

**Report By:**

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**Report: TAB Report**  
**Function: Test, Adjust, & Balance**  
**Date: 10/16/2024**  
**Completed By: National TAB**

**PROJECT**  
**10-14-24 WAWA #5805 MOBILE, AL**

664 SCHILLINGER RD

MOBILE, AL 36695

**Client**

Wawa  
260 West Baltimore Pike  
Wawa, PA 19063

# National TAB

Project: 10-14-24 WAWA #5805 MOBILE, AL

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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.

### Ceiling Exhaust Fans

The ceiling exhaust fans were measured using a flow hood. If speed adjustment was provided, the fan speed was adjusted to within design tolerance. 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-3 is missing grille

### 10-14-24 WAWA #5805 MOBILE, AL

#### Project Issue Information

**Issue Name :** EF-3 is missing grille  
**Description :** Unable to locate grille for EF-3. Recommended to install grille once found.  
**Created By :** National TAB                      **Assigned To :** National TAB - Ian Fuller  
**Status :** Open  
**Priority :** High                                      **Asset Tag :**  
**Originated Date :** 10/16/2024 - Ian Fuller - National TAB

#### Project Issue Response Details

- **10/16/2024 National TAB - Ian Fuller**



### 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         | FOOD SERVICE  | 3600        | 3695   | 2900        | 2984   | 700          | 711    | 19.4%  | 19.2%  |              |        |              |        |              |        |
| RTU-2         | RETAIL        | 3250        | 3176   | 2870        | 2780   | 380          | 396    | 11.7%  | 12.5%  |              |        |              |        |              |        |
| RTU-3         | RETAIL        | 2000        | 1913   | 1800        | 1712   | 200          | 201    | 10.0%  | 10.5%  |              |        |              |        |              |        |
| EF-1          | RESTROOMS     |             |        |             |        |              |        |        |        |              |        |              |        | 375          | 368    |
| EF-2          | FOOD SERVICE  |             |        |             |        |              |        |        |        |              |        |              |        | 400          | 413    |
| EF-3          | TRASH/STAGING |             |        |             |        |              |        |        |        |              |        |              |        | 200          | 216    |
| <b>TOTALS</b> |               | 8850        | 8784   | 7570        | 7476   | 1280         | 1308   |        |        | 0            | 0      | 0            | 0      | 975          | 997    |

#### NET BUILDING AIRFLOW CALCULATION

| TOTALS             | DESIGN     | ACTUAL     |
|--------------------|------------|------------|
| TOTAL OA           | 1280       | 1308       |
| TOTAL EXHAUST      | 975        | 997        |
| <b>NET AIRFLOW</b> | <b>305</b> | <b>311</b> |

| DOOR TESTED    | BUILDING PRESSURE MEASUREMENTS (IN. H2O) |
|----------------|--|
| FRONT          | 0.0027                                   |
| SIDE           | 0.0061                                   |
| REAR           | 0.0071                                   |
| <b>AVERAGE</b> | <b>0.0053</b>                            |

#### 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:

## CheckList List

- 00: PICTURES
- 01: RTU's/AHU's
- 02: LENNOX SETUP PARAMETERS
- 03: SENSOR WIRING (LENNOX)
- 04: EF'S
- 05: CLOSEOUT CHECKS



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**CheckList Information**

**Name :** 00: PICTURES **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 10/10/2024 - Brianna Biggs - National TAB  
**Completed Date :** 10/16/2024 - Ian Fuller - National TAB

**CheckList Item Details**

STORE FRONT

Comment:



10/16/2024

RTU-1

Comment:



10/16/2024

---

**RTU-2**

**Comment:**

---



10/16/2024

---

**RTU-3**

**Comment:**

---



10/16/2024

---

EF-1

Comment:



10/16/2024

---

EF-2

Comment:



10/16/2024

EF-3

Comment:



10/16/2024



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### 10-14-24 WAWA #5805 MOBILE, AL

#### CheckList Information

**Name :** 01: RTU's/AHU's **Status :** Completed

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

**Requesting Organization :** National TAB

**Created Date :** 10/10/2024 - Brianna Biggs - National TAB

**Completed Date :** 10/16/2024 - Ian Fuller - National TAB

#### CheckList Item Details

RTU's/AHU's

|   |      |
|---|------|
| All diffusers and grilles are installed and match design? | Pass |
|---|------|

Comment:

|                          |      |
|--------------------------|------|
| Clean filters installed? | Pass |
|--------------------------|------|

Comment:

|   |      |
|---|------|
| Economizers are assembled and functional? | Pass |
|---|------|

Comment:

|  |      |
|--|------|
| Motors are all operating below the FLA rating? | Pass |
|--|------|

Comment:

|                  |     |
|------------------|-----|
| Are belts tight? | N/A |
|------------------|-----|

Comment:

|   |      |
|---|------|
| If direct drive unit is the speed controller working? | Pass |
|---|------|

Comment:

Is gas piping installed and valves turned on?

