Report By:

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

NATIONAL TAB

Comfort. Under control.

Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 12/02/2022

PROJECT

01-09-23 WALGREENS #4708 - HAINES CITY, FL

35800 HWY 27

HAINES CITY , FL 33844

Client

Walgreens

200 WILMOT RD

DEERFIELD, IL 60015

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

Table Of Contents

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.

Commissioning Activities
Equipment was inspected to ensure that the installation meets Walgreens requirements. Control and equipment setpoints were checked and after balancing was completed performance of each unit was verified. The full list of items that were verified along with any that failed are contained in the checklists in this report.

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 per Walgreens standards. Each outlet was then adjusted to within tolerance. 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.

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. 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.

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

Project Issue Information

Issue Name : EF1 (Office) and EF5 (Photo) are not functional.

Description : EF-1 is not operational and could not be balanced. EF-5 will be capped off.

Created By : National TAB **Assigned To :** National TAB - Will Turnbough

Status : Open

Originated Date : 11/30/2022 - Ian Fuller - National TAB

Project Issue File Details

EF5.jpeg

EF1.jpeg

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

Project Issue Information

Issue Name : RTU3 has alarm: using return sensor instead of space sensor.

Description : The space sensor is installed. Recommend installing contractor troubleshoot. Discovered after installing contractor left site.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Open

Originated Date : 11/30/2022 - Ian Fuller - National TAB

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

Project Issue Information

Issue Name : RTU5 has alarm: "c1 locked due to coil freeze"

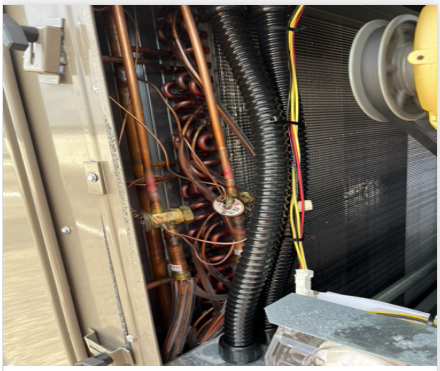
Description : Alarm does not allow c1 to turn on. Coils are not frozen and the compressor is lukewarm. Possible faulty sensor.

Created By : National TAB **Assigned To :** National TAB - Will Turnbough

Status : Open

Originated Date : 11/30/2022 - Ian Fuller - National TAB

Project Issue File Details



Evaporatorcoils.jpeg

Project Issue Response Details

- **12/02/2022 National TAB - Will Turnbough**
  - Installing contractor inspected and said the sensor is faulty and they ordered a new one to replace it.

NATIONAL TAB

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	FRONT SALES	2625	2841	2187	2437	438	404	16.7%	14.2%						
RTU-2	FRONT SALES	2275	2431	2175	2323	100	108	4.4%	4.4%						
RTU-3	REAR SALES	1750	1880	1650	1782	100	98	5.7%	5.2%						
RTU-4	REAR SALES	1400	1507	1300	1413	100	94	7.1%	6.2%						
RTU-5	PHARMACY	2275	2435	2175	2435	100	0	4.4%	0.0%						
RTU-6	STOCKROOM	1400	1489	1300	1380	100	109	7.1%	7.3%						
RTU-7	FRONT SALES	1750	1868	1650	1759	100	109	5.7%	5.8%						
EF-1	OFFICE													300	0
EF-2	BREAK ROOM													300	274
EF-3	RESTROOM													250	243
EF-4	RESTROOM													405	368
EF-5	PHOTO													0	0
TOTALS		13475	14451	12437	13529	1038	922			0	0	0	0	1255	885

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1038	922
TOTAL EXHAUST	1255	885
NET AIRFLOW	-217	37

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0089
SIDE	0.0049
REAR	
AVERAGE	**0.0069**

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:

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

CheckList Information

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

CheckList Item Details

STORE FRONT

Storefront.jpeg

RTU-1

RTU1.jpeg

RTU-2

RTU2.jpeg

RTU-3

RTU3.jpeg

RTU-4

RTU4.jpeg

RTU-5

RTU5.jpeg

RTU-6

RTU6.jpeg

RTU-7

RTU7.jpeg

EF-1

EF1.jpeg

EF-2

EF2.jpeg

EF-3

EF3.jpeg

EF-4

EF4.jpeg

EF-5

EF5.jpeg

Notes/Comments :

