

Report By:

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NATIONAL

TAB

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**Report: FINAL TAB REPORT
Function: Test, Adjust, & Balance
Date: 10/03/2022**

PROJECT

SWEETGREEN #NYM237 - GARDEN CITY, NY

191 7TH ST ST, B

GARDEN CITY, NY

Client

DGC Capital Contracting Corp.
506 South 9th Ave
Mount Vernon, NY 10550

National TAB

Project: SWEETGREEN #NYM237 - GARDEN CITY, NY

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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.

Kitchen Exhaust Hood (Type II) & Associated Fans

Each kitchen exhaust fan was measured by traversing the ductwork or ductwork opening at the hood. The total flow of the exhaust fan was then adjusted to tolerance of the design flow. Any EF's 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.



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SWEETGREEN #NYM237 - GARDEN CITY, NY

Project Issue Information

Issue Name : Condenser Coils for both RTU's are dirty and should be cleaned.
Description : .
Created By : National TAB **Assigned To :** National TAB - Will Turnbough
Status : Open
Originated Date : 10/04/2022 - Will Turnbough - National TAB

Project Issue File Details



condensers.png



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SWEETGREEN #NYM237 - GARDEN CITY, NY

Project Issue Information

Issue Name : Evaporator filters

Description : Evaporator coil filters are the wrong size and not adequately covering the coil. RTU's currently have (5) 20x25x2 filters. Correct sizes are (3) 20x25x2 and (3) 20x20x2

Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Open

Originated Date : 10/04/2022 - Will Turnbough - National TAB

Project Issue File Details



filters.png



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SWEETGREEN #NYM237 - GARDEN CITY, NY

Project Issue Information

Issue Name : RTU-1

Description : RTU-1 SHOWS TO BE A YHC067 IN THE M-SHEETS. IT IS ACTUALLY A YHC092. UNIT IS SCHEDULED FOR 1600 CFM. GRILLES ADD TO 1300 CFM. GC DOES NOT HAVE SUBMITTALS DUE TO UNITS BEING EXISTING.

Created By : National TAB

Assigned To : National TAB - Will Turnbough

Status : Open

Originated Date : 09/28/2022 - Wesley John - National TAB

Project Issue File Details



Image_2022_09_28T1510...



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SWEETGREEN #NYM237 - GARDEN CITY, NY

Project Issue Information

Issue Name : RTU-1 OA Filter

Description : OA Filter is degrading and needs to be replaced.

Created By : National TAB

Assigned To : National TAB - Wesley John

Status : Open

Originated Date : 10/04/2022 - Will Turnbough - National TAB

Project Issue File Details



oafilters.png

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	DINING	2400	2588	1870	2030	530	558	22.1%	21.6%						
RTU-2	KITCHEN	3000	3268	2510	2766	490	502	16.3%	15.4%						
KEF-1	HOOD 1											725	749		
EF-1	RESTROOM													75	77
EF-2	RESTROOM													75	71
TOTALS		5400	5856	4380	4796	1020	1060			0	0	725	749	150	148

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1020	1060
TOTAL EXHAUST	875	897
NET AIRFLOW	145	163

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.001
SIDE	-
REAR	0.001
AVERAGE	0.001

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:

DESIGN FOR RESTROOM FANS NOT GIVEN



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CheckList Information

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

CheckList Item Details

STORE FRONT



Image_2022_09_29T0856...

RTU-1



Image_2022_09_29T0856...

RTU-2



Image_2022_09_29T0856...

KEF-1



Image_2022_09_29T0856...

HOOD-1



Image_2022_09_29T0856...

Notes/Comments :



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CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

INITIAL SITE WALKTHROUGH

Review Plan Review Checklist, has it been signed off and meets our standards to start balancing? If not contact processor to ensure job is ready.	GRILLES DELAYED IN SHIPPING. WILL OKAYED STARTING WORK WITHOUT BALANCING INDIVIDUAL GRILLES.
All diffusers and grilles are installed and match design?	NO
All hood filters installed and accounted for?	N/A
Hoods are wired and have power?	YES
Hood is free of alarms?	YES
Thermostats have power?	YES
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

Notes/Comments :



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SWEETGREEN #NYM237 - GARDEN CITY, NY

CheckList Information

Name : TECH - STEP 2: UNIT DATA AND EVAL **Status :** Submitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : 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
DCV Max damper opening position is set to minimum?	YES
Free cooling enthalpy set point set for lowest setting (Typically "D")	YES
Motors are all operating below the FLA rating?	YES
Are belts tight?	N/A
If direct drive unit is the speed controller working.	YES
Is gas piping installed and valves turned on?	GAS PIPING IS INSTALLED BUT VALVES ARE KEPT OFF DUE TO GAS NOT YET BEING TURNED ON TO SWEETGREEN SPACE.
Unit free of noticeable noise and vibrat	YES
Issue	CURRENT EVAPORATOR COIL FILTERS ARE WRONG SIZE AND ARE NOT ADEQUATELY COVERING COIL. RTUS CURRENTLY HAVE (5) 20x25x2 FILTERS. CORRECT SIZES ARE (3) 20x25x2 AND (3) 20x20x2 FILTERS.