N/A

Comment:

Condensate drains are installed?

Pass

Comment:

Unit free of noticeable noise and vibration

Pass

Comment:

Final outside air damper position is marked with permanent marker?

Pass

Comment:

No alarms present?

Pass

Comment:

Any noticeable duct leakage?

Pass

Comment:

Total supply and OA flows are balanced within +/-5% and supply & return diffusers within +/-10%?

Pass

Comment:

**IN TEST MODE, TEST THE FOLLOWING:**

**Cooling mode is operational? Record EAT/LAT for each unit:**

Comment:

RTU1: EAT - 70 F / LAT - 54 F RTU2: EAT - 69 F / LAT - 54 F RTU3: EAT - 70 F / LAT - 53 F

**Heating mode is operational? Record EAT/LAT for each unit:**

Comment:

RTU1: EAT - 74 F / LAT - 84 F RTU2: EAT - 72 F / LAT - 80 F RTU3: EAT - 73 F / LAT - 88 F

**Dehumidification mode is operational? (Feel dehumidification coil with your hand. Is it hot?) Record EAT/LAT for each unit:**

**Comment:**

RTU1: EAT - 72 F / LAT - 61 F RTU2: EAT - 70 F / LAT - 60 F RTU3: EAT - 73 F / LAT - 61 F



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### 10-14-24 WAWA #5805 MOBILE, AL

#### CheckList Information

**Name :** 02: LENNOX SETUP PARAMETERS **Status :** Completed

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

**Requesting Organization :** National TAB

**Created Date :** 10/10/2024 - Brianna Biggs - National TAB

**Completed Date :** 10/16/2024 - Ian Fuller - National TAB

#### CheckList Item Details

##### UNIT ID CONFIGURATIONS

**BACNET CONFIGURATION: GO TO SETTINGS>GENERAL>CONFIGURATION ID1 POSITION 5 SET TO "N".** Pass

Comment:

**NETWORK CONFIGURATION: GO TO SETUP>NETWORK INTEGRATION, SET TO BACNET IP** Pass

Comment:

**CONTROL MODE: SET CONTROL MODE TO ROOM SENSOR: CO2, TEMP & HUMIDITY (PER UNIT, AS NEEDED).** Pass

Comment:

##### INDIVIDUAL PARAMETER CONFIGURATIONS (MECHANICAL CONTRACTOR TO DEFINE / AS APPLICABLE):

**PARAMETER 105 DEHUMID MODE: 7 NO CONDITIONS** Pass

Comment:

**PARAMETER 106 DEHUMID SETPOINT: 50, THIS IS A CENTERED SET POINT (+/-)** Yes

Comment:

---

PARAMETER 107 DEHUMID DEADBAND: 3 (DEFAULT) THIS IS THE ACTUAL +/- VALUE Pass

---

Comment:

---

PARAMETER 117 CO2 DAMPER MAX OPEN: 50% Pass

---

Comment:

---

PARAMETER 118 CO2 START OPEN PPM: 1500 Pass

---

Comment:

DO THIS ON RTU2

---

PARAMETER 119 CO2 MAX OPEN PPM: 1500 Pass

---

Comment:

---

PARAMETER 137 OCCHET SET POINT: 68 (BACK UP) Pass

---

Comment:

---

PARAMETER 131 SET TO THE SAME % AS THE MINMIUM OA DAMPER SETPOINT Pass

---

Comment:

---

PARAMETER 139 OCC COOLING SET POINT: 72 (BACK UP) Pass

---

Comment:

---

PARAMETER 154 OCC BLOWER MODE: ON-CONTINUOUS 1 Pass

---

Comment:

---

CFM VALUES / MSAV FAN SPEEDS (AIR BALANCER TO DEFINE / IF APPLICABLE):