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

CheckList Information

Name :	TECH - 01 RTU INSTALLATION CHECKLIST	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

General / Exterior Inspections	
Verify all required equipment has been replaced per TA and BOM.	Pass
All units are installed in the proper locations	Pass
Units are labeled correctly	Pass
Asset tag installed	Pass
Roof is clear of debris.	Pass
Maintenance access for all unit access panels is acceptable and panels open freely.	Fail
Cabinet and general installation is complete.	Pass
Unit is secure to curb and level horizontally and vertically.	Pass
Access doors close tightly with no leaks	Pass
Condensate and gas piping is properly supported.	Pass
Costgaurd is installed per scope of work and piping unions are cemented.	Pass
Additional Comments	RTU#5 MOTOR ACCESS DOOR DOESN'T CLOSE EASILY.
Interior Inspections	
Fan rotation is correct	Pass
Pulleys are correctly aligned and both motor and fan sheave pins are tightened in place.	Pass

Return air and outside air dampers close tightly with no gaps	Pass
Cabinet and coils are not damaged and in like new condition.	Pass
Inside of unit is clean and clear of debris.	Pass
Validate condesate is piped to splash block, draing, or roof drain per code requirements	Pass
Verify filters are installed, clean and of proper size. Verify there is no air by-pass around filters.	Pass
Curb is sealed with no air leakage.	Pass
Additional Comments:	
Fire/Smoke Alarm Systems	
In duct smoke detectors are installed	Pass
Fire alarm panel status (visual inspection where possible)	
Additional Comments:	
Electrical	
Electrical wiring is complete with no visible damage	Pass
Electrical connections are tight with sealtight around any unit penetrations.	Pass
Disconnect switch is installed in accessible location near or on unit.	Pass
Verify overcurrent protection is HACR type, installed and sized correctly and labeled in panel.	Pass
Maintenance electrical outlet is installed and functional.	Pass
Main distribution panel is labeled correctly.	Pass
Unit ground wire is secured.	Pass
Additional Comments:	

Notes/Comments :

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

CheckList Information

Name :	TECH - 02 EXHAUST FANS INSPECTIONS	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

Fan rotation is correct	Pass
Pulleys are aligned and belts are tensioned properly	NA
Speed controller installed and functional (direct drive)	YES
Fan is secured to the curb	Pass
Back draft damper is installed and functional	Pass
No exterior damage to the fan	Pass
No unusual noise or vibration	Pass
Controls are functional	Pass
Additional Comments:	EF#5 AND EF#1 ARE NOT FUNCTIONAL.

Notes/Comments :

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

CheckList Information

Name :	TECH - 03 START-UP CONTROLS PROGRAMMING	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

Programming: SE 3.3, 3.4, 4.0

Controller-Network-Address: RTU number + 3	Pass
Controller-Network-FCBusMode = Wired Field Bus	Pass
Controller-Network-BaudRate = Auto	Pass
Controller-Network-Device ID = RTU number + 3	Pass
Details-Occ-OffDurUnocc = No	Pass
Details-Clg-Setup-Clg-En = Yes	Pass
Details-Clg-Setup-ClgAdapTunEn = Yes	Pass
Details-Htg-Setup-Htg-En = Yes	Pass
Details-Htg-Setup-#HtgStgs = 2 Stages	Pass
Details-Htg-Setup-HtgAdapTunEn = Yes	Pass
Details-Htg-Setup-#GasVlvs = 1 (Set to 0 for Hp and Elect Heat)	Pass
Details-Fan-Setup-Fan Ctl-Type = No VFD select "Single Speed", W/VFD select "Fixed Variable"	Pass
Details-Fan-Setup-FanOnOcc = Yes	Pass
Details-Fan-Setup-FanOnDlyHeat = 30s (Set to 0 for HP or Electric Heat)	Pass
Details-Fan-Setup-FanOnly-%Cmd = 50%	Pass