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Issue

RTU-1 OUTSIDE AIR FILTER IS CORRODING.



Image_2022_09_29T0915...

Issue

BOTH RTU CONDENSER COILS ARE DIRTY.



Image_2022_09_29T0914...

EF's

Rotation is correct?

YES

Belts are tight?	N/A
Grease cup installed on hood fan?	N/A HOOD FAN SERVES TYPE II HOOD.
Hinge kit installed installed on hood fan?	NO. UNABLE TO TAKE STATIC PRESSURE READING AT FAN.
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	N/A
Flex conduit is long enough so that fan can be completely tilted back?	N/A
There is no major leakage around base of fan?	YES
Is the motor operating below the motor FLA rating?	YES
For restroom fan(s) is the back draft damper installed and can it fully open?	YES
Unit free of noticeable noise and vibration?	YES

HOODS

Kitchen equipment installed in proper places?	YES
Can kitchen equipment be turned on for final smoke test?	NO. ELECTRICAL CORD TO OVEN IS NOT YET INSTALLED



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DOCUMENTATION

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

AIR PURIFICATION INSPECTION

PHI Air purifiers are installed?	PHI UNITS ARE PRESENT BUT NOT YET INSTALLED BY MECHANICAL CONTRACTOR.
Are they installed after the evaporator coil or in the supply duct?	N/A

Are they powered?	N/A
If PKG installed inside of the blower compartment, is the wiring exposed to UV light protected with split loom or conduit?	N/A
If Reme Halo, is it installed so that the air flow arrow is pointing correct direction?	N/A
Is a UV warning sticker installed?	N/A
Take picture of each air purifier and include in the report	N/A

Notes/Comments :



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SWEETGREEN #NYM237 - GARDEN CITY, NY

CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting? YES

Is space comfortable in all areas? YES

Is the space free of ventilation noise? YES

If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".

Notes/Comments :



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SWEETGREEN #NYM237 - GARDEN CITY, NY

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	Status :	Submitted
Assigned Organization :	National TAB	Asset :	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing	NONE
List smoke candle type used	45 SECOND SMOKE CARTRIDGE
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%

WITNESS

Date test was completed	9/29/2022
TAB tech name / Firm	WESLEY JOHN / NATIONAL TAB
Site super name / Firm	DANIEL AHERN / DGC CAPITAL
Owner representative name / Firm (if Applicable)	N/A
Building pressure at front & back doors (All Systems On)	FRONT 0.001" / BACK 0.001"

ADDITIONAL

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

Notes/Comments :



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CheckList Information

Name :	TECH - STEP 4B: HOOD AND OVEN EVALUATION	Status :	Submitted
Assigned Organization :	National TAB	Asset :	
Requesting Organization :	National TAB		

CheckList Item Details

HOOD AND OVEN EVALUATION

Is the oven covered by a hood?	YES
What is the hood overhang over the front of the hood?	21 1/2"
What is hood overhang over the left and right sides of the oven?	LEFT 16 1/2" RIGHT 6" UNABLE TO COMPLETELY CENTER OVEN UNDER FAN DUE TO DRAIN BEHIND OVEN. OVEN IS MOVED AS FAR LEFT AS POSSIBLE.
	
<p>Image_2022_09_29T0943...</p>	
If vertical end panels are specified, are they installed?	NOT SPECIFIED
SMOKE TEST AT HOOD	100%
If oven is capable of turning on, it is required to be turned on for smoke test. Was oven on for smoke test?	NOT CAPABLE OF TURNING ON. ELECTRICAL CORDS NOT YET INSTALLED.



Image_2022_09_29T0924...

Smoke test the oven at the flue on the top of the hood - Capture %?	100%
Smoke test the oven at perimeter of the oven - capture %?	100%
Smoke test the oven at the perimeter of the hood - capture %?	100%
IF NO HOOD IS INSTALLED ABOVE THE OVEN	
If no hood is installed above the oven, and it is only a grille, smoke test at the top of the oven at the flue and note the capture %. If smoke capture is very poor, hold the candle up by the grille after a few seconds so that the smoke alarms don't get set off.	N/A
SMOKE TEST AT OVEN	
Confirm that the internal fan turns on as you open the oven door?	OVEN IS NOT CAPABLE OF TURNING ON AT TIME OF BALANCE.
Smoke test at the oven doors as you are opening the door - capture %?	N/A
Smoke test at the oven doors when the doors are shut - capture %?	N/A
EXHAUST DISCHARGE AND OA INTAKES	
Identify where the exhaust air is discharged and take pictures	EXHAUST AIR IS DISCHARGED THROUGH EF-1 UPBLAST CONFIGURATION.



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Are there any outside air intakes nearby that would be able to re-entrain the exhaust smoke? Take pictures

ALL NEARBY DUCTS ARE EXHAUST



Image_2022_09_29T0943...

