reading2 FPM	-	250
Reading3 FPM	-	264
Reading4 FPM	-	221
Ave FPM(corr)	-	241.6
CFM	620	1051

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National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

System/Unit: Kitchen Hood Type II

Asset: HD(Type2)3 AREA:DISHWASHER

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	4224 VHB-G	4224 VHB-G
Serial Num	-	5195411
Type	-	TYPE II
Hood length	42	42"
Hood Width	42	42"
Num of Exhaust Risers	-	1

Test Data		
	Design	**Actual**
Exhaust VEL(corr)	-	945
Exhaust CFM	525	515

Cooking Equipment		
	Design	**Actual**
Item 1	-	DISH WASHER
Item 2	-	
Item 3	-	
Item 4	-	
Item 5	-	

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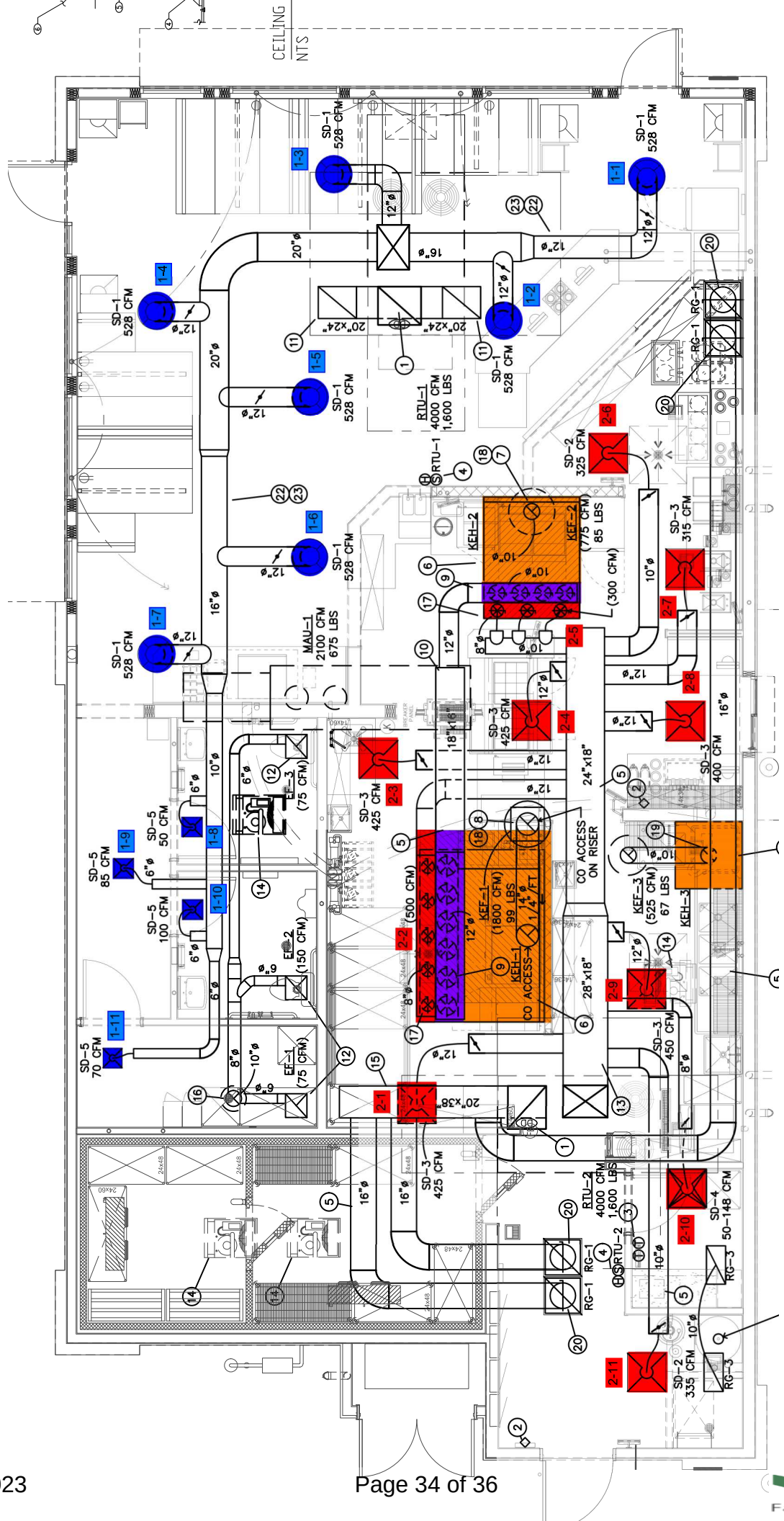
National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