Details-Fan-Setup-1ClgStg-%Cmd = 70%	Pass
Details-Fan-Setup-2Clgstg-%Cmd = 100% (2stage Unit) or 80% (3 and 4 stage)	Pass
Details-Fan-Setup-3ClStg-%Cmd = 100% (3 stage unit) or 90% (4 stage)	Pass
Details-Fan-Setup-4ClStg-%Cmd = 100% (4 Stage unit)	Pass
Details-Fan-Setup-1HtgStg-%Cmd = 100%	Pass
Details-Fan-Setup-2HtgStg-%Cmd = 100%	Pass
Details-Econ-Setup-Econ-En = Yes	Pass
Details-Econ-Setup-Econ-MinPos = Set to minimum outside air requirements.	Pass
Details-Econ-Setup-LowSpdFan-MinPos = Set minimum 1% above EconMinPos	Pass
Details-Econ-Setup-FreeClg-Sel = Single Enthalpy	Pass
Details-Econ-Setup-EconOAEnth-Sp 4= 24 Btu/lb	Pass
Details-Econ-Setup-Dvent-Mode = Enable	Pass
Details-Econ-Setup-DventMaxEconPos = 50%	Pass
Details-Econ-Setup-DventIAP-Sp = 1000	Pass
Details-Econ-Setup-EconFltDetectEn = Enable	Pass
Additional Comments:	
Non ZR Units only:	
Details-HGR-Setup-HGR-En = No	Pass
Details-HGR-Setup-HGRAlt-En = No	Pass
Details - HGR-Setup-HGRUnocc-En = No	Pass
Details-HGR-Setup-Mode = No	Pass
Additional Comments:	
ZR Units - Reheat Units only:	
Details-HGR-Setup-HGR-En = Yes	
Details-HGR-Setup-HGRAlt-En = Yes	

Details - HGR-Setup-HGRUnocc-En = Yes	
Details-HGR-Setup-Mode = No	
Additional Comments:	NON-ZR UNITS

Notes/Comments :

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

CheckList Information

Name : TECH - 04 EMS/SENSOR VALIDATION **Status :** Submitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

RTU supply air temp sensor location located per start-up binder.	Pass
RTU return air temp sensor location located per start-up binder.	Pass
RTU return air smoke detector (when applicable) is located per start-up binder.	Pass
Space temperature sensor has been replaced and location meets requirements.	Pass
Space humidity sensor has been replaced and location meets requirements.	Pass
Unit is being controlled by a space temperature sensor or thermostat	Pass
EMS has been connected and validated with TOC or Gridpoint. Screen shot is available.	Pass
No splicing of EMS/Sensor/Thermostat wiring is visible	Pass
(If Applicable) 2 Stage Thermostat to SE Board Control Wiring meets detail in start-up binder.	NA
(If Applicable) 2 Stage Thermostat to 4 Stage Unit meets detail in start-up binder.	NA
(If Applicable) 4 Stage Thermostat to 4 Stage Unit meets detail in start-up binder.	NA
(If Applicable) 3 Stage Thermostat wiring meets detail in start-up binder.	NA
(If Applicable) 3 Stage Thermostat with Humidity sensor wiring meets detail in start-up binder.	NA

(If Applicable) EH Thermostat with SCR control wiring meets detail in start-up binder.	NA
Temperature setpoints are set for correction region and space (see ASHRAE / temperature setpoint chart in procedure)	Pass
Additional Comments:	

Notes/Comments :

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

CheckList Information

Name :	TECH - 05 TAB CHECKLIST	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

Outside air damper set to minimum air flow requirement and damper position marked.	Pass
Total Supply, return, and outside air volumes meet design tolerances (+/-10%)	Pass
Enclosed area diffusers (Pharmacies, manager office, employee room, restrooms, electrical rooms) balanced within +/-10%?	Pass
Open area diffusers (Sales floor and stock room) balanced within +/-25% of design?	Pass
Store pressure meets tolerances (see formula in balance schedule). Make sure to account for existing exhaust fans airflows as shown on original drawings that are non-functioning.	Pass
Outside air and return air dampers modulate freely.	Pass
Start-up report from the installing contractor is reviewed and all information if filled out. All required measurements are within typical ranges.	Pass
(If Applicable) VFD is set-up and operational. (N/A = not applicable)	YES
Verify amp draw of motor is within unit specification, not operating in overamped condition.	Pass
Sales floor temperature and humidity measurement	Temp: 73.2 Hum: 46.2%
Pharmacy temperature and humidity measurement	Temp: 74.1 Hum: 51.4%
Stock Room temperature and humidity measurement	Temp: 74.3 Hum: 52.8%
Outdoor air temperature and humidity measurement	Temp: 82.0 Hum: 42.6

