Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 07/31/2023

PROJECT

07-24-23 HIGHLAND PLAZA KANSAS CITY, MO

973 N.ASH AVENUE,

KANSAS CITY , MO 64157

Client

Oliphant Heating

208 WOLLARD BLVD

RICHMOND, MO

National TAB

Project: 07-24-23 HIGHLAND PLAZA KANSAS CITY, MO

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Project Summary

The scope for TAB was to balance total supply and outside air for (4) RTU's. The airflow was measured by fully opening the outside air damper on the roof and traversing the outside air intake with a velocity grid at the filter opening. Outside air was then set to the designs on the plans. The fan speed was found to be modulating and was locked into single speed to ensure better throw and air circulation for the sales floor.

CheckList List

- SITE PICTURES

07-24-23 HIGHLAND PLAZA KANSAS CITY, MO

CheckList Information

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

CheckList Item Details

RTU-1

Comment:

Total supply cfm at 3790 cfm Adjusted damper to 4.5v to get 970 cfm

Dataplate
07/25/2023

RTU-2

Comment:

Total cfm supply reading at 3800 Adjusted damper to 4.5v to get 974 cfm

Dataplate
07/25/2023

RTU-3

Comment:

3700 total supply oa cfm. Adjusted damper to 4.5v to get 960 cfm

Dataplate
07/25/2023

RTU-4

Comment:

Total supply cfm 3750 Adjusted damper to 4.5v to get 965 cfm

Dataplate
07/25/2023

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Project: 07-24-23 HIGHLAND PLAZA KANSAS CITY, MO

System/Unit: AHU/RTU

Asset: RTU1 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	LENNOX	CARRIER
Serial Num	-	1023P13686
Model Num	LGH120H4M3Y	48LCD012B2 M5A0B1A0
Type	RTU	
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	22.5x25
Num Final Filter 1	-	3
Final Filter Size 1	-	18x24x2
Num Final Filter 2	-	3
Final Filter Size 2	-	18x24x2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	NL
Motor Rpm	1750	1750
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	9.2/4.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4 1/2"
Motor Bore Size	-	1 1/8"
Fan Sheave Size	-	9"
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 1/2"
Num of Belts	-	1
Belt Size	-	AX56

Test Data		
	Design	**Actual**
SF CFM	4000	3790
SF RPM	-	730
RA CFM	3050	2820
OA CFM	950	970
RL Voltage	-	208
RL Amperage	-	4.1
SF Rotation	-	CCW
RA Damper Position	-	4.5
Min OA Damper Position	-	4.5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.29"
Fan Discharge SP	-	0.37"
Total ESP	0.40"	0.66"

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

Completed By: Kyle Henry on 08/02/2023

National TAB

Project: 07-24-23 HIGHLAND PLAZA KANSAS CITY, MO

System/Unit: AHU/RTU

Asset: RTU2 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	LENNOX	CARRIER
Serial Num	-	1023P13683
Model Num	LGH120H4M3Y	48LCD012B2 M5A0B1A0
Type	RTU	
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	22.5x25
Num Final Filter 1	-	3
Final Filter Size 1	-	18x24x2
Num Final Filter 2	-	3
Final Filter Size 2	-	18x24x2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	NL
Motor Rpm	1750	1750
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	9.2/4.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4 1/2"
Motor Bore Size	-	1 1/8"
Fan Sheave Size	-	9"
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 1/2"
Num of Belts	-	1
Belt Size	-	AX56
Belt Alignment	-	

Test Data		
	Design	**Actual**
SF CFM	4000	3800
SF RPM	-	750
RA CFM	3050	2826
OA CFM	950	974
RL Voltage	-	208
RL Amperage	-	4.3
SF Rotation	-	left
RA Damper Position	-	4.5
Min OA Damper Position	-	4.5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.32"
Fan Suction SP	-	0.30"
Fan Discharge SP	-	0.36"
Total ESP	0.40"	0.68"
Fan Total SP	-	.675

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

Completed By: Kyle Henry on 08/02/2023

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Project: 07-24-23 HIGHLAND PLAZA KANSAS CITY, MO

System/Unit: AHU/RTU

Asset: RTU3 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	LENNOX	CARRIER
Serial Num	-	1023P13684
Model Num	LGH120H4M3Y	48LCD012B2 M5A0B1A0
Type	RTU	
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	22.5x25
Num Final Filter 1	-	3
Final Filter Size 1	-	18x24x2
Num Final Filter 2	-	3
Final Filter Size 2	-	18x24x2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	NL
Motor Rpm	1750	1750
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	9.2/4.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4 1/2"
Motor Bore Size	-	1 1/8"
Fan Sheave Size	-	9"
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 1/2"
Num of Belts	-	1
Belt Size	-	AX56
Belt Alignment	-	

Test Data		
	Design	**Actual**
SF CFM	4000	3700
SF RPM	-	715
RA CFM	3050	2740
OA CFM	950	960
RL Voltage	-	208
RL Amperage	-	4
SF Rotation	-	left
RA Damper Position	-	4.5
Min OA Damper Position	-	4.5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.31"
Fan Suction SP	-	0.30"
Fan Discharge SP	-	0.38"
Total ESP	0.20"	0.69"
Fan Total SP	-	.68

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

Completed By: Kyle Henry on 08/02/2023

National TAB

Project: 07-24-23 HIGHLAND PLAZA KANSAS CITY, MO

System/Unit: AHU/RTU

Asset: RTU4 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	LENNOX	CARRIER
Serial Num	-	1023P13685
Model Num	LGH120H4M3Y	48LCD012B2 M5A0B1A0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	22.5x25
Num Final Filter 1	-	3
Final Filter Size 1	-	18x24x2
Num Final Filter 2	-	3
Final Filter Size 2	-	18x24x2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	NL
Motor Rpm	1750	1750
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	9.2/4.6