---

---

OA DAMPER SET TO SAME POSITION IN ALL FAN SPEEDS? Pass

---

Comment:

---

ALL FAN SPEEDS SET TO THE SAME CFM VALUE (ENTER SETPOINTS BELOW) Pass

---

Comment:

**HEAT CFM VALUE: PER THE HVAC SCHEDULE**

Pass

**Comment:**

**HIGH COOL CFM VALUE: THE HIGH COOL CFM VALUE**

Pass

**Comment:**

**LOW COOL CFM VALUE: MATCH THE HIGH COOL CFM VALUE**

Pass

**Comment:**

**VENTILATION CFM VALUE: MATCH THE HIGH COOL CFM VALUE**

Pass

**Comment:**



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### 10-14-24 WAWA #5805 MOBILE, AL

#### CheckList Information

**Name :** 03: SENSOR WIRING (LENNOX) **Status :** Completed

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

**Requesting Organization :** National TAB

**Created Date :** 10/10/2024 - Brianna Biggs - National TAB

**Completed Date :** 10/16/2024 - Ian Fuller - National TAB

#### CheckList Item Details

##### COMBINATION TEMPERATURE/HUMIDITY SENSOR

Sensors are installed where shown on the drawing? Pass

Comment:

2 conductor shielded cable has one wire landed to Vin, one to GND, and the shield wire is not connected. Pass

Comment:

For second shielded cable, one wire is landed to Vout and the shield wire is not connected. Pass

Comment:

Verify that the CORE or Prodigy controller is sensing a relative humidity (record the reading) Pass

Comment:

RTU1: 21% RH RTU2: 30% RH RTU3: 29% RH



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CheckList Information

**Name :** 04: EF'S **Status :** Completed

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

**Requesting Organization :** National TAB

**Created Date :** 10/10/2024 - Brianna Biggs - National TAB

**Completed Date :** 10/16/2024 - Ian Fuller - National TAB

CheckList Item Details

EF's

|                      |      |
|----------------------|------|
| Rotation is correct? | Pass |
|----------------------|------|

Comment:

|                                  |      |
|----------------------------------|------|
| Belts are tight (if applicable)? | Pass |
|----------------------------------|------|

Comment:

|  |     |
|--|-----|
| Speed controller installed and functional (if applicable)? | N/A |
|--|-----|

Comment:

|   |      |
|---|------|
| There is no major leakage around base of fan? | Pass |
|---|------|

Comment:

|  |      |
|--|------|
| Is the motor operating below the motor FLA rating? | Pass |
|--|------|

Comment:

|  |      |
|--|------|
| Back draft damper installed and can it fully open? | Pass |
|--|------|

**Comment:**

---

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

Pass

---

**Comment:**

---

**Total exhaust flow balanced within +/-5% and grilles are within +/-10%?**

Pass

---

**Comment:**

---

**Notes/Comments :**

---

(RESOLVED) NONE OF THE EXHAUST FANS ARE WIRED AND POWERED AT TIME OF TEST AND BALANCE INSPECTION.

---

**Date :**10/16/2024



10-14-24 WAWA #5805 MOBILE, AL

CheckList Information

Name : 05: CLOSEOUT CHECKS Status : Completed

Assigned Organization : National TAB Asset :

Requesting Organization : National TAB

Created Date : 10/10/2024 - Brianna Biggs - National TAB

Completed Date : 10/16/2024 - Ian Fuller - National TAB

CheckList Item Details

SPACE COMFORT

Is space free of drafting? Pass

Comment:

Is space comfortable in all areas? Pass

Comment:

Is the space free of ventilation noise? Pass

Comment:

BUILDING PRESSURE

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative) Pass

Comment:



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Project: 10-14-24 WAWA #5805 MOBILE, AL

## System/Unit: AHU/RTU



Asset: RTU1

AREA:

| Unit Data           |           |              |
|---------------------|-----------|--------------|
|                     | Design    | Actual       |
| MFG                 | LENNOX    | LENNOX       |
| Serial Num          | -         | 5624C07952   |
| Model Num           | LCT120H4E | LCT120H4EG1Y |
| Type                | RTU       | RTU          |
| Configuration       | VERTICAL  | VERTICAL     |
| Num OA Filters 1    | -         | 2            |
| OA Filter Size 1    | -         | 23X14        |
| Num Final Filter 1  | -         | 4            |
| Final Filter Size 1 | -         | 20X25X2      |

| Motor Data     |        |          |
|----------------|--------|----------|
|                | Design | Actual   |
| Motor MFG      | -      | EBMPAPST |
| Frame          | -      | N/A      |
| Horsepower     | 3.75   | 3.8      |
| Motor Rpm      | -      | N/A      |
| Phase          | 3      | 3        |
| Rated Voltage  | 208    | 200-240  |
| Rated Amperage | -      | 8.7      |
| Service Factor | -      | N/A      |

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

| Test Data          |        |             |
|--------------------|--------|-------------|
|                    | Design | Actual      |
| SF CFM             | 3600   | 3695        |
| SF RPM             | -      | 1210        |
| MOTOR RPM          | -      | 1210        |
| RA CFM             | 2900   | 2984        |
| OA CFM             | 700    | 711         |
| RL Voltage         | -      | 212/213/213 |
| RL Amperage        | -      | 1.4/1.4/1.5 |
| SF System SetPt    | -      | 46%         |
| RA Damper Position | -      | 63%         |
| RA Damper Type     | -      | ECONOMIZER  |
| OA Damper Position | -      | 37%         |
| OA Damper Type     | -      | ECONOMIZER  |

| Performance Data |        |        |
|------------------|--------|--------|
|                  | Design | Actual |
| MA Plenum SP     | -      | -0.19" |
| Fan Suction SP   | -      | -0.28" |
| Fan Discharge SP | -      | 0.23"  |
| Total ESP        | 1.00"  | 0.42"  |
| Fan Total SP     | -      | 0.51"  |

Completed By: Ian Fuller on 10/16/2024



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Project:10-14-24 WAWA #5805 MOBILE, AL

## AHU/RTU



### Diffuser Supply (GRD)

RTU1/

| Asset      |                 |      |      |            |      |        |        |           |             |
|------------|-----------------|------|------|------------|------|--------|--------|-----------|-------------|
| Asset Name | Location        | Type | Size | DESIGN CFM | AK   | CFM(1) | CFM(2) | FINAL CFM | % to design |
| SGRD1      | COFFEE          | SD4  | 10"  | 300        | 0.95 | 701    | 371    | 330       | 110.0       |
| SGRD2      | FOOD SERVICE    | SD4  | 10"  | 300        | 0.95 | 627    | 434    | 286       | 95.3        |
| SGRD3      | FOOD SERVICE    | SD4  | 10"  | 300        | 0.95 | 456    | 345    | 273       | 91.0        |
| SGRD4      | FOOD SERVICE    | SD4  | 10"  | 300        | 0.95 | 230    | 183    | 312       | 104.0       |
| SGRD5      | FOOD SERVICE    | SD4  | 10"  | 300        | 0.95 | 292    | 265    | 281       | 93.7        |
| SGRD6      | FOOD SERVICE    | SD4  | 10"  | 300        | 0.95 | 560    | 426    | 328       | 109.3       |
| SGRD7      | FOOD SERVICE    | SD4  | 10"  | 300        | 0.95 | 383    | 509    | 316       | 105.3       |
| SGRD8      | BOH             | SD4  | 10"  | 325        | 0.95 | 279    | 216    | 351       | 108.0       |
| SGRD9      | BOH             | SD4  | 10"  | 325        | 0.95 | 478    | 268    | 349       | 107.4       |
| SGRD10     | BOH             | SD4  | 10"  | 325        | 0.95 | 389    | 246    | 339       | 104.3       |
| SGRD11     | TRASH/STAGING   | SD1  | 8"   | 200        | 0.95 | 497    | 265    | 212       | 106.0       |
| SGRD12     | ELECTRICAL ROOM | SD1  | 10"  | 325        | 0.95 | 591    | 348    | 318       | 97.8        |
| Total      |                 |      |      | 3600       |      | 5483   | 3876   | 3695      | 102.64%     |

### Diffuser Ret/Exh (GRD)

RTU1/

| Asset      |                    |      |       |            |     |        |        |           |             |
|------------|--------------------|------|-------|------------|-----|--------|--------|-----------|-------------|
| Asset Name | Location           | Type | Size  | DESIGN CFM | AK  | CFM(1) | CFM(2) | FINAL CFM | % to design |
| EGRD1      | SPECIALTY BEVERAGE | RG1  | 14X14 | 900        | 1.0 | 834    | 834    | 834       | 92.7        |
| EGRD2      | SPECIALTY BEVERAGE | RG1  | 14X14 | 900        | 1.0 | 810    | 810    | 810       | 90.0        |
| EGRD3      | WASHROOM           | RG1  | 14X14 | 1100       | 1.0 | 1105   | 1105   | 1105      | 100.5       |
| Total      |                    |      |       | 2900       |     | 2749   | 2749   | 2749      | 94.79%      |



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Project: 10-14-24 WAWA #5805 MOBILE, AL

## System/Unit: AHU/RTU



Asset: RTU2

AREA:

| Unit Data           |           |              |
|---------------------|-----------|--------------|
|                     | Design    | Actual       |
| MFG                 | LENNOX    | LENNOX       |
| Serial Num          | -         | 5624C07951   |
| Model Num           | LCT120H4E | LCT120H4EG1Y |
| Type                | RTU       | RTU          |
| Configuration       | VERTICAL  | VERTICAL     |
| Num OA Filters 1    | -         | 2            |
| OA Filter Size 1    | -         | 23X14        |
| Num Final Filter 1  | -         | 4            |
| Final Filter Size 1 | -         | 20X25X2      |

| Motor Data     |        |          |
|----------------|--------|----------|
|                | Design | Actual   |
| Motor MFG      | -      | EBMPAPST |
| Frame          | -      | N/A      |
| Horsepower     | 3.75   | 3.8      |
| Motor Rpm      | -      | N/A      |
| Phase          | 3      | 3        |
| Rated Voltage  | 208    | 200-240  |
| Rated Amperage | -      | 8.7      |
| Service Factor | -      | N/A      |

| 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     |

| Test Data          |        |             |
|--------------------|--------|-------------|
|                    | Design | Actual      |
| SF CFM             | 3250   | 3176        |
| SF RPM             | -      | 1320        |
| MOTOR RPM          | -      | 1320        |
| RA CFM             | 2870   | 2780        |
| OA CFM             | 380    | 396         |
| RL Voltage         | -      | 211/211/211 |
| RL Amperage        | -      | 2.4/2.4/2.3 |
| SF System SetPt    | -      | 60%         |
| RA Damper Position | -      | 74%         |
| RA Damper Type     | -      | ECONOMIZER  |
| OA Damper Position | -      | 26%         |
| OA Damper Type     | -      | ECONOMIZER  |

| Performance Data |        |        |
|------------------|--------|--------|
|                  | Design | Actual |
| MA Plenum SP     | -      | -0.26" |
| Fan Suction SP   | -      | -0.48" |
| Fan Discharge SP | -      | 0.12"  |
| Total ESP        | 1.00"  | 0.38"  |
| Fan Total SP     | -      | 0.60"  |

Completed By: Ian Fuller on 10/16/2024



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Project:10-14-24 WAWA #5805 MOBILE, AL

## AHU/RTU



**Diffuser Supply (GRD)**

**RTU2/**

| Asset      |               |      |      |            |       |        |        |           |             |
|------------|---------------|------|------|------------|-------|--------|--------|-----------|-------------|
| Asset Name | Location      | Type | Size | DESIGN CFM | AK    | CFM(1) | CFM(2) | FINAL CFM | % to design |
| SGRD1      | RETAIL        | SD2  | 30"  | 300        | 0.325 | 288    | 301    | 301       | 100.3       |
| SGRD2      | RETAIL        | SD2  | 30"  | 275        | 0.325 | 288    | 257    | 257       | 93.5        |
| SGRD3      | RETAIL        | SD2  | 30"  | 300        | 0.325 | 283    | 282    | 282       | 94.0        |
| SGRD4      | RETAIL        | SD2  | 30"  | 275        | 0.325 | 251    | 255    | 255       | 92.7        |
| SGRD5      | RETAIL        | SD2  | 30"  | 275        | 0.325 | 302    | 289    | 289       | 105.1       |
| SGRD6      | RETAIL        | SD2  | 30"  | 300        | 0.325 | 286    | 294    | 294       | 98.0        |
| SGRD7      | RETAIL        | SD2  | 30"  | 300        | 0.325 | 323    | 279    | 279       | 93.0        |
| SGRD8      | RETAIL        | SD2  | 30"  | 275        | 0.325 | 358    | 266    | 266       | 96.7        |
| SGRD9      | RETAIL        | SD2  | 30"  | 275        | 0.325 | 268    | 274    | 274       | 99.6        |
| SGRD10     | DELIVERY ROOM | SD1  | 8"   | 200        | 0.95  | 170    | 193    | 193       | 96.5        |
| SGRD11     | HALLWAY       | SD1  | 8"   | 100        | 0.95  | 142    | 109    | 109       | 109.0       |
| SGRD12     | MENS RR       | SD5  | 8"   | 150        | 0.95  | 74     | 141    | 141       | 94.0        |
| SGRD13     | WOMENS RR     | SD5  | 8"   | 75         | 0.95  | 196    | 78     | 78        | 104.0       |
| SGRD14     | VESTIBULE     | SD5  | 8"   | 150        | 0.95  | 157    | 158    | 158       | 105.3       |
| Total      |               |      |      | 3250       |       | 3386   | 3176   | 3176      | 97.72%      |