Additional Comments:

Notes/Comments :

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

CheckList Information

Name : TECH - 06 FUNCTIONAL TESTS **Status :** Submitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

Cooling Functional Test	
Overwrite the thermostat or sensor to put the unit into cooling mode.	Pass
Compressors enable.	Pass
If fan has VFD, the fan increases speed.	Pass
Document the discharge air temperature.	RTU1: 53.0 RTU2: 52.4 RTU3: 54.1 RTU4: 54.7 RTU5: 68.0 RTU6: 54.5 RTU7: 53.1
After 10 minutes, Discharge air temperature is below 55 degrees.	Fail
Cooling mode is operational	Pass
Additional Comments:	
Heating Functional Test	
Overwrite the thermostat or sensor to put the unit into heating mode.	Pass
Heat exchanger enables.	Pass
If fan has VFD, the fan increases speed.	Pass
Document the discharge air temperature.	RTU1: 85.6 RTU2: 85.1 RTU3: 85.2 RTU4: 86.0 RTU5: 85.0 RTU6: 86.2 RTU7: 85.3
After 10 minutes, Discharge air temperature is above 85 degrees.	Pass
Heating mode is operational	Pass

Additional Comments	
Dehumidification Functional Test	
Overwrite the humidistat to put the unit into dehumidification mode.	Pass
Compressors enable.	Pass
Hot Gas Reheat Valve opens	Fail
If fan has VFD, the fan increases speed.	Pass
Document the discharge air temperature.	RTU1: 53.0 RTU2: 52.4 RTU3: 54.5 RTU4: 54.6 RTU5: 68.0 RTU6: 54.3 RTU7: 53.1
Dehumidification Mode is operational. (Pass/Fail/NA)	Pass
Additional Comments:	ELECTRIC UNITS NO HOT GAS REHEAT VALVES
Economizer Functional Test	
Overwrite the humidistat to put the unit into economizer mode.	Pass
Economizer modulates from minimum position to 100% open. (Pass/Fail/NA)	Pass
Additional Comments:	

Notes/Comments :

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01-09-23 WALGREENS #4708 - HAINES CITY, FL

CheckList Information

Name :	TECH - 07 TEMPERATURE SETPOINTS	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

Temperature setpoints must be set using provided charts are based on state and space that each RTU serves. Confirm with controls company that these are set correctly	Pass

Notes/Comments :

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: AHU/RTU

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Asset: RTU1 AREA:FRONT SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2G2767303
Model Num	ZT090E09R2B5GCE2R1	ZT090E09R2B5GCE2R1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X20.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X24X2

Test Data		
	Design	**Actual**
SF CFM	2625	2841
SF RPM	1028	NA
RA CFM	2187	2437
OA CFM	438	404
RL Voltage	-	208/209/208
RL Amperage	-	5.8/5.7/5.7
SF Rotation	-	CCW
RA Damper Position	-	90%
Min OA Damper Position	-	10%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	24

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	3	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	230	208-230/460
Rated Amperage	-	8.3-8.2/4.1

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.36”
Fan Suction SP	-	-0.55”
Fan Discharge SP	-	0.36”
Total ESP	1.2"	0.72"
Fan Total SP	-	0.91"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4.75”
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	8.0”
Fan Sheave Bore	-	1.125”
Belt CL Distance	-	19.0”
Num of Belts	-	1
Belt Size	-	A54
Belt Alignment	-	GOOD

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

Completed By: Ian Fuller

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU2 AREA:FRONT SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2F2377549
Model Num	ZT078E09R2B5GCA2R1	ZT078E09R2B5GCA2R1
Type	RTU'	RTU
Configuration	VERTICAL	VERTICLE
Num OA Filters 1	-	1
OA Filter Size 1	-	29X20.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X24X2

