Report By:

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

NATIONAL TAB

Comfort. Under control.

Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 02/17/2023

PROJECT

02-13-23 NIKE - LANHAM, MD

2250 PETRIE LANE

LANHAM, MD

Client

Lakeview Construction

National TAB

Project: 02-13-23 NIKE - LANHAM, MD

Table Of Contents

Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's

Each of the RTU's were measured at their terminal devices utilizing a flow hood. The sum of these readings is equal to the total flow for that particular unit. The total flow of each RTU was then adjusted within tolerance of the specified design. Each terminal diffuser was balanced to within tolerance of the engineer's design volume utilizing the provided hand damper located at the takeoff of the main & branch trunk line(s). Any equipment that fell outside of this tolerance is noted throughout the report.

Variable Air Volume (VAV) Terminals

The VAV's were calibrated in a call for max cooling and the correction factors are reported on the individual asset. While in a call for full cooling, the individual air devices were then balanced within design tolerance. The VAVs were then stroked to minimum cool and the airflow values reported. The VAV was then stroked to heating and the airflow values reported. It was verified that there was a sufficient temp rise on each VAV.

General Exhaust Fans

The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances of -0.02" wc to +0.02" wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.

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02-13-23 NIKE - LANHAM, MD

Project Issue Information

Issue Name : Temporary units RTU-4 and RTU-5 do not have an OA intake canopy

Description : RTU-4 and RTU-5 do not have any OA intake Canopy. These units supply 1680 CFM of OA to the building and will affect the building pressure not having the intake canopy. To alleviate the building pressure RTU-1 OA will increase from 190 CFM to 390 CFM and RTU-2 will increase from 575 CFM to 840 CFM.

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

Status : Open

Originated Date : 02/15/2023 - David Annan - National TAB

Project Issue File Details

RTU_No_OA.jpeg

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	BOH	1200	1226	1010	842	190	384	15.8%	31.3%						
RTU-2	STOCK ROOM	2500	2422	1925	1589	575	833	23.0%	34.4%						
RTU-3	SALES	2500	2453	1660	1614	840	839	33.6%	34.2%						
RTU-4	SALES	2500	2661	1660	2661	840	0	33.6%	0.0%						
RTU-5	SALES	2500	2619	1660	2619	840	0	33.6%	0.0%						
RTU-6	SOLAR ZONE	1200	1249	1200	1249	0	0	0.0%	0.0%						
EF-1	IT ROOM													1000	1064
EF-2	RESTROOMS													275	285
TOTALS		12400	12630	9115	10574	3285	2056			0	0	0	0	1275	1349

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3285	2056
TOTAL EXHAUST	1275	1349
NET AIRFLOW	2010	707

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0054
SIDE	-
REAR	0.0067
AVERAGE	**0.0061**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

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02-13-23 NIKE - LANHAM, MD

CheckList Information

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

CheckList Item Details

STORE FRONT

Storefront.jpeg

RTU-1

RTU-1.jpeg

RTU-2

RTU-2.jpeg

RTU-3

RTU-3.jpeg

RTU-4

RTU-4.jpeg

RTU-5

RTU-5.jpeg

RTU-6

RTU-6.jpeg

EF-1

EF-1.jpeg

EF-2

EF-2.jpeg

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	NotSubmitted
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.	Yes
All diffusers and grilles are installed and match design?	Yes
Thermostats have power?	Yes
All HVAC units and fans and powered and operational?	Yes
VAV diffusers (if applicable) are powered and responding to adjustment at thermostat?	Yes
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	Yes

Notes/Comments :

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02-13-23 NIKE - LANHAM, MD

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	NotSubmitted
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?	RTU-4 and RTU-5 do not have economizers due to those units being temporary.
Motors are all operating below the FLA rating?	Yes.
Are belts tight?	Yes.
If direct drive unit is the speed controller working.	NA
Is gas piping installed and valves turned on?	Yes.
Unit free of noticeable noise and vibration	Yes.
EF's	
Rotation is correct?	Yes.
Belts are tight?	NA
Grease cup installed on hood fan	NA
Hinge kit installed installed on hood fan?	NA
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	NA
Flex conduit is long enough so that fan can be completely tilted back?	NA
There is no major leakage around base of fan?	No major leakage.

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.

DOCUMENTATION

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

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	NotSubmitted
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".	RTU-1 and RTU-2 OA intakes were increased to compensate outside air needed to assist building pressure.
FABRIC DUCT STATIC PRESSURES (IF APPLICABLE)	
Take static pressures near takeoff for each fabric duct once balancing is completed. Input this into the "VEL (1)" field on the diffuser asset. If not a fabric duct then, put "N/A" into the "VEL (1)" field instead.	Yes.

Notes/Comments :

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02-13-23 NIKE - LANHAM, MD

CheckList Information

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

CheckList Item Details

FINAL TESTS	
BUILDING PRESSURE	
Building pressure at front & back doors (All Systems On)	Front: 0.0054" Rear:0.0067"
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	Yes.
CARRIER VFD PARAMETERS (IF APPLICABLE)	
Use Carrier provided VFD cable to verify VFD speed parameters for each unit (Defaults - high speed = 60Hz, low speed = 40Hz). Can adjust high speed parameter for balancing but requires that the low speed is proportionally adjusted. Record VFD speeds on the individual assets	Yes.
TEMPERATURES/HUMIDITIES	
Measure temperatures/humidities for outside air (taken in shade), return air, and supply air for each HVAC unit during full cooling and input into appropriate fields on the individual asset	Yes.
VAV DIFFUSERS (IF APPLICABLE)	
Each VAV-diffuser is calibrated for max airflow?	Yes.
Each VAV diffuser is set for minimum airflow? Record value in notes on the individual diffuser asset	Yes.

Notes/Comments :

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Project: 02-13-23 NIKE - LANHAM, MD

System/Unit: AHU/RTU

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Asset: RTU1 AREA:BOH

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	3622C0981
Model Num	48GCDM04	48GCDM04A2Q6A3W1C0
Type	RTU	RTU
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	28X14
Num Final Filter 1	-	2
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	N/L
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	1.2

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

Test Data		
	Design	**Actual**
SF CFM	1200	1226
SF RPM	-	2200
RA CFM	1010	842
OA CFM	190	384
RL Voltage	-	478/477/477
RL Amperage	-	0.4/0.4/0.5
SF Rotation	-	CCW
RA Damper Position	-	56%
Min OA Damper Position	-	44%
Min OA Damper Type	-	SBD
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.48"
Fan Suction SP	-	-0.84"
Fan Discharge SP	-	0.41"
Total ESP	0.8"	0.89"
Fan Total SP	-	1.25"

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

Completed By: David Annan

Notes: OA design is at 13%. OA 53.3 DB 34.9 WB Return 70.0 DB 44.1 WB Supply 93.4 DB 55.3 WB

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Project:02-13-23 NIKE - LANHAM, MD

AHU/RTU

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Diffuser Supply (GRD)

RTU1/BOH

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	RESTROOM CORRIDOR	CSD3	8	100	1	119	107	107	107.0
SGRD2	WOMENS RR	CSD3	6	50	1	87	49	49	98.0
SGRD3	MENS RR	CSD3	6	50	1	92	54	54	108.0
SGRD4	EMPLOYEE LOUNGE	CSD2	10	250	1	244	240	240	96.0
SGRD5	EMPLOYEE LOUNGE	CSD2	10	250	1	314	270	270	108.0
SGRD6	HC OFFICE	CSD1	8	150	1	164	144	144	96.0
SGRD7	ASM OFFICE	CSD1	8	175	1	190	180	180	102.9
SGRD8	ASM OFFICE	CSD1	8	175	1	200	182	182	104.0

Completed By: Sergio Del Toro on

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Project: 02-13-23 NIKE - LANHAM, MD

System/Unit: AHU/RTU

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Asset: RTU2 AREA:STOCKROOM

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	5122P70299
Model Num	48HCEE08	48HCEE08A2Q6A2W1J0
Type	RTU	RTU
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	Marathon
Frame	-	56HZ
Horsepower	-	2.4 BHP
Motor Rpm	-	1670
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	3.3

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4 1/2"
Motor Bore Size	-	1/2"
Motor Sheave SetPt	-	3.5 Turns Out
Fan Sheave Size	-	AFD74
Fan Sheave Bore	-	1"
Belt CL Distance	-	16 5/8"
Num of Belts	-	1
Belt Size	-	A48
Belt Alignment	-	Good

Test Data		
	Design	**Actual**
SF CFM	2500	2422
SF RPM	-	793
RA CFM	1925	1589
OA CFM	575	833
RL Voltage	-	476/478/477
RL Amperage	-	0.7/0.9/0.6
SF Rotation	-	CCW
RA Damper Position	-	65%
Min OA Damper Position	-	35%
Min OA Damper Type	-	SBD
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.20"
Fan Suction SP	-	-0.47"
Fan Discharge SP	-	0.90"
Total ESP	0.6"	1.10"
Fan Total SP	-	1.37"

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

Completed By: David Annan

Notes: OA design position is at 27% OA 54.8 DB 35.7 WB Return 70.0 DB 44.1 WB Supply 109.3 DB 60.1 WB

Diffuser Supply (GRD)

RTU2/STOCKROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	IT CLOSET	CSD3	10	250	1	178	243	243	97.2
SGRD2	STOCKROOM	FABRIC DUCT	NA	550	0.57"	343	547	547	99.5
SGRD3	STOCKROOM	FABRIC DUCT	NA	550	0.49"	526	519	519	94.4
SGRD4	STOCKROOM	FABRIC DUCT	NA	450	0.42"	655	433	433	96.2
SGRD5	STOCKROOM	FABRIC DUCT	NA	500	0.54"	623	489	489	97.8
SGRD6	EXIT CORRIDOR	WSG1	8X8	100	0.69	108	94	94	94.0
SGRD7	EXIT CORRIDOR	WSG1	8X8	100	0.69	120	97	97	97.0

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Project: 02-13-23 NIKE - LANHAM, MD

System/Unit: AHU/RTU

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Asset: RTU3 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	5122P70259
Model Num	48HCEE08	48HCDD08AQ6A2W1J0
Type	RTU	RTU
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	Marathon
Frame	-	56HZ
Horsepower	-	2.4 BHP
Motor Rpm	-	1670
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	3.3

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4 1/2"
Motor Bore Size	-	1/2"
Motor Sheave SetPt	-	3.5 Turns out
Fan Sheave Size	-	AFD74
Fan Sheave Bore	-	1"
Belt CL Distance	-	16 5/8"
Num of Belts	-	1
Belt Size	-	A48
Belt Alignment	-	Good

Test Data		
	Design	**Actual**
SF CFM	2500	2453
SF RPM	-	800
RA CFM	1660	1614
OA CFM	840	839
RL Voltage	-	477/476/477
RL Amperage	-	0.9/0.9/0.8
SF Rotation	-	CCW
RA Damper Position	-	65%
Min OA Damper Position	-	35%
Min OA Damper Type	-	SBD
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.41"
Fan Suction SP	-	-0.64"
Fan Discharge SP	-	0.81"
Total ESP	0.8"	1.22"
Fan Total SP	-	1.43"

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

Completed By: David Annan

Notes: OA 51.3 DB 33.7 WB Return 71.2 DB 45.5 WB Supply 122.8 DB 65.6 WB

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Project:02-13-23 NIKE - LANHAM, MD

AHU/RTU

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Diffuser Supply (GRD)

RTU3/SALES

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SALES	FABRIC DUCT	18	2500	0.56"	2120	2453	2453	98.1

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Project: 02-13-23 NIKE - LANHAM, MD

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU4 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4422P41919
Model Num	48HCEE08	48TCDD08A2A6A0A0AG0
Type	RTU	RTU
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	NA
OA Filter Size 1	-	NA
Num Final Filter 1	-	4
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	Marathon
Frame	-	56HZ
Horsepower	-	2.9 BHP
Motor Rpm	-	1735
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	3.8

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4 3/4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3 Turns out
Fan Sheave Size	-	AFD4W
Fan Sheave Bore	-	1"
Belt CL Distance	-	17 5/8"
Num of Belts	-	1
Belt Size	-	AX52
Belt Alignment	-	Good

Test Data		
	Design	**Actual**
SF CFM	2500	2661
SF RPM	-	786
RA CFM	1660	2661
OA CFM	840	0
RL Voltage	-	477/478/476
RL Amperage	-	0.9/1.1/1.1
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	NA
Min OA Damper Type	-	SBD
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.12"
Fan Suction SP	-	-0.42"
Fan Discharge SP	-	0.79"
Total ESP	0.8"	0.91"
Fan Total SP	-	1.21"

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

Completed By: David Annan

Notes: OA 52.6 DB 34.7 WB Return 70.2 DB 44.0 WB Supply 131.3 DB 69.1 WB // No OA intakes installed on the temporary RTU. Increased OA on other RTU's to compensate.

Diffuser Supply (GRD)

RTU4/SALES

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SALES	FABRIC DUCT		1300	0.26"	1464	1428	1428	109.8
SGRD2	SALES	FABRIC DUCT		700	0.27"	623	720	720	102.9
SGRD3	FITTING RM VEST	CSD4	8	100	1	131	97	97	97.0
SGRD4	FITTING RM VEST	CSD4	8	100	1	169	105	105	105.0
SGRD5	FITTING RM 1	CSD4	8	100	1	124	93	93	93.0
SGRD6	FITTING RM 2	CSD4	8	100	1	168	110	110	110.0
SGRD7	ACCESSIBLE FITTING RM	CSD4	8	100	1	145	108	108	108.0

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Project: 02-13-23 NIKE - LANHAM, MD