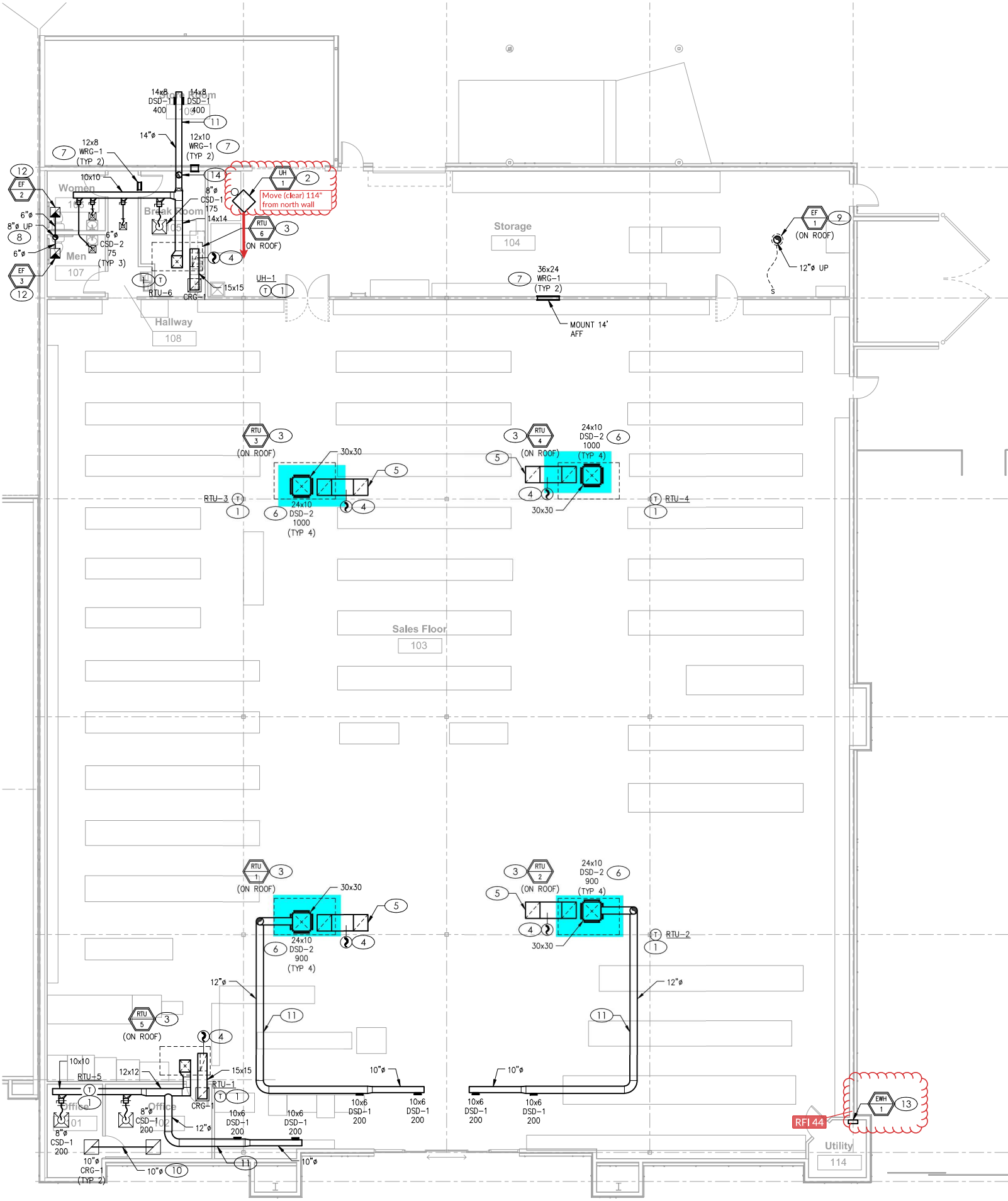
Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4 1/2"
Motor Bore Size	-	1 1/8"
Fan Sheave Size	-	9"
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	20 1/2"
Num of Belts	-	1
Belt Size	-	AX56
Belt Alignment	-	

Test Data		
	Design	**Actual**
SF CFM	4000	3750
SF RPM	1750	708
RA CFM	3050	2785
OA CFM	950	965
RL Voltage	-	208
RL Amperage	-	4.4
SF Rotation	-	Left
RA Damper Position	-	4.5
Min OA Damper Position	-	4.5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.30"
Fan Suction SP	-	0.29"
Fan Discharge SP	-	0.37"
Total ESP	0.20"	0.67"
Fan Total SP	-	.664

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

Completed By: Kyle Henry on 08/02/2023


Women
106
Break Room
105
Men
107
Storage
104
Hallway
108
Sales Floor
103
Office
101
Office
102
Utility
114
Move (clear) 114" from north wall
RFI 44
(ON ROOF)
MOUNT 14' AFF
12"ø UP
30x30
24x10 DSD-2 1000 (TYP 4)
24x10 DSD-2 900 (TYP 4)
RTU-1
RTU-2
RTU-3
RTU-4
RTU-5
RTU-6
UH-1
CRG-1
CSD-1 175
CSD-1 200
CSD-2 75 (TYP 3)
12x8 WRG-1 (TYP 2)
12x10 WRG-1 (TYP 2)
36x24 WRG-1 (TYP 2)
14x8 DSD-1 400
14x8 DSD-1 400
10x6 DSD-1 200
15x15
12x12
10x10
14x14