Are there any building entrances or windows near the exhaust discharge where smoke that will cause smoke to enter unwanted spaces?

NO. EXHAUST FANS AND OUTLETS ARE SEPARATED FROM RTUS BY WALL ON ROOF.



Image_2022_09_29T0943...

Notes/Comments :

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Project: SWEETGREEN #NYM237 - GARDEN CITY, NY

System/Unit: AHU/RTU



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Asset: RTU1

AREA:DINING

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	111210208L
Model Num	YHC067E4RYA	YHC092E3RHA0BC
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	16X36
Num Final Filter 1	-	3
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	3
Final Filter Size 2	-	20X20X2

Motor Data		
	Design	Actual
Motor MFG	-	EBM PAPST
Frame	-	NL
Horsepower	1	2800 W
Motor Rpm	-	1700
Phase	3	3
Rated Voltage	208	200
Rated Amperage	-	8.5

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

Test Data		
	Design	Actual
SF CFM	2400	2588
SF RPM	-	DIRECT DRIVE
RA CFM	1870	2030
OA CFM	530	558
RL Voltage	-	220/220/2200
RL Amperage	-	1.9/1.6/1.8
SF Rotation	-	CCW
RA Damper Position	-	OPEN
Min OA Damper Position	-	CLOSED

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.48"
Fan Suction SP	-	-0.50"
Fan Discharge SP	-	0.52"
Total ESP	0.50"	1.00"
Fan Total SP	-	1.02"

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

Completed By: Wesley John

Notes:

National TAB

Project: SWEETGREEN #NYM237 - GARDEN CITY, NY

System/Unit: AHU/RTU



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Asset: RTU2

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	111210208L
Model Num	YHC092F3RMA	YHC092E3RHA0BC
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	16X36
Num Final Filter 1	-	3
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	3
Final Filter Size 2	-	20X20X2

Motor Data		
	Design	Actual
Motor MFG	-	EBM PAPST
Frame	-	NL
Horsepower	2.75	2800 W
Motor Rpm	-	1700
Phase	3	3
Rated Voltage	208	200
Rated Amperage	-	8.5

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

Test Data		
	Design	Actual
SF CFM	3000	3268
SF RPM	-	DIRECT DRIVE
RA CFM	2510	2766
OA CFM	490	502
RL Voltage	-	219/220/220
RL Amperage	-	4.5/4.5/4.3
SF Rotation	-	CCW
RA Damper Position	-	16 1/2"
Min OA Damper Position	-	1/2"

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.58"
Fan Suction SP	-	-0.74"
Fan Discharge SP	-	0.64"
Total ESP	0.50"	1.22"
Fan Total SP	-	1.38"

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

Completed By: Wesley John

Notes:

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Project: SWEETGREEN #NYM237 - GARDEN CITY, NY

System/Unit: FAN - Exhaust



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Asset: EF1

AREA:RESTROOM

Unit Data		
	Design	Actual
MFG	NA	NL
Model Num	NA	BPT13-14MG
Serial Num	-	175630
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	CEILING	CELING

Test Data		
	Design	Actual
CFM	75	77
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CW
Motor RPM	-	DIRECT DRIVE
RL Voltage	-	124
RL Amperage	-	0.14

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	1
Voltage (rated)	-	120
Amperage (rated)	-	0.18
Service Factor	-	NL

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Notes:

National TAB

Project: SWEETGREEN #NYM237 - GARDEN CITY, NY

System/Unit: FAN - Exhaust



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Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	NA	NL
Model Num	NA	BPT13-14MG
Serial Num	-	175630
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	CEILING	CEILING

Test Data		
	Design	Actual
CFM	75	71
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CW
Motor RPM	-	DIRECT DRIVE
RL Voltage	-	124
RL Amperage	-	0.13

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	1
Voltage (rated)	-	120
Amperage (rated)	-	0.14
Service Factor	-	NL

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Notes:

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Project: SWEETGREEN #NYM237 - GARDEN CITY, NY

System/Unit: FAN - Exhaust



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Asset: KEF1

AREA:HOOD 1

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVE-AIRE
Model Num	DU50HFA	DU50HFA
Serial Num	-	5497074
Type	UPBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	HSSA
Frame	-	NL
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	2.0
Service Factor	-	1.25

Test Data		
	Design	Actual
CFM	725	749
Fan RPM	1419	1092
Fan Rotation	-	CCW
Motor RPM	-	1092
System SetPt	-	38.0 Hz
RL Voltage	-	90
RL Amperage	-	1.3
Total ESP	1.0"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	ATM

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Notes:

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Project: SWEETGREEN #NYM237 - GARDEN CITY, NY

System/Unit: Kitchen Hood Type II



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Asset: HD(Type2)1

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVE-AIRE
Model Num	6024 VHB	6024 VHB
Serial Num	-	5497074
Type	TYPE II LOW PROXIMITY	TYPE II CANOPY
Hood length	56"	56"
Hood Width	60"	60"

Test Data		
	Design	Actual
Exhaust CFM	725	749

Completed By: Wesley John

Notes:

