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: 01/16/2023

PROJECT

01-09-23 WALGREENS #03606 - SARASOTA,FL

6465 S TAMIAMI TRL

SARASOTA, FL 34231

Client

Walgreens

200 WILMOT RD

DEERFIELD, IL 60015

National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,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.

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.

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.

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01-09-23 WALGREENS #03606 - SARASOTA,FL

Project Issue Information

Issue Name : EF#3 controller is broken

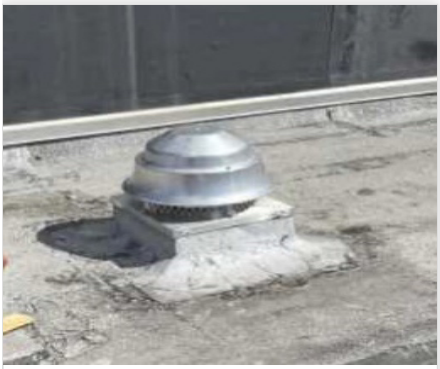
Description : Speed controller is not functional. Airflow is 503 CFM out of 255 CFM design. Unable to reduce airflow within design.

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

Status : Open

Originated Date : 02/23/2023 - Ian Fuller - National TAB

Project Issue File Details



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01-09-23 WALGREENS #03606 - SARASOTA,FL

Project Issue Information

Issue Name : RTU Discharge temperatures

Description : RTU-1, 2, 3, & 4 discharge air temperatures are above the 55 degree target. They were measured as 59, 62, 59, & 61, respectively. Outdoor air temperature at the time of testing was 81 degrees.

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

Status : Open

Originated Date : 11/01/2022 - Stephen Tassinaro - National TAB

Project Issue Response Details

- **02/24/2023 National TAB - Will Turnbough**
  - Spoke with Jason P and he said it is possibly an issue with the refrigeration side and that the installer needs to verify the systems are charged properly.

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	REAR SALES	3500	3354	2850	2498	650	856	18.6%	25.5%						
RTU-2	FRONT SALES	5250	5323	4525	4519	725	804	13.8%	15.1%						
RTU-3	PHARMACY	1750	1260	1750	1260	0	0	0.0%	0.0%						
EF-2	RESTROOMS													150	152
EF-3	EMPLOYEE OFFICE													255	503
EF-6	SALES													790	754
TOTALS		10500	9937	9125	8277	1375	1660			0	0	0	0	1195	1409

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1375	1660
TOTAL EXHAUST	1195	1409
NET AIRFLOW	180	251

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.018"
SIDE	
REAR	
AVERAGE	**0.018**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

NOTES:

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-4	LIQUOR STORE	1750	1717	1128	1036	622	681	35.5%	39.7%						
EF-4	EMPLOYEE BREAK RM													150	143
EF-5	LIQUORE STOCK RM													450	423
TOTALS		1750	1717	1128	1036	622	681			0	0	0	0	600	566

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	622	681
TOTAL EXHAUST	600	566
NET AIRFLOW	22	115

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.013
SIDE	
REAR	
AVERAGE	**0.013**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

NOTES:

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01-09-23 WALGREENS #03606 - SARASOTA,FL

CheckList Information

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

CheckList Item Details

STORE FRONT

FuseITdd699704a18f4f6...

RTU-1

FuseIT820129d4d77946f...

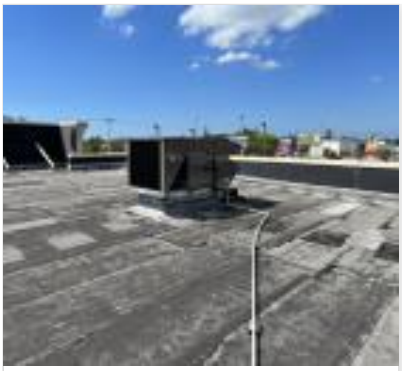
RTU-2

FuseIT38c95b12d14a41b...

RTU-3

FuseIT94162709d243455...

RTU-4



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EF-2

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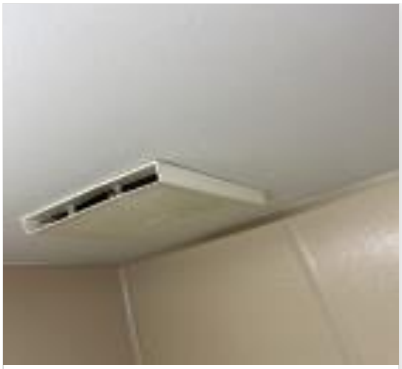
EF-3

IMG_5627.jpg

EF-4



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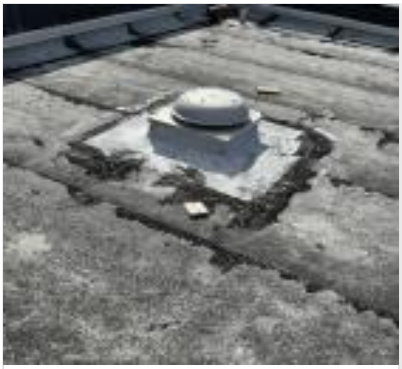
EF-6

FuseIT4e63095509d7481...

EF-7



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SF-1

IMG_5618.jpg

Notes/Comments :

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01-09-23 WALGREENS #03606 - SARASOTA,FL

CheckList Information

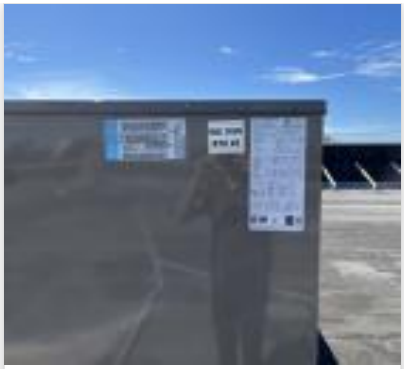
Name :	TECH - 01 RTU INSTALLATION CHECKLIST	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

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

FuseITad71b24c5dcf41c...



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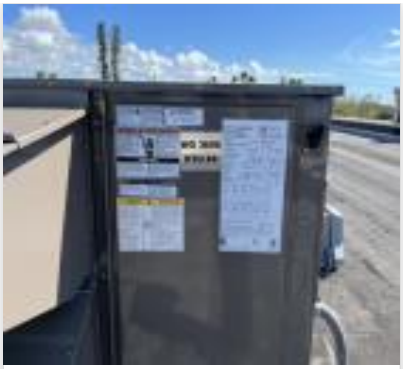

File.jpeg

Roof is clear of debris.	Pass
Maintenance access for all unit access panels is acceptable and panels open freely.	Pass
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	(RESOLVED) COSTGARD PIPING IS NOT CEMENTED.
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)	NO MESSAGES DISPLAYED ON PANEL

FuseIT74e71a560cca4cb...

FuseITcb1c480ceeae4a1...

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:	NO OCP WIRES LANDED

Notes/Comments :

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01-09-23 WALGREENS #03606 - SARASOTA,FL

CheckList Information

Name : TECH - 02 EXHAUST FANS INSPECTIONS **Status :** NotSubmitted

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	N/A DIRECT DRIVE
Speed controller installed and functional (direct drive)	EMPLOYEE OFFICE SPEED CONTROLLER NOT FUNCTIONAL
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	Fail
Additional Comments:	NOT ALL FANS ARE OPERATIONAL DUE TO CONTROLS

Notes/Comments :

Comfort. Under control.

01-09-23 WALGREENS #03606 - SARASOTA,FL

CheckList Information

Name : TECH - 03 START-UP CONTROLS PROGRAMMING **Status :** NotSubmitted

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	Pass
Details-HGR-Setup-HGRAlt-En = Yes	Pass

Details - HGR-Setup-HGRUnocc-En = Yes	Pass
Details-HGR-Setup-Mode = No	Pass
Additional Comments:	

Notes/Comments :

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01-09-23 WALGREENS #03606 - SARASOTA,FL

CheckList Information

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

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.	
(If Applicable) 2 Stage Thermostat to 4 Stage Unit meets detail in start-up binder.	
(If Applicable) 4 Stage Thermostat to 4 Stage Unit meets detail in start-up binder.	
(If Applicable) 3 Stage Thermostat wiring meets detail in start-up binder.	
(If Applicable) 3 Stage Thermostat with Humidity sensor wiring meets detail in start-up binder.	PASS RTU 2

(If Applicable) EH Thermostat with SCR control wiring meets detail in start-up binder.	
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 #03606 - SARASOTA,FL

CheckList Information

Name : TECH - 05 TAB CHECKLIST

Status : NotSubmitted

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)	RTU-1 and 2 - Pass
Verify amp draw of motor is within unit specification, not operating in overamped condition.	Pass
Sales floor temperature and humidity measurement	74.6F / 45.8% RH
Pharmacy temperature and humidity measurement	71.2F / 44.8% RH
Stock Room temperature and humidity measurement	74.1F / 46.5% RH
Outdoor air temperature and humidity measurement	79.8F / 35.6% RH