Test Data		
	Design	**Actual**
SF CFM	2275	2431
SF RPM	976	NA
RA CFM	2175	2323
OA CFM	100	108
RL Voltage	-	209/210/209
RL Amperage	-	5.6/5.8/5.6
SF Rotation	-	CCW
RA Damper Position	-	97%
Min OA Damper Position	-	3%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	24

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	2	2
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	230	208-230/460
Rated Amperage	-	5.8/2.9

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.33”
Fan Suction SP	-	-0.52"
Fan Discharge SP	-	0.29”
Total ESP	1.2"	0.62"
Fan Total SP	-	0.81"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4.5”
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	7.0”
Fan Sheave Bore	-	0.875”
Belt CL Distance	-	19.5”
Num of Belts	-	1
Belt Size	-	CODE 1
Belt Alignment	-	GOOD

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

Completed By: Ian Fuller

Notes:

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Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: AHU/RTU

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Asset: RTU3 AREA:REAR SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2G2686938
Model Num	ZJ061E09D2B5GCA2R3	ZJ061E09D2B5GCA2R3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75X20
Num Final Filter 1	-	4
Final Filter Size 1	-	16X24X2

Test Data		
	Design	**Actual**
SF CFM	1750	1880
SF RPM	1035	969
RA CFM	1650	1782
OA CFM	100	98
RL Voltage	-	209/208/208
RL Amperage	-	5.8/5.6/5.6
SF Rotation	-	CCW
RA Damper Position	-	97%
Min OA Damper Position	-	3%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	24

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	2	2
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208-230/460
Rated Amperage	-	6.6-6.8/3.4

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.51"
Fan Suction SP	-	-0.90"
Fan Discharge SP	-	0.57"
Total ESP	1.2"	1.08"
Fan Total SP	-	1.47"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.0”
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	7.0”
Fan Sheave Bore	-	1.125”
Belt CL Distance	-	17.0”
Num of Belts	-	1
Belt Size	-	A51
Belt Alignment	-	GOOD

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

Completed By: Ian Fuller

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU4 AREA:REAR SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2E2367328
Model Num	ZJ049E06D2B5BCA2R2	ZJ049E06D2B5BCA2R2
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X20.5
Num Final Filter 1	-	4
Final Filter Size 1	-	16X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	CENTURY
Frame	-	56HZ
Horsepower	1.50	1.5
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208-230/460
Rated Amperage	-	5.0/2.5

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4.25”
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	5.5”
Fan Sheave Bore	-	0.875”
Belt CL Distance	-	17.5”
Num of Belts	-	1
Belt Size	-	A46
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	1400	1507
SF RPM	1001	957
RA CFM	1300	1413
OA CFM	100	94
RL Voltage	-	211/212/214
RL Amperage	-	4.3/4.4/4.9
SF Rotation	-	CCW
RA Damper Position	-	95%
Min OA Damper Position	-	5%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	24

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.54”
Fan Suction SP	-	-0.94”
Fan Discharge SP	-	0.64”
Total ESP	1.2"	1.18"
Fan Total SP	-	1.58"

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

Completed By: Ian Fuller

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU5 AREA:PHARMACY

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2F2377550
Model Num	ZT078E09R2B5GCA2R1	ZT078E09R2B5GCA2R1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X20.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X24X2

Test Data		
	Design	**Actual**
SF CFM	2275	2435
SF RPM	976	923
RA CFM	2275	2435
OA CFM	0	0
RL Voltage	-	208/209/209
RL Amperage	-	5.4/5.6/5.4
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	0%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	24

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	2	2
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208-230/460
Rated Amperage	-	5.8/2.9

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.20”
Fan Suction SP	-	-0.35”
Fan Discharge SP	-	0.40”
Total ESP	1.2"	0.60"
Fan Total SP	-	0.75"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.0”
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	8.0”
Fan Sheave Bore	-	1.125”
Belt CL Distance	-	19.0”
Num of Belts	-	1
Belt Size	-	A54
Belt Alignment	-	GOOD

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

Completed By: Ian Fuller

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU6 AREA:STOCKROOM

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2F2599704
Model Num	ZJ049E06D2B5BCA2R2	ZJ049E06D2B5BCA2R2
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X20.5
Num Final Filter 1	-	4
Final Filter Size 1	-	16X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	CENTURY
Frame	-	56HZ
Horsepower	1.50	1.5
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208-230/460
Rated Amperage	-	5.0/2.5