# National TAB

Project: 10-14-24 WAWA #5805 MOBILE, AL

## System/Unit: AHU/RTU



Asset: RTU3

AREA:

| Unit Data           |           |              |
|---------------------|-----------|--------------|
|                     | Design    | Actual       |
| MFG                 | LENNOX    | LENNOX       |
| Serial Num          | -         | 5624C05720   |
| Model Num           | LCT060H4E | LCT060H4EG1Y |
| Type                | RTU       | RTU          |
| Configuration       | VERTICAL  | VERTICAL     |
| Num OA Filters 1    | -         | 2            |
| OA Filter Size 1    | -         | 14X14        |
| Num Final Filter 1  | -         | 4            |
| Final Filter Size 1 | -         | 20X20X2      |

| Motor Data     |        |        |
|----------------|--------|--------|
|                | Design | Actual |
| Motor MFG      | -      | GENTEQ |
| Frame          | -      | N/A    |
| Horsepower     | 1.5    | 1.0    |
| Motor Rpm      | -      | N/A    |
| Phase          | 3      | 1      |
| Rated Voltage  | 208    | 240    |
| Rated Amperage | -      | 6.13   |
| Service Factor | -      | N/A    |

| 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     |

| Test Data          |        |            |
|--------------------|--------|------------|
|                    | Design | Actual     |
| SF CFM             | 2000   | 1913       |
| SF RPM             | -      | 80%        |
| MOTOR RPM          | -      | 80%        |
| RA CFM             | 1800   | 1712       |
| OA CFM             | 200    | 201        |
| RL Voltage         | -      | 209        |
| RL Amperage        | -      | 5.58       |
| SF System SetPt    | -      | 80%        |
| RA Damper Position | -      | 80%        |
| RA Damper Type     | -      | ECONOMIZER |
| OA Damper Position | -      | 20%        |
| OA Damper Type     | -      | ECONOMIZER |

| Performance Data |        |        |
|------------------|--------|--------|
|                  | Design | Actual |
| MA Plenum SP     | -      | -0.27" |
| Fan Suction SP   | -      | -0.49" |
| Fan Discharge SP | -      | 0.26"  |
| Total ESP        | 0.50"  | 0.53"  |
| Fan Total SP     | -      | 0.75"  |

Completed By: Ian Fuller on 10/16/2024



# National TAB

Project:10-14-24 WAWA #5805 MOBILE, AL

## AHU/RTU



### Diffuser Supply (GRD)

RTU3/

| Asset      |            |      |      |            |      |        |        |           |             |
|------------|------------|------|------|------------|------|--------|--------|-----------|-------------|
| Asset Name | Location   | Type | Size | DESIGN CFM | AK   | CFM(1) | CFM(2) | FINAL CFM | % to design |
| SGRD1      | VESTIBULE  | SD5  | 8"   | 200        | 0.95 | 214    | 212    | 219       | 109.5       |
| SGRD2      | RETAIL     | SD2  | 75"  | 350        | 0.33 | 217    | 290    | 348       | 99.4        |
| SGRD3      | RETAIL     | SD2  | 75"  | 350        | 0.33 | 301    | 366    | 359       | 102.6       |
| SGRD4      | RETAIL     | SD2  | 75"  | 350        | 0.33 | 248    | 300    | 346       | 98.9        |
| SGRD5      | RETAIL     | SD2  | 75"  | 350        | 0.33 | 222    | 285    | 329       | 94.0        |
| SGRD6      | ASSOCIATES | SD1  | 8"   | 150        | 0.95 | 261    | 146    | 155       | 103.3       |
| SGRD7      | OFFICE     | SD1  | 8"   | 150        | 0.95 | 253    | 148    | 157       | 104.7       |
| Total      |            |      |      | 1900       |      | 1716   | 1747   | 1913      | 100.68%     |

### Diffuser Ret/Exh (GRD)

RTU3/

| Asset      |                       |      |       |            |     |        |        |           |             |
|------------|-----------------------|------|-------|------------|-----|--------|--------|-----------|-------------|
| Asset Name | Location              | Type | Size  | DESIGN CFM | AK  | CFM(1) | CFM(2) | FINAL CFM | % to design |
| EGRD1      | SELF SERVICE BEVERAGE | RG1  | 12X12 | 750        | 1.0 | 712    | 713    | 713       | 95.1        |
| EGRD2      | SELF SERVICE BEVERAGE | RG1  | 12X12 | 750        | 1.0 | 743    | 740    | 740       | 98.7        |
| EGRD3      | ASSOCIATE AREA        | RG3  | 8X8   | 150        | 1.0 | 122    | 139    | 139       | 92.7        |
| EGRD4      | OFFICE                | RG3  | 8X8   | 150        | 1.0 | 180    | 140    | 140       | 93.3        |
| Total      |                       |      |       | 1800       |     | 1757   | 1732   | 1732      | 96.22%      |



# National TAB

Project: 10-14-24 WAWA #5805 MOBILE, AL

System/Unit: FAN - Exhaust



Asset: EF1

AREA:

| Unit Data     |           |                 |
|---------------|-----------|-----------------|
|               | Design    | Actual          |
| MFG           | GREENHECK | GREENHECK       |
| Model Num     | GB-098-6  | GB-098-6-1-19-X |
| Serial Num    | -         | 24686914        |
| Type          | DOWNBLAST | DOWNBLAST       |
| Configuration | VERTICAL  | VERTICAL        |

| Motor Data       |        |           |
|------------------|--------|-----------|
|                  | Design | Actual    |
| Motor MFG        | -      | US MOTORS |
| Frame            | -      | N/A       |
| Horsepower       | -      | 1/6       |
| Motor Rpm        | -      | 1725      |
| Phase            | -      | 1         |
| Voltage (rated)  | -      | 115       |
| Amperage (rated) | -      | 3.8       |
| Service Factor   | -      | 1.35      |

| Drive Data         |               |
|--------------------|---------------|
|                    | Actual        |
| Motor Sheave Size  | VP25          |
| Motor Bore Size    | 0.5"          |
| Motor Sheave SetPt | 2.0 TURNS OUT |
| Fan Sheave Size    | 3.5"          |
| Fan Sheave Bore    | 0.75"         |
| Belt CL Distance   | 5.0"          |
| Num of Belts       | 1             |
| Belt Size          | 3L180         |

| Test Data     |        |        |
|---------------|--------|--------|
|               | Design | Actual |
| CFM           | 375    | 368    |
| Fan RPM       | 1334   | 1119   |
| Fan Rotation  | -      | CW     |
| Motor RPM     | -      | 1722   |
| RL Voltage    | -      | 121    |
| RL Amperage   | -      | 2.0    |
| Suction ESP   | -      | -0.21" |
| Discharge ESP | -      | ATM    |
| Total ESP     | -      | 0.21"  |

Completed By: Ian Fuller on 10/16/2024



# National TAB

Project:10-14-24 WAWA #5805 MOBILE, AL

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

EF1/

| Asset      |            |      |      |            |     |        |        |           |             |
|------------|------------|------|------|------------|-----|--------|--------|-----------|-------------|
| Asset Name | Location   | Type | Size | DESIGN CFM | AK  | CFM(1) | CFM(2) | FINAL CFM | % to design |
| EF1-EGRD1  | WOMEN'S RR | EG-1 | 8X8  | 150        | 1.0 | 175    | 145    | 145       | 96.7        |
| EF1-EGRD2  | MEN'S RR   | EG-1 | 8X8  | 225        | 1.0 | 195    | 223    | 223       | 99.1        |
| Total      |            |      |      | 375        |     | 370    | 368    | 368       | 98.13%      |