Additional Comments:

Notes/Comments :

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01-09-23 WALGREENS #03606 - SARASOTA,FL

CheckList Information

Name :	TECH - 06 FUNCTIONAL TESTS	**Status :**	NotSubmitted
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.	RTU 1 - 59F, RTU 2 - 62F, RTU 3 - 59F RTU4 - 61F
After 10 minutes, Discharge air temperature is below 55 degrees.	Fail
Cooling mode is operational	Pass
Additional Comments:	Space comfortable in current conditions
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.	RTU 1 - 85F, RTU 2 - 88F, RTU4 - 86 Turned the units off as soon as discharge temperatures were above 85 degrees to prevent complaints in the store.
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	Pass
If fan has VFD, the fan increases speed.	Pass
Document the discharge air temperature.	RTU 2 - 72F
Dehumidification Mode is operational. (Pass/Fail/NA)	PASS
Additional Comments:	
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 #03606 - SARASOTA,FL

CheckList Information

Name : TECH - 07 TEMPERATURE SETPOINTS

Status : NotSubmitted

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 :

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01-09-23 WALGREENS #03606 - SARASOTA,FL

CheckList Information

Name :	TECH - 08 ENTRANCE HEATERS	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

Sensor is located within 15' of entrance area	NA
Confirm proper operation of entrance heater and associated controls	NA
Balance supply air quantity to manufacturer recommended supply airflow.	NA
Confirm listed temperature rise and discharge air temperature based on approved BOM/submittal	NA

Notes/Comments :

NO ENTRANCE HEATERS AT THIS LOCATION (SOUTH WEST FLORIDA)

National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: AHU/RTU

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Asset: RTU1 AREA:REAR SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2K2935530
Model Num	ZT120E18R2B5GCB2R1	ZT120E18R2B5GCB2R1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X20.75
Num Final Filter 1	-	4
Final Filter Size 1	-	20X24X2

Test Data		
	Design	**Actual**
SF CFM	3500	3354
SF RPM	971	1122
RA CFM	2850	2613
OA CFM	650	856
RL Voltage	-	207/208/209
RL Amperage	-	8.3 VFD
SF Rotation	-	CW
RA Damper Position	-	77%
Min OA Damper Position	-	23%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR RELIANCE
Frame	-	56HZ
Horsepower	3.45	3.0
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	-	-0.59”
Fan Suction SP	-	-0.87”
Fan Discharge SP	-	1.01”
Total ESP	0.6"	1.60"
Fan Total SP	-	1.88"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4.75”
Motor Bore Size	-	7/8”
Motor Sheave SetPt	-	0 TURNS OUT
Fan Sheave Size	-	7 3/8”
Fan Sheave Bore	-	1.0”
Belt CL Distance	-	18.75”
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: Stephen Tassinaro

Notes:

National TAB

Project:01-09-23 WALGREENS #03606 - SARASOTA,FL

AHU/RTU

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Diffuser Supply (GRD)

RTU1/REAR SALES

Asset							
Asset Name	**Location**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SALES	762	1	552	651	691	90.7
SGRD2	SALES	762	1	613	723	768	100.8
SGRD3	SALES	762	1	549	648	687	90.2
SGRD4	SALES	762	1	600	708	752	98.7
SGRD5	TECH ROOM	104	1	85	100	106	101.9
SGRD6	TRAINING	138	1	109	129	137	99.3
SGRD7	OFFICE	208	1	170	201	213	102.4

Completed By: Brianna Biggs on

National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: AHU/RTU

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Asset: RTU2 AREA:FRONT SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2H2828721
Model Num	ZT180C00R2B5GCL2C1	ZT180C00R2B5GCL2C1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	6
OA Filter Size 1	-	14.75X26
Num Final Filter 1	-	4
Final Filter Size 1	-	16X20X2
Num Final Filter 2	-	4
Final Filter Size 2	-	16X25X2

Test Data		
	Design	**Actual**
SF CFM	5250	5323
SF RPM	868	958
RA CFM	4525	4302
OA CFM	725	804
RL Voltage	-	207/208/209
RL Amperage	-	14.2 VFD
SF Rotation	-	CCW
RA Damper Position	-	86%
Min OA Damper Position	-	14%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR RELIANCE
Frame	-	213T
Horsepower	8.63	7.5
Motor Rpm	-	1770
Phase	3	3
Rated Voltage	230	230/460//190/380
Rated Amperage	-	19.4/9.7//16.4/8.2

