

**Report By:**

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



**Report: TAB REPORT**  
**Function: Test, Adjust, & Balance**  
**Date: 10/17/2024**  
**Completed By: National TAB**

# PROJECT

## 10-14-24 ULTA 1697 SELMA, NC

Eastfield Crossing

Selma , NC 27576

**Client**

Rectenwald Brothers Construction

# National TAB

Project: 10-14-24 ULTA 1697 SELMA, NC

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## 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 and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.

## Issue List

- EF-1 not powered
- EF-2 Restroom fan unable to access
- RTU -4 is currently an alarm.
- RTU 2 hitting max amps with low airflow
- RTU-1 Motor at max amps. The Pulley is at 2 turns out with belt over hang.
- RTU-3 missing damper on supply diffuser SGRD2 & 7
- RTU-4 outside filters not properly attached
- Unable to safely reach damper above ceiling on RTU-2



**10-14-24 ULTA 1697 SELMA, NC**

**Project Issue Information**

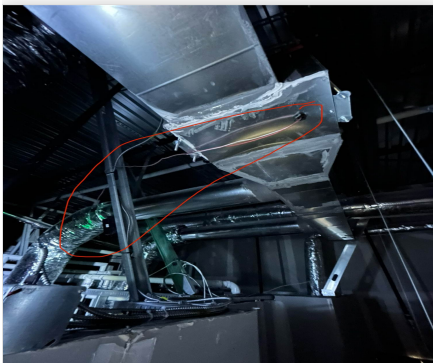
**Issue Name :** EF-1 not powered  
**Description :** On exhaust fan 1. I am not getting any flow from either supply. The dampers are 100% open.  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** Urgent                                      **Asset Tag :**  
**Originated Date :** 10/14/2024 - Jearod Ferrette - National TAB

**10-14-24 ULTA 1697 SELMA, NC**

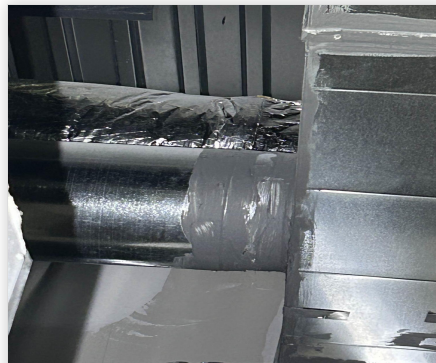
**Project Issue Information**

**Issue Name :** EF-2 Restroom fan unable to access  
**Description :** I am unable to reach the controller for the restroom exhaust fan. The control is above hard ceiling. I am unable to reach from other side with ladder due to piping obstructing access. There are no dampers on either exhaust duct or face. The unit is running at 117% of design.  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** High                                      **Asset Tag :**  
**Originated Date :** 10/14/2024 - Jearod Ferrette - National TAB

Project Issue File Details



10/14/2024



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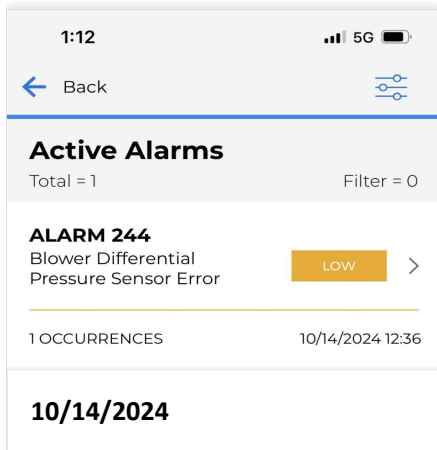
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### 10-14-24 ULTA 1697 SELMA, NC

#### Project Issue Information

**Issue Name :** RTU -4 is currently an alarm.  
**Description :** RTU-4 alarm code 244 (Blower differential pressure sensor error)  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** High                                      **Asset Tag :**  
**Originated Date :** 10/14/2024 - Jearod Ferrette - National TAB

#### Project Issue File Details



10-14-24 ULTA 1697 SELMA, NC

**Project Issue Information**

**Issue Name :** RTU 2 hitting max amps with low airflow  
**Description :** RTU-2 unit is running at Max amps. The pulley is 5 turns out. After reading all supply diffusers. We are currently at 68% total airflow of design.  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** Urgent                                      **Asset Tag :**  
**Originated Date :** 10/15/2024 - Jearod Ferrette - National TAB

Project Issue File Details



10/15/2024



**10-14-24 ULTA 1697 SELMA, NC**

**Project Issue Information**

**Issue Name :** RTU-1 Motor at max amps. The Pulley is at 2 turns out with belt over hang.

**Description :** RTU-1 unit is running at Max amps. The pulley is 2 turns out. After reading all supply diffusers. We are currently at 84% total airflow of design.