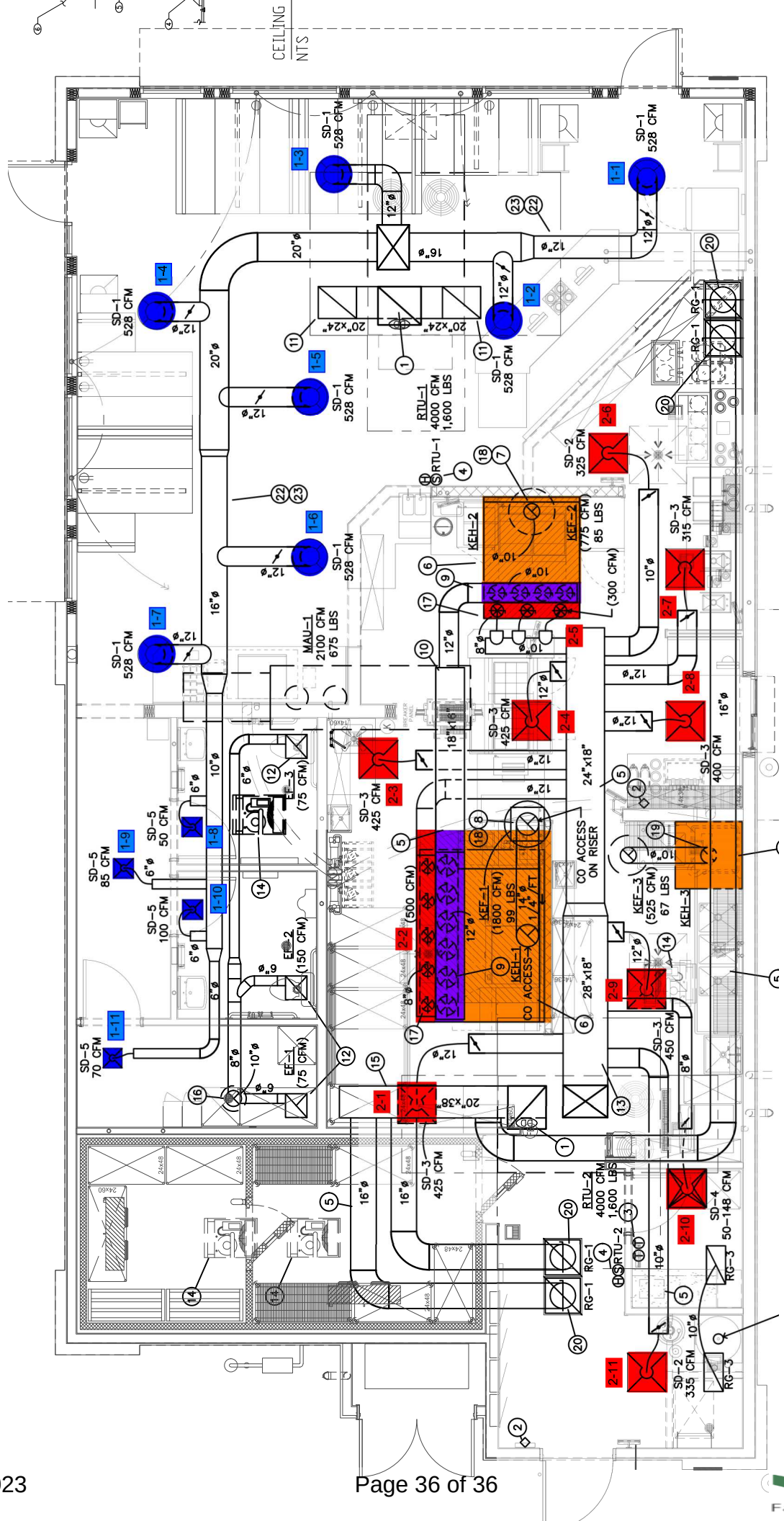
- Open Barstow_Balance_Schedule.xlsx


CEILING
NTS
SD-1
528 CFM
1-1
1-2
1-3
1-4
1-5
1-6
1-7
RTU-1
4000 CFM
1,600 LBS
MAU-1
2100 CFM
675 LBS
KEH-2
KEF-2
(775 CFM)
85 LBS
(300 CFM)
SD-2
325 CFM
SD-3
315 CFM
2-6
2-7
2-5
2-8
SD-3
425 CFM
2-4
2-3
SD-3
400 CFM
SD-5
50 CFM
SD-5
85 CFM
1-9
1-8
1-10
SD-5
100 CFM
EF-3
(75 CFM)
EF-2
(150 CFM)
KEF-1
(1800 CFM)
99 LBS
KEH-1
CO ACCESS
ON RISER
KEF-3
(525 CFM)
67 LBS
KEH-3
2-2
2-9
SD-5
70 CFM
1-11
EF-1
(75 CFM)
2-1
SD-3
425 CFM
SD-3
450 CFM
RTU-2
4000 CFM
1,600 LBS
SD-4
50-148 CFM
2-10
2-11
SD-2
335 CFM
RG-1
RG-3

National TAB

Project: 07-27-23 FREDDY'S - BARSTOW, CA

- Open Barstow_Balance_Schedule.xlsx


CEILING
NTS
SD-1
528 CFM
1-1
1-2
1-3
1-4
1-5
1-6
1-7
1-8
1-9
1-10
1-11
RTU-1
4000 CFM
1,600 LBS
RTU-2
4000 CFM
1,600 LBS
MAU-1
2100 CFM
675 LBS
KEF-1
(1800 CFM)
99 LBS
KEF-2
(775 CFM)
85 LBS
(300 CFM)
KEF-3
(525 CFM)
67 LBS
KEH-1
KEH-2
KEH-3
EF-1
(75 CFM)
EF-2
(150 CFM)
EF-3
(75 CFM)
SD-1
528 CFM
SD-2
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SD-2
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SD-5
70 CFM
2-1
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2-3
2-4
2-5
2-6
2-7
2-8
2-9
2-10
2-11
CO ACCESS
ON RISER
CO ACCESS
RG-1
RG-3