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4.25”
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	6.0”
Fan Sheave Bore	-	0.875”
Belt CL Distance	-	17.0”
Num of Belts	-	1
Belt Size	-	A46
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	1400	1489
SF RPM	1001	914
RA CFM	1300	1380
OA CFM	100	109
RL Voltage	-	210/208/209
RL Amperage	-	4.7/4.6/4.8
SF Rotation	-	CCW
RA Damper Position	-	95%
Min OA Damper Position	-	5%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	24

Performance Data		
	Design	**Actual**
MA Plenum SP	-	0.58"
Fan Suction SP	-	0.84"
Fan Discharge SP	-	0.62"
Total ESP	1.2"	1.2"
Fan Total SP	-	1.46"

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

Completed By: Ian Fuller

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU7 AREA:FRONT SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2F2632547
Model Num	ZJ061E06D2B5GCA2R3	ZJ061E06D2B5GCA2R3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.5X20
Num Final Filter 1	-	4
Final Filter Size 1	-	16X24X2

Test Data		
	Design	**Actual**
SF CFM	1750	1868
SF RPM	1035	1129
RA CFM	1650	1759
OA CFM	100	109
RL Voltage	-	208/211/210
RL Amperage	-	6.1/6.3/6.4
SF Rotation	-	CCW
RA Damper Position	-	95%
Min OA Damper Position	-	5%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	24

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	2	2
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208-230/460
Rated Amperage	-	6.6-6.8/3.4

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.68”
Fan Suction SP	-	-1.06”
Fan Discharge SP	-	0.69”
Total ESP	1.2"	1.37"
Fan Total SP	-	1.75"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.0”
Motor Bore Size	-	0.875”
Motor Sheave SetPt	-	3 TIRNS OUT
Fan Sheave Size	-	7.0”
Fan Sheave Bore	-	1.125”
Belt CL Distance	-	18.0”
Num of Belts	-	1
Belt Size	-	UNLABELED
Belt Alignment	-	GOOD

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

Completed By: Ian Fuller

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF1 AREA:OFFICE

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SP-250	SP-250
Serial Num	-	N/L
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	300	-
Fan RPM	540	NA
Fan Rotation	-	CW
System SetPt	-	NA
Total ESP	0.375"	0

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	1/6	N/L
Motor Rpm	-	N/L
Phase	1	N/L
Voltage (rated)	115	N/L
Amperage (rated)	-	N/L
Service Factor	-	N/L

Completed By: Ian Fuller

Notes: NOT OPERATIONAL

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF2 AREA:BREAKROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SP-250	SP-A290-QD
Serial Num	-	18934097
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	300	274
Fan RPM	540	DD
Fan Rotation	-	CW
Motor RPM	-	DD
Total ESP	0.375"	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	1/6	N/L
Motor Rpm	-	N/L
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.72
Service Factor	-	N/L

Completed By: Ian Fuller

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF3 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SP-226	SP-A290-QD
Serial Num	-	18934096
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	250	243
Fan RPM	1555	DD
Fan Rotation	-	CW
Motor RPM	-	DD
Total ESP	0.375"	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	1/20	N/L
Motor Rpm	-	N/L
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.72
Service Factor	-	N/L

Completed By: Brianna Biggs

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF4 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SP-250	SP-A410-QD
Serial Num	-	18954025
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	405	368
Fan RPM	1000	DD
Fan Rotation	-	CW
Motor RPM	-	DD
Total ESP	0.125"	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	N/L
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.74
Service Factor	-	N/L

Completed By: Ian Fuller

Notes:

National TAB

Project: 01-09-23 WALGREENS #4708 - HAINES CITY, FL

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF5 AREA:PHOTO

Unit Data		
	Design	**Actual**
MFG	GREENECK	GREENECK
Model Num	SP-260	SP-260
Serial Num	-	N/L
Type	CEILING	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	750	0
Fan Rotation	-	CW
System SetPt	-	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	NEMA
Frame	-	N/L
Horsepower	1/6	N/L
Motor Rpm	1	N/L
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	N/L
Service Factor	-	N/L

Completed By: Ian Fuller

Notes: NOT OPERATIONAL