**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein

**Status :** Open

**Priority :** Urgent                                      **Asset Tag :**

**Originated Date :** 10/15/2024 - Jearod Ferrette - National TAB

Project Issue File Details



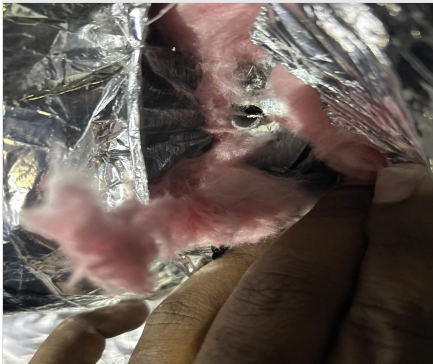
10/15/2024

**10-14-24 ULTA 1697 SELMA, NC**

**Project Issue Information**

**Issue Name :** RTU-3 missing damper on supply diffuser SGRD2 & 7  
**Description :** Missing supply damper on RTU 3 SGRD 2 & SGRD 7  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** High                                      **Asset Tag :**  
**Originated Date :** 10/15/2024 - Jearod Ferrette - National TAB

Project Issue File Details



10/15/2024

**10-14-24 ULTA 1697 SELMA, NC**

**Project Issue Information**

**Issue Name :** RTU-4 outside filters not properly attached  
**Description :** RTU 4 outside filters are not properly attached to unit is being held by tape.  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** Medium                                      **Asset Tag :**  
**Originated Date :** 10/14/2024 - Jearod Ferrette - National TAB

Project Issue File Details



10/14/2024

**10-14-24 ULTA 1697 SELMA, NC**

**Project Issue Information**

**Issue Name :** Unable to safely reach damper above ceiling on RTU-2  
**Description :** On RTU-2 SGRD 24 Unable to access damper on supply diffuser safely. There is a makeup Shelf that has power ran to it, unable to move the shelf to assess ceiling tile.  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** Low    **Asset Tag :**  
**Originated Date :** 10/15/2024 - Jearod Ferrette - National TAB

Project Issue File Details



10/15/2024

## CheckList List

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

**10-14-24 ULTA 1697 SELMA, NC**

**CheckList Information**

**Name :** SITE PICTURES **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 10/14/2024 - Wale Odofin - National TAB

**Completed Date :** 10/16/2024 - Jearod Ferrette - National TAB

**CheckList Item Details**

STORE FRONT

Comment:



10/14/2024

RTU-1

Comment:



10/14/2024

---

**RTU-2**

**Comment:**

---



10/14/2024

---

**RTU-3**

**Comment:**

---

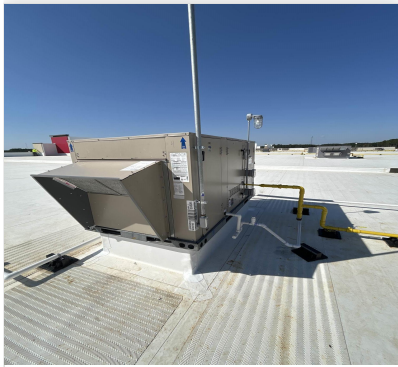


10/14/2024

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**RTU-4**

**Comment:**



10/14/2024

---

**EF-1**

**Comment:**



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EF-2

Comment:



10/16/2024



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### 10-14-24 ULTA 1697 SELMA, NC

#### CheckList Information

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

**Assigned Organization :** National TAB      **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 10/14/2024 - Wale Odofin - National TAB

**Completed Date :** 10/14/2024 - Jearod Ferrette - 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?      N/A

Comment:

Hoods are wired and have power?      Yes

Comment:

Hood is free of alarms?      N/A

Comment:

Thermostats have power?      N/A

Comment:

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

**Comment:**

YES

### 10-14-24 ULTA 1697 SELMA, NC

#### CheckList Information

**Name :** TECH - STEP 2: UNIT DATA & EVAL. **Status :** Not Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 10/14/2024 - Wale Odofin - 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? Yes

Comment:

DCV Max damper opening position is set to minimum? No

Comment:

ALL RTU'S DAMPERS ARE NON-OPERATIONAL. RTU 1/2 ARE MANUALLY SET AND MARKED



10/16/2024

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

N/A

Comment:

Motors are all operating below the FLA rating?

No

Comment:

RTU-2 IS RATED FOR 4 AMPS, IT IS CURRENTLY RUNNING AT 4.24 AMPS WITH MAX TURNS OUT ON PULLEY.

Are belts tight?

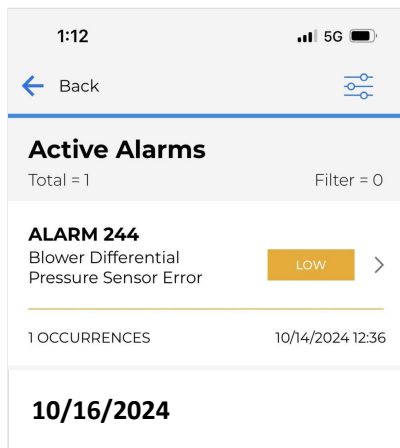
Comment:

YES

If direct drive unit is the speed controller working.

Comment:

NO. RTU-4 HAS ALARM CODE 244 (BLOWER DIFFERENTIAL PRESSURE SENSOR ERROR) UNABLE TO LOWER SPEED TO UNIT.



Is gas piping installed and valves turned on?

No

Comment:

INSTALLED BUT NOT TURNED ON

Unit free of noticeable noise and vibration

Yes

Comment:

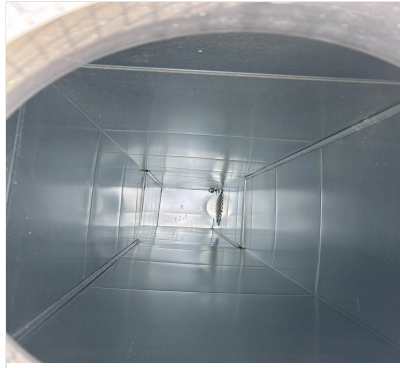
EF's

Rotation is correct?

No

**Comment:**

ON EF-1 THERE IS NOT A ROOF TOP MOTOR ON SITE, I DID NOT SEE A INLINE FAN ALSO. ON EF-2 UNABLE TO ACCESS MOTOR DUE TO HARD CEILING AND DUCTWORK PLACEMENT.



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**Belts are tight?**

**Comment:**

NA

**Grease cup installed on hood fan?**

N/A

**Comment:**

**Hinge kit installed installed on hood fan?**

N/A

**Comment:**

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

N/A

**Comment:**

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

N/A

**Comment:**

**There is no major leakage around base of fan?**

N/A

**Comment:**

**Is the motor operating below the motor FLA rating?**

No

**Comment:**

UNABLE TO VERIFY DUE TO MOTOR PLACEMENT AND NO ACCESS

---

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

No

---

**Comment:**

---

**Unit free of noticeable noise and vibration?**

Yes

---

**Comment:**

---

**MUA**

---

**Rotation is correct?**

N/A

---

**Comment:**

---

**Gas piping is installed and valves are in on position?**

N/A

---

**Comment:**

---

**Heater tested and is functional?**

N/A

---

**Comment:**

---

**Internal motorized damper is fully opening?**

N/A

---

**Comment:**

---

**Motor is operating below the FLA rating?**

N/A

---

**Comment:**

---

**Unit free of noticeable noise and vibration?**

N/A

---

**Comment:**

---

**HOODS**

---

**Kitchen equipment installed in proper places?**

N/A

---

**Comment:**

---

**Can kitchen equipment be turned on for final smoke test?**

N/A

Comment:

---

**DOCUMENTATION**

---

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

---

Comment:

---



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### 10-14-24 ULTA 1697 SELMA, NC

#### CheckList Information

**Name :** TECH - STEP 3: TEST, ADJUST AND BALANCE      **Status :** Completed

**Assigned Organization :** National TAB      **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 10/14/2024 - Wale Odofin - National TAB

**Completed Date :** 10/16/2024 - Jearod Ferrette - 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:

NA



Thermostats are programmed?

N/A

Comment:



# National TAB

Project: 10-14-24 ULTA 1697 SELMA, NC

## System/Unit: AHU/RTU



Asset: RTU1

AREA:

| Unit Data           |           |            |
|---------------------|-----------|------------|
|                     | Design    | Actual     |
| MFG                 | LENNOX    | LENNOX     |
| Serial Num          | -         | 5622J03502 |
| Model Num           | LGM156U4E | LGM156U4E  |
| Type                | RTU       | RTU        |
| Configuration       | VERTICAL  | VERTICAL   |
| Num OA Filters 1    | -         | 3          |
| OA Filter Size 1    | -         | 14X23      |
| Num Final Filter 1  | -         | 6          |
| Final Filter Size 1 | -         | 24X24X2    |

| Motor Data     |        |           |
|----------------|--------|-----------|
|                | Design | Actual    |
| Motor MFG      | -      | INTERLINK |
| Frame          | -      | 56HZ      |
| Horsepower     | 3HP    | 3HP       |
| Motor Rpm      | 1750   | 1750      |
| Phase          | 3      | 3         |
| Rated Voltage  | 460V   | 460V      |
| Rated Amperage | 4A     | 4A        |