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.35”
Fan Suction SP	-	-0.86
Fan Discharge SP	-	0.80”
Total ESP	1.2"	1.11"
Fan Total SP	-	1.66"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	VP60
Motor Bore Size	-	1 3/8”
Motor Sheave SetPt	-	3.0 TURNS OUT
Fan Sheave Size	-	BK100
Fan Sheave Bore	-	1 3/16”
Belt CL Distance	-	29.0”
Num of Belts	-	1
Belt Size	-	BX78
Belt Alignment	-	GOOD

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

Completed By: Stephen Tassinaro

Notes:

National TAB

Project:01-09-23 WALGREENS #03606 - SARASOTA,FL

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU2/FRONT SALES

Asset							
Asset Name	**Location**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	VESTIBULE	184	1	201	185	204	110.9
SGRD2	VESTIBULE	184	1	188	173	190	103.3
SGRD3	VESTIBULE	184	1	192	178	196	106.5
SGRD4	PHOTO	0	1	0	0	0	-
SGRD5	OFFICE	690	1	255	688	759	110.0
SGRD6	PASSAGE 1	140	1	168	122	135	96.4
SGRD7	SALES	967	1	801	855	943	97.5
SGRD8	SALES	967	1	835	839	926	95.8
SGRD9	SALES	967	1	822	864	954	98.7
SGRD10	SALES	967	1	901	921	1016	105.1

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Asset	Notes
SGRD4	NOT INSTALLED

National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU3 AREA:PHARMACY

Unit Data		
	Design	**Actual**
MFG	TRANE	YORK
Serial Num	-	N1B8537702
Model Num	TCD048C3	ZYE05A2A1AA1A111A2
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X16
Num Final Filter 1	-	2
Final Filter Size 1	-	36X16.5

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Frame	-	N/L
Horsepower	3	N/L
Motor Rpm	-	N/L
Phase	3	1
Rated Voltage	208/230	208/230
Rated Amperage	-	8.4/7.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	DD
Motor Bore Size	-	DD
Motor Sheave SetPt	-	DD
Fan Sheave Size	-	DD
Fan Sheave Bore	-	DD
Belt CL Distance	-	DD
Num of Belts	-	DD
Belt Size	-	DD
Belt Alignment	-	DD

Test Data		
	Design	**Actual**
SF CFM	1400	1260
SF RPM	-	SPEED TAP 5 - HIGH SPEED
RA CFM	1400	1260
OA CFM	0	0
RL Voltage	-	208/209/208
RL Amperage	-	3.6 AVG
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	0%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.60”
Fan Suction SP	-	-0.69”
Fan Discharge SP	-	0.60”
Total ESP	-	1.20"
Fan Total SP	-	1.29"

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

Completed By: Stephen Tassinaro

Notes: AIRFLOW IS ON LOW END OF TOLERANCE DUE TO TRANSITION IN CURB ADAPTER. MOTOR TAP SET TO HIGH SPEED.

Diffuser Supply (GRD)

RTU3/PHARMACY

Asset							
Asset Name	**Location**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	WAITING AREA	131	1	127	121	121	92.4
SGRD2	PHARMACY	175	1	176	172	172	98.3
SGRD3	PHARMACY	263	1	233	230	230	87.5
SGRD4	PHARMACY	306	1	246	254	254	83.0
SGRD5	PHARMACY	263	1	138	234	234	89.0
SGRD6	EMPLOYEE RM	175	1	206	171	171	97.7
SGRD7	PASSAGE 2	88	1	81	78	78	88.6

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National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU4 AREA:LIQUOR STORE

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2H2930142
Model Num	ZJ061E06D2B5GCB2R3	ZJ061E061E06D2B5GCB2R3
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

Test Data		
	Design	**Actual**
SF CFM	1750	1717
SF RPM	-	1040
RA CFM	1128	1036
OA CFM	622	681
RL Voltage	-	208/209/210
RL Amperage	-	5.3/5.5/5.6
SF Rotation	-	CW
RA Damper Position	-	86%
Min OA Damper Position	-	14%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	2.30	2.0
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	230	208-230/460
Rated Amperage	-	6.6-6.8/3.4

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.31”
Fan Suction SP	-	-0.55”
Fan Discharge SP	-	0.55”
Total ESP	1.3"	0.86”
Fan Total SP	-	1.10”

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	VP56
Motor Bore Size	-	7/8”
Motor Sheave SetPt	-	5.0 TURNS OUT
Fan Sheave Size	-	7.25”
Fan Sheave Bore	-	1.0”
Belt CL Distance	-	17.5”
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

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Notes: SERVICE DISCONNECT NOT FUNCTIONAL AT END OF BALANCING. UNIT WOULD NOT TURN ON TO COMPLETE TAB.