Completed By: Ian Fuller on 10/16/2024



# National TAB

Project: 10-14-24 WAWA #5805 MOBILE, AL

System/Unit: FAN - Exhaust



Asset: EF2

AREA:

| Unit Data     |           |                 |
|---------------|-----------|-----------------|
|               | Design    | Actual          |
| MFG           | GREENHECK | GREENHECK       |
| Model Num     | GB-098-6  | GB-098-6-1-19-X |
| Serial Num    | -         | 24686912        |
| Type          | DOWNBLAST | DOWNBLAST       |
| Configuration | VERTICAL  | VERTICAL        |

| Motor Data       |        |           |
|------------------|--------|-----------|
|                  | Design | Actual    |
| Motor MFG        | -      | US MOTORS |
| Frame            | -      | N/A       |
| Horsepower       | -      | 1/6       |
| Motor Rpm        | -      | 1725      |
| Phase            | -      | 1         |
| Voltage (rated)  | -      | 115       |
| Amperage (rated) | -      | 3.8       |
| Service Factor   | -      | 1.35      |

| Drive Data         |               |
|--------------------|---------------|
|                    | Actual        |
| Motor Sheave Size  | VP25          |
| Motor Bore Size    | 0.5"          |
| Motor Sheave SetPt | 0.5 TURNS OUT |
| Fan Sheave Size    | 3.5"          |
| Fan Sheave Bore    | 0.75"         |
| Belt CL Distance   | 5.0"          |
| Num of Belts       | 1             |
| Belt Size          | 3L180         |

| Test Data     |        |        |
|---------------|--------|--------|
|               | Design | Actual |
| CFM           | 400    | 413    |
| Fan RPM       | 1334   | 1210   |
| Fan Rotation  | -      | CW     |
| Motor RPM     | -      | 1726   |
| RL Voltage    | -      | 121    |
| RL Amperage   | -      | 2.4    |
| Suction ESP   | -      | -0.25" |
| Discharge ESP | -      | ATM    |
| Total ESP     | -      | 0.25"  |

Completed By: Ian Fuller on 10/16/2024



# National TAB

Project:10-14-24 WAWA #5805 MOBILE, AL

## FAN - Exhaust



**Diffuser Ret/Exh (GRD)**

EF2/

| Asset      |               |      |      |            |     |        |        |           |             |
|------------|---------------|------|------|------------|-----|--------|--------|-----------|-------------|
| Asset Name | Location      | Type | Size | DESIGN CFM | AK  | CFM(1) | CFM(2) | FINAL CFM | % to design |
| EF2-EGRD1  | FOOD SERVICE  | RG-2 | 8X8  | 200        | 1.0 | 180    | 212    | 212       | 106.0       |
| EF2-EGRD2  | BACK OF HOUSE | RG-2 | 8X8  | 200        | 1.0 | 170    | 201    | 201       | 100.5       |
| Total      |               |      |      | 400        |     | 350    | 413    | 413       | 103.25%     |



# National TAB

Project: 10-14-24 WAWA #5805 MOBILE, AL  
System/Unit: FAN - Exhaust



Asset: EF3

AREA:

| Unit Data     |             |                |
|---------------|-------------|----------------|
|               | Design      | Actual         |
| MFG           | GREENHECK   | GREENHECK      |
| Model Num     | SP-B200     | SP-B200-QD     |
| Serial Num    | -           | 178416806-0029 |
| Type          | CENTRIFUGAL | CENTRIFUGAL    |
| Configuration | VERTICAL    | VERTICAL       |

| Test Data    |        |            |
|--------------|--------|------------|
|              | Design | Actual     |
| CFM          | 200    | 216        |
| System SetPt | -      | HIGH SPEED |

| Motor Data       |        |           |
|------------------|--------|-----------|
|                  | Design | Actual    |
| Horsepower       | -      | GREENHECK |
| Motor Rpm        | -      | 1000      |
| Phase            | 1      | 1         |
| Voltage (rated)  | 120    | 115       |
| Amperage (rated) | -      | 2.7       |

Completed By: Ian Fuller on 10/16/2024

Notes:  
GRILLE FACE MISSING

Written By: Ian Fuller on 10/16/2024

1 HVAC FLOOR PLAN  
1/4" = 1'-0"