| Drive Data         |             |
|--------------------|-------------|
|                    | Actual      |
| Motor Sheave Size  | 3-5/8       |
| Motor Bore Size    | 7/8         |
| Motor Sheave SetPt | 2 TURNS OUT |
| Fan Sheave Size    | BK95        |
| Fan Sheave Bore    | 1-1/8       |
| Belt CL Distance   | 21-1/4      |
| Num of Belts       | 1           |
| Belt Size          | BX59        |
| Belt Alignment     | YES         |

| Test Data              |        |              |
|------------------------|--------|--------------|
|                        | Design | Actual       |
| SF CFM                 | 4500   | 3843         |
| SF RPM                 | -      | 664          |
| RA CFM                 | 3600   | 2970         |
| OA CFM                 | 900    | 873          |
| RL Voltage             | -      | 474/475/477  |
| RL Amperage            | -      | 3.41         |
| SF Rotation            | -      | CCW          |
| RA Damper Position     | -      | MANUALLY SET |
| Min OA Damper Position | -      | MANUALLY SET |
| Min OA Damper Type     | -      | ECON         |
| OA Enthalpy Setpt      | -      | 5            |

| Performance Data |        |        |
|------------------|--------|--------|
|                  | Design | Actual |
| MA Plenum SP     | -      | -0.42" |
| Fan Suction SP   | -      | -0.66" |
| Fan Discharge SP | -      | 0.30"  |
| Total ESP        | 1.00   | 0.72"  |
| Fan Total SP     | -      | 0.96"  |

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

## Unit Data - PHOTO LOG



IMG\_0492\_761978821.jp..



IMG\_0493\_2068760601.j..

Completed By: Jearod Ferrette on 10/16/2024

### Notes:

THIS UNIT IS RUNNING AT 3.4 APMS WITH 2 TURNS OUT. THE MOTOR BELT HAS OVERHANG ON THE PULLY AND TIGHT. CURRENTLY AT 84% DESIGN OF AIRFLOW. DIFFUSERS 3,8 AND 9 ARE READING LOW. ALL DAMPERS ARE 100% OPEN.

Written By: Jearod Ferrette on 10/16/2024



# National TAB

Project:10-14-24 ULTA 1697 SELMA, NC

## AHU/RTU



**Diffuser Supply (GRD)**

**RTU1/**

| Asset      |          |      |      |            |    |        |        |           |             |
|------------|----------|------|------|------------|----|--------|--------|-----------|-------------|
| Asset Name | Location | Type | Size | DESIGN CFM | AK | CFM(1) | CFM(2) | FINAL CFM | % to design |
| SGRD1      | VESTIBLE | SD-1 | 12"  | 350        | 1  | 352    | 352    | 352       | 100.6       |
| SGRD2      | VESTIBLE | SD-1 | 12"  | 370        | 1  | 390    | 390    | 390       | 105.4       |
| SGRD3      | VESTIBLE | SD-1 | 12"  | 350        | 1  | 181    | 181    | 181       | 51.7        |
| SGRD4      | VESTIBLE | SD-1 | 12"  | 365        | 1  | 349    | 349    | 349       | 95.6        |
| SGRD5      | VESTIBLE | SD-1 | 12"  | 365        | 1  | 361    | 361    | 361       | 98.9        |
| SGRD6      | VESTIBLE | SD-1 | 12"  | 350        | 1  | 328    | 328    | 328       | 93.7        |
| SGRD7      | VESTIBLE | SD-1 | 12"  | 350        | 1  | 321    | 321    | 321       | 91.7        |
| SGRD8      | VESTIBLE | SD-1 | 12"  | 200        | 1  | 57     | 57     | 57        | 28.5        |
| SGRD9      | VESTIBLE | SD-1 | 12"  | 365        | 1  | 185    | 185    | 185       | 50.7        |
| SGRD10     | VESTIBLE | SD-1 | 12"  | 365        | 1  | 345    | 345    | 345       | 94.5        |
| SGRD11     | VESTIBLE | SD-1 | 12"  | 350        | 1  | 343    | 343    | 343       | 98.0        |
| SGRD12     | VESTIBLE | SD-1 | 12"  | 350        | 1  | 329    | 329    | 329       | 94.0        |
| SGRD13     | VESTIBLE | SD-1 | 12"  | 370        | 1  | 312    | 312    | 312       | 84.3        |
| Total      |          |      |      | 4500       |    | 3853   | 3853   | 3853      | 85.62%      |