National TAB

Project:01-09-23 WALGREENS #03606 - SARASOTA,FL

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU4/LIQUOR STORE

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	LIQUOR			700	1	747	687	687	98.1
SGRD2	LIQUOR			525	1	604	534	534	101.7
SGRD3	LIQUOR			525	1	518	496	496	94.5

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National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: FAN - Exhaust

Asset: EF2 AREA:RESTROOMS

Unit Data		
	Design	**Actual**
MFG	GREENHECK	PENNBARRY
Model Num	GB-7-4	DX11Q
Serial Num	-	H21AB07944
Type	DOWNBLAST	CENTRIFUGAL
Configuration	HORIZONTAL	DOWNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Frame	-	N/L
Horsepower	1/4	1/5
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.0
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	150	152
Fan RPM	1625	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	122
RL Amperage	-	1.2
Total ESP	0.125"	0.19”
Fan Inlet SP	-	-0.19”
Fan Discharge SP	-	ATM

Completed By: Stephen Tassinaro

Notes:

National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: FAN - Exhaust

Asset: EF3 AREA:EMPLOYEE OFFICE

Unit Data		
	Design	**Actual**
MFG	GREENHECK	PENNBARRY
Model Num	GB-7-4	DX11Q
Serial Num	-	F22SZ17133
Type	DOWNBLAST	CENTRIFUGAL
Configuration	HORIZONTAL	DOWNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Frame	-	N/L
Horsepower	1/4	1/5
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.0
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	255	503
Fan RPM	1465	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	122
Total ESP	0.125"	NA
Fan Discharge SP	-	ATM

Completed By: Stephen Tassinaro

Notes:

National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: FAN - Exhaust

Asset: EF4 AREA:EMPLOYEE BREAK ROOM

Unit Data		
	Design	**Actual**
MFG	BROAN	BROAN
Model Num	676	676
Serial Num	-	N/L
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	1/10	N/L
Motor Rpm	-	N/L
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	1.3
Service Factor	-	N/L

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	DD
Motor Bore Size	-	DD
Motor Sheave SetPt	-	DD
Fan Sheave Size	-	DD
Fan Sheave Bore	-	DD
Belt CL Distance	-	DD
Num of Belts	-	DD
Belt Size	-	DD

Test Data		
	Design	**Actual**
CFM	150	143
Fan RPM	-	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
RL Voltage	-	121
RL Amperage	-	1.0
Suction ESP	-	ATM
Discharge ESP	-	INACCESSIBLE
Total ESP	0.125"	-

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Notes:

National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: FAN - Exhaust

Asset: EF5 AREA:LIQUOR STOCK ROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	PENNBARRY
Model Num	G-080-G	DX11Q
Serial Num	-	F22SZ17132
Type	DOWNBLAST	CENTRIFUGAL
Configuration	HORIZONTAL	DOWNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Frame	-	N/L
Horsepower	1/4	1/5
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.0
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	450	423
Fan RPM	1050	DD
Fan Rotation	-	CW
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	115
RL Amperage	-	2.2
Total ESP	0.125"	0.23”
Fan Inlet SP	-	-0.23”
Fan Discharge SP	-	ATM

Completed By: Stephen Tassinaro

Notes:

National TAB

Project: 01-09-23 WALGREENS #03606 - SARASOTA,FL

System/Unit: FAN - Exhaust

Asset: EF6 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	GREENHECK	PENNBARRY
Model Num	G-090-G	DX11Q
Serial Num	-	H21AB07934
Type	DOWNBLAST	CENTRIFUGAL
Configuration	HORIZONTAL	DOWNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Frame	-	N/L
Horsepower	1/4	1/5
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.0
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	790	754
Fan RPM	1160	DD
Fan Rotation	-	CORRECT
Motor RPM	-	DD
System SetPt	-	SPEED CONTROLLER MAXIMIZED
RL Voltage	-	121
RL Amperage	-	2.6
Total ESP	0.125"	0.42”
Fan Inlet SP	-	-0.42”
Fan Discharge SP	-	ATM

Completed By: Stephen Tassinaro

Notes: SERVES WOMEN'S RR AND SALES FLOOR. TURNS ON BY MOTION SENSOR IN THE WOMEN'S RR.