# National TAB

Project: 10-14-24 ULTA 1697 SELMA, NC

## System/Unit: AHU/RTU



Asset: RTU2

AREA:

| Unit Data           |           |            |
|---------------------|-----------|------------|
|                     | Design    | Actual     |
| MFG                 | LENNOX    | LENNOX     |
| Serial Num          | -         | 5622K03089 |
| Model Num           | LGM156U4M | LGM156U4M  |
| Type                | RTU       | RTU        |
| Configuration       | VERTICAL  | VERTICAL   |
| Num OA Filters 1    | -         | 3          |
| OA Filter Size 1    | -         | 14X23      |
| Num Final Filter 1  | -         | 6          |
| Final Filter Size 1 | -         | 24X24X2    |

| Motor Data     |        |           |
|----------------|--------|-----------|
|                | Design | Actual    |
| Motor MFG      | -      | INTERLINK |
| Frame          | -      | 56HZ      |
| Horsepower     | 3HP    | 3HP       |
| Motor Rpm      | 1750   | 1750      |
| Phase          | 3      | 3         |
| Rated Voltage  | 460V   | 460V      |
| Rated Amperage | 4A     | 4A        |

| Drive Data         |             |
|--------------------|-------------|
|                    | Actual      |
| Motor Sheave Size  | 3-5/8       |
| Motor Bore Size    | 7/8         |
| Motor Sheave SetPt | 3 TURNS OUT |
| Fan Sheave Size    | BK72        |
| Fan Sheave Bore    | 1-1/8       |
| Belt CL Distance   | 21-1/4      |
| Num of Belts       | 1           |
| Belt Size          | BX55        |
| Belt Alignment     | YES         |

| Test Data              |        |              |
|------------------------|--------|--------------|
|                        | Design | Actual       |
| SF CFM                 | 4800   | 3435         |
| SF RPM                 | -      | 736          |
| RA CFM                 | 3745   | 2347         |
| OA CFM                 | 1055   | 1088         |
| RL Voltage             | -      | 476/477/476  |
| RL Amperage            | -      | 4.2/4.1      |
| SF Rotation            | -      | CCW          |
| RA Damper Position     | -      | MANUALLY SET |
| Min OA Damper Position | -      | MANUALLY SET |
| Min OA Damper Type     | -      | ECON         |
| OA Enthalpy Setpt      | -      | 5            |

| Performance Data |        |        |
|------------------|--------|--------|
|                  | Design | Actual |
| MA Plenum SP     | -      | -0.44" |
| Fan Suction SP   | -      | -0.71" |
| Fan Discharge SP | -      | 0.30"  |
| Total ESP        | 1.00"  | 0.74"  |
| Fan Total SP     | -      | 1.01"  |

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

Completed By: Jearod Ferrette on 10/16/2024

Notes:

Traversed RTU-2 from the main drop and was reading 4245 CFM's. Suggest inspection for leakage due to difference in CFM's. DIFFUSER 24 DAMPER IS CLOSED AND UNACCESSILBE.

Written By: Jearod Ferrette on 10/16/2024



# National TAB

Project:10-14-24 ULTA 1697 SELMA, NC

## AHU/RTU



**Diffuser Supply (GRD)**

**RTU2/**

| Asset        |          |      |      |             |    |             |             |             |               |
|--------------|----------|------|------|-------------|----|-------------|-------------|-------------|---------------|
| Asset Name   | Location | Type | Size | DESIGN CFM  | AK | CFM(1)      | CFM(2)      | FINAL CFM   | % to design   |
| SGRD1        | SALES    | SD1  | 8"   | 200         | 1  | 140         | 140         | 140         | 70.0          |
| SGRD2        | SALES    | SD1  | 8"   | 200         | 1  | 144         | 144         | 144         | 72.0          |
| SGRD3        | SALES    | SD1  | 8"   | 200         | 1  | 145         | 145         | 145         | 72.5          |
| SGRD4        | SALES    | SD1  | 8"   | 200         | 1  | 129         | 129         | 129         | 64.5          |
| SGRD5        | SALES    | SD1  | 8"   | 200         | 1  | 156         | 156         | 156         | 78.0          |
| SGRD6        | SALES    | SD1  | 8"   | 200         | 1  | 134         | 134         | 134         | 67.0          |
| SGRD7        | SALES    | SD1  | 8"   | 200         | 1  | 141         | 141         | 141         | 70.5          |
| SGRD8        | SALES    | SD1  | 8"   | 200         | 1  | 159         | 159         | 159         | 79.5          |
| SGRD9        | SALES    | SD1  | 8"   | 200         | 1  | 103         | 103         | 103         | 51.5          |
| SGRD10       | SALES    | SD1  | 8"   | 200         | 1  | 176         | 176         | 176         | 88.0          |
| SGRD11       | SALES    | SD1  | 8"   | 200         | 1  | 147         | 147         | 147         | 73.5          |
| SGRD12       | SALES    | SD1  | 8"   | 200         | 1  | 146         | 146         | 146         | 73.0          |
| SGRD13       | SALES    | SD1  | 8"   | 200         | 1  | 146         | 146         | 146         | 73.0          |
| SGRD14       | SALES    | SD1  | 8"   | 200         | 1  | 158         | 158         | 158         | 79.0          |
| SGRD15       | SALES    | SD1  | 8"   | 200         | 1  | 146         | 146         | 146         | 73.0          |
| SGRD16       | SALES    | SD1  | 8"   | 200         | 1  | 139         | 139         | 139         | 69.5          |
| SGRD17       | SALES    | SD1  | 8"   | 200         | 1  | 157         | 157         | 157         | 78.5          |
| SGRD18       | SALES    | SD1  | 8"   | 200         | 1  | 160         | 160         | 160         | 80.0          |
| SGRD19       | SALES    | SD1  | 8"   | 200         | 1  | 166         | 166         | 166         | 83.0          |
| SGRD20       | SALES    | SD1  | 8"   | 200         | 1  | 165         | 165         | 165         | 82.5          |
| SGRD21       | SALES    | SD1  | 8"   | 200         | 1  | 149         | 149         | 149         | 74.5          |
| SGRD22       | SALES    | SD1  | 8"   | 200         | 1  | 154         | 154         | 154         | 77.0          |
| SGRD23       | SALES    | SD1  | 8"   | 200         | 1  | 142         | 142         | 142         | 71.0          |
| SGRD24       | SALES    | SD1  | 8"   | 200         | 1  | 33          | 33          | 33          | 16.5          |
| <b>Total</b> |          |      |      | <b>4800</b> |    | <b>3435</b> | <b>3435</b> | <b>3435</b> | <b>71.56%</b> |



# National TAB

Project: 10-14-24 ULTA 1697 SELMA, NC

## System/Unit: AHU/RTU



Asset: RTU3

AREA:

| Unit Data           |           |            |
|---------------------|-----------|------------|
|                     | Design    | Actual     |
| MFG                 | LENNOX    | LENNOX     |
| Serial Num          | -         | 5622J06858 |
| Model Num           | LGM120U4E | LGM120U4E  |
| Type                | RTU       | RTU        |
| Configuration       | VERTICAL  | VERTICAL   |
| Num OA Filters 1    | -         | 2          |
| OA Filter Size 1    | -         | 14X23      |
| Num Final Filter 1  | -         | 4          |
| Final Filter Size 1 | -         | 20X25X2    |

| Motor Data     |        |        |
|----------------|--------|--------|
|                | Design | Actual |
| Motor MFG      | -      | NL     |
| Frame          | -      | NL     |
| Horsepower     | 3.75HP | 3.75HP |
| Motor Rpm      | NL     | NL     |
| Phase          | 3      | 3      |
| Rated Voltage  | 460V   | 460V   |
| Rated Amperage | NL     | NL     |

| Drive Data         |        |
|--------------------|--------|
|                    | 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                 | 3200   | 3241         |
| SF RPM                 | -      | 2940         |
| RA CFM                 | 2375   | 2347         |
| OA CFM                 | 825    | 901          |
| RL Voltage             | -      | 478/477/477  |
| RL Amperage            | -      | 1.1/1.3/1.2  |
| SF Rotation            | -      | CCW          |
| RA Damper Position     | -      | MANUALLY SET |
| Min OA Damper Position | -      | MANUALLY SET |
| Min OA Damper Type     | -      | ECON         |
| OA Enthalpy Setpt      | -      | 5            |

| Performance Data |        |        |
|------------------|--------|--------|
|                  | Design | Actual |
| MA Plenum SP     | -      | -0.11" |
| Fan Suction SP   | -      | -0.67" |
| Fan Discharge SP | -      | 0.53"  |
| Total ESP        | 1.00"  | 0.64"  |
| Fan Total SP     | -      | 1.2"   |

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

Completed By: Jearod Ferrette on 10/16/2024

Notes:

RTU-3 SUPPLY DIFFUSERS ARE MISSING DAMPERS ON SGRD 3 AND SGRD 7. THIS UNIT IS SET TO TOTAL DESIGN AIRFLOW. ONCE DAMPERS ARE INSTALLED, IT CAN BE BALANCED. HIGH WINDS OF ROOF MAY HAVE AFFECTED THE OUTSIDE AIR MEASUREMENT.

Written By: Jearod Ferrette on 10/16/2024



# National TAB

Project:10-14-24 ULTA 1697 SELMA, NC



## AHU/RTU

### Diffuser Supply (GRD)

#### RTU3/

| Asset      |          |      |      |            |    |        |        |           |             |
|------------|----------|------|------|------------|----|--------|--------|-----------|-------------|
| Asset Name | Location | Type | Size | DESIGN CFM | AK | CFM(1) | CFM(2) | FINAL CFM | % to design |
| SGRD1      | SALES    | SD1  | 10"  | 275        | 1  | 362    | 333    | 273       | 99.3        |
| SGRD2      | SALES    | SD1  | 10"  | 275        | 1  | 412    | 372    | 393       | 142.9       |
| SGRD3      | SALES    | SD1  | 10"  | 275        | 1  | 343    | 315    | 244       | 88.7        |
| SGRD4      | SALON    | SD1  | 10"  | 350        | 1  | 321    | 287    | 308       | 88.0        |
| SGRD5      | SALON    | SD1  | 10"  | 350        | 1  | 306    | 277    | 293       | 83.7        |
| SGRD6      | SALES    | SD1  | 10"  | 275        | 1  | 285    | 257    | 273       | 99.3        |
| SGRD7      | SALES    | SD1  | 10"  | 275        | 1  | 371    | 340    | 348       | 126.5       |
| SGRD8      | SALES    | SD1  | 10"  | 275        | 1  | 360    | 332    | 346       | 125.8       |
| SGRD9      | RR       | SD1  | 6"   | 75         | 1  | 81     | 81     | 88        | 117.3       |
| SGRD10     | CORRIDOR | SD1  | 8"   | 100        | 1  | 183    | 168    | 172       | 172.0       |
| SGRD11     | RR       | SD1  | 6"   | 75         | 1  | 101    | 92     | 92        | 122.7       |
| SGRD12     | CLOSET   | SD1  | 12"  | 600        | 1  | 426    | 392    | 411       | 68.5        |
| Total      |          |      |      | 3200       |    | 3551   | 3246   | 3241      | 101.28%     |



# National TAB

Project: 10-14-24 ULTA 1697 SELMA, NC

## System/Unit: AHU/RTU



Asset: RTU4

AREA:

| Unit Data           |           |            |
|---------------------|-----------|------------|
|                     | Design    | Actual     |
| MFG                 | LENNOX    | LENNOX     |
| Serial Num          | -         | 5623C07665 |
| Model Num           | LGM048U4E | LGM048U4E  |
| Type                | RTU       | RTU        |
| Configuration       | VERTICAL  | VERTICAL   |
| Num OA Filters 1    | -         | 1          |
| OA Filter Size 1    | -         | 14.5x28    |
| Num Final Filter 1  | -         | 4          |
| Final Filter Size 1 | -         | 20X20X2    |

| Motor Data     |        |        |
|----------------|--------|--------|
|                | Design | Actual |
| Motor MFG      | -      | NL     |
| Frame          | -      | NL     |
| Horsepower     | 1.5    | 1.5    |
| Motor Rpm      | NL     | NL     |
| Phase          | 3      | 3      |
| Rated Voltage  | 460    | 460    |
| Rated Amperage | 2.3    | 2.3    |

| Drive Data         |        |
|--------------------|--------|
|                    | 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                 | 1200   | 1796           |
| SF RPM                 | -      | 2243           |
| RA CFM                 | 1000   | 1536           |
| OA CFM                 | 200    | 260            |
| RL Voltage             | -      | 478/476/477    |
| RL Amperage            | -      | 1.21/1.41/1.23 |
| SF Rotation            | -      | CCW            |
| RA Damper Position     | -      | MANUALLY SET   |
| Min OA Damper Position | -      | MANUALLY SET   |
| Min OA Damper Type     | -      | ECON           |
| OA Enthalpy Setpt      | -      | 5              |

| Performance Data |        |        |
|------------------|--------|--------|
|                  | Design | Actual |
| MA Plenum SP     | -      | -0.32" |
| Fan Suction SP   | -      | -0.42" |
| Fan Discharge SP | -      | 0.52"  |
| Total ESP        | 1.00"  | 0.84"  |
| Fan Total SP     | -      | 0.94"  |

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

Completed By: Jearod Ferrette on 10/16/2024

Notes:

RTU-4 IN ALARM CODE 244 (BLOWER DIFFERENTIAL PRESURE SENSOR ERROR) UNABLE TO SLOW UNIT DOWN. WE ARE GETTING (149%) TOTAL AIRFLOW TO DESIGN. HIGH WINDS ON THE ROOF MAY HAVE AFFECTED THE OUTSIDE AIR MEASUREMENT. WE EXPECT TO BE ABLE TO REDUCE FAN SPEED ONCE SENSOR IS REPAIRED.

Written By: Jearod Ferrette on 10/16/2024



# National TAB

Project:10-14-24 ULTA 1697 SELMA, NC

## AHU/RTU



### Diffuser Supply (GRD)

RTU4/

| Asset      |          |      |      |            |    |        |        |           |             |
|------------|----------|------|------|------------|----|--------|--------|-----------|-------------|
| Asset Name | Location | Type | Size | DESIGN CFM | AK | CFM(1) | CFM(2) | FINAL CFM | % to design |
| SGRD1      | SALON    | SD1  | 10"  | 250        | 1  | 369    | 369    | 405       | 162.0       |
| SGRD2      | SALON    | SD1  | 10"  | 250        | 1  | 372    | 372    | 416       | 166.4       |
| SGRD3      | SALON    | SD2  | 8"   | 200        | 1  | 207    | 207    | 206       | 103.0       |
| SGRD4      | SALON    | SD1  | 10"  | 250        | 1  | 509    | 509    | 368       | 147.2       |
| SGRD5      | SALON    | SD1  | 10"  | 250        | 1  | 366    | 366    | 401       | 160.4       |
| Total      |          |      |      | 1200       |    | 1823   | 1823   | 1796      | 149.67%     |



# National TAB

Project: 10-14-24 ULTA 1697 SELMA, NC  
System/Unit: FAN - Exhaust



Asset: EF1

AREA:

| Unit Data     |            |            |
|---------------|------------|------------|
|               | Design     | Actual     |
| MFG           | LOREN COOK | LOREN COOK |
| Model Num     | 150ACEB    | 150ACEB    |
| Serial Num    | -          |            |
| Type          | ROOF       |            |
| Configuration | VERTICAL   |            |

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

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

| Test Data     |        |        |
|---------------|--------|--------|
|               | Design | Actual |
| CFM           | 1750   |        |
| Fan RPM       | -      |        |
| Fan Rotation  | -      |        |
| Motor RPM     | -      |        |
| RL Voltage    | -      |        |
| RL Amperage   | -      |        |
| Suction ESP   | -      |        |
| Discharge ESP | -      |        |
| Total ESP     | 0.50"  |        |



# National TAB

Project: 10-14-24 ULTA 1697 SELMA, NC

System/Unit: FAN - Exhaust



Asset: EF2

AREA:

| Unit Data     |            |            |
|---------------|------------|------------|
|               | Design     | Actual     |
| MFG           | LOREN COOK | LOREN COOK |
| Model Num     | GNVF-500   | GNVF-500   |
| Serial Num    | -          | NL         |
| Type          | INLINE     | INLINE     |
| Configuration | VERTICAL   | VERTICAL   |

| Motor Data       |        |        |
|------------------|--------|--------|
|                  | Design | Actual |
| Motor MFG        | -      | NL     |
| Frame            | -      | NL     |
| Horsepower       | NL     | NL     |
| Motor Rpm        | NL     | NL     |
| Phase            | 1      | 1      |
| Voltage (rated)  | 115    | 115    |
| Amperage (rated) | -      | NL     |
| Service Factor   | -      | NL     |

| Test Data        |        |            |
|------------------|--------|------------|
|                  | Design | Actual     |
| CFM              | 300    | 351        |
| Fan RPM          | -      |            |
| Fan Rotation     | -      | CCW        |
| Motor RPM        | -      |            |
| System SetPt     | -      |            |
| RL Voltage       | -      |            |
| RL Amperage      | -      |            |
| Total ESP        | 0.50"  |            |
| Fan Inlet SP     | -      |            |
| Fan Discharge SP | -      | Atmosphere |

Notes:

NO ACCESS TO EF-2 CONTROLS TO SLOW UNIT DOWN. DAMPERS ARE NOT INSTALL. FAN IS 117% TOTAL AIRFLOW OF DESIGN. THE FAN CAN BE BALANCED TO DESIGN ONCE AN ACCESSILBE SPEED CONTROLLER IS INSTALLED.

Written By: Jearod Ferrette on 10/16/2024



# National TAB

Project:10-14-24 ULTA 1697 SELMA, NC

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

EF2/

| Asset      |          |      |       |            |     |        |        |           |             |
|------------|----------|------|-------|------------|-----|--------|--------|-----------|-------------|
| Asset Name | Location | Type | Size  | DESIGN CFM | AK  | CFM(1) | CFM(2) | FINAL CFM | % to design |
| EGRD1      | RR       | EAG1 | 10X10 | 150        | 1.0 | 178    | 178    | 178       | 118.7       |
| EGRD2      | RR       | EAG1 | 10X10 | 150        | 1.0 | 173    | 173    | 173       | 115.3       |
| Total      |          |      |       | 300        |     | 351    | 351    | 351       | 117%        |