System/Unit: AHU/RTU

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Asset: RTU5 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4422P41914
Model Num	48HCEE08	48TCDD08A2A6A0A0G0
Type	RTU	RTU
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	NA
OA Filter Size 1	-	NA
Num Final Filter 1	-	4
Final Filter Size 1	-	16X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	Marathon
Frame	-	56HZ
Horsepower	-	2.9 BHP
Motor Rpm	-	1735
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	3.8

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4 3/4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3 Turns out
Fan Sheave Size	-	AFD84
Fan Sheave Bore	-	1"
Belt CL Distance	-	17 5/8"
Num of Belts	-	1
Belt Size	-	AX52
Belt Alignment	-	Good

Test Data		
	Design	**Actual**
SF CFM	2500	2619
SF RPM	-	783
RA CFM	1660	2619
OA CFM	840	0
RL Voltage	-	478/476/477
RL Amperage	-	0.8/1.2/1.0
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	NA
Min OA Damper Type	-	SBD
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.23"
Fan Suction SP	-	-0.49"
Fan Discharge SP	-	0.63"
Total ESP	0.8"	0.84"
Fan Total SP	-	1.12"

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

Completed By: David Annan

Notes: OA 50.6 DB 33.3 WB Return 72.0 DB 45.2 WB Supply 129.0 DB 69.4 WB // No OA intakes installed on the temporary RTU. Increased OA on other RTU's to compensate.

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Project:02-13-23 NIKE - LANHAM, MD

AHU/RTU

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Diffuser Supply (GRD)

RTU5/SALES

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SALES	FABRIC DUCT	16	1800	0.29"	1976	-	1976	109.8
SGRD2	SALES	FABRIC DUCT	10	700	0.27"	643	-	643	91.9

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Project: 02-13-23 NIKE - LANHAM, MD

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU6 AREA:SOLAR ZONE

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	3722C10153
Model Num	48GCDM04	48GCDM04A2Q6A3W1C0
Type	RTU	RTU
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	28X14
Num Final Filter 1	-	4
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	N/L
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	1.2

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

Test Data		
	Design	**Actual**
SF CFM	1200	1249
SF RPM	-	2186
RA CFM	1200	1249
OA CFM	0	0
RL Voltage	-	477/477/476
RL Amperage	-	0.4/0.4/0.4
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	0%
Min OA Damper Type	-	SBD
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.47"
Fan Suction SP	-	0.66"
Fan Discharge SP	-	0.92"
Total ESP	0.6"	1.39"
Fan Total SP	-	1.58"

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

Completed By: David Annan

Notes: OA 50.7 DB 33.4 WB Return 70.9 DB 44.6 WB Supply 90.2 DB 53.3 WB

National TAB

Project:02-13-23 NIKE - LANHAM, MD

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU6/SOLAR ZONE

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SOLAR ZONE	FABRIC DUCT	14	1200	0.49"	968	1249	1249	104.1

Completed By: Sergio Del Toro on

National TAB

Project: 02-13-23 NIKE - LANHAM, MD

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF1 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SQ-100-VG	SQ-100-VG-X
Serial Num	-	20375606
Type	INLINE	Inline
Configuration	HORIZONTAL	Horizontal

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	1/4	1/4
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.8
Service Factor	-	N/L

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

Test Data		
	Design	**Actual**
CFM	1000	1064
Fan RPM	1513	1610
Fan Rotation	-	CCW
Motor RPM	-	1610
RL Voltage	-	123
RL Amperage	-	1.6
Suction ESP	-	-0.17"
Discharge ESP	-	0.15"
Total ESP	-	0.32"

Completed By: David Annan

Notes:

National TAB

Project: 02-13-23 NIKE - LANHAM, MD

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF2 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	G-80-VG	G-80-VG
Serial Num	-	N/L
Type	DOWNBLAST	Downblast
Configuration	VERTICAL	Vertical

Motor Data		
	Design	**Actual**
Motor MFG	-	Vari-Green
Frame	-	N/L
Horsepower	1/6	1/10
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.38
Service Factor	-	N/L

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

Test Data		
	Design	**Actual**
CFM	275	285
Fan RPM	1444	1497
Fan Rotation	-	CCW
Motor RPM	-	1497
RL Voltage	-	123
RL Amperage	-	0.6
Suction ESP	-	-0.23
Discharge ESP	-	ATM
Total ESP	-	0.23"

Completed By: David Annan

Notes:

National TAB

Project:02-13-23 NIKE - LANHAM, MD

FAN - Exhaust

Comfort. Under control.

Diffuser Supply (GRD)

EF2/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	JANITORS CLOSET	CEG1	6	75	1	28	63	77	102.7
SGRD2	WOMEN RR	CEG1	8	100	1	119	80	103	103.0
SGRD3	MEN RR	CEG1	8	100	1	81	81	105	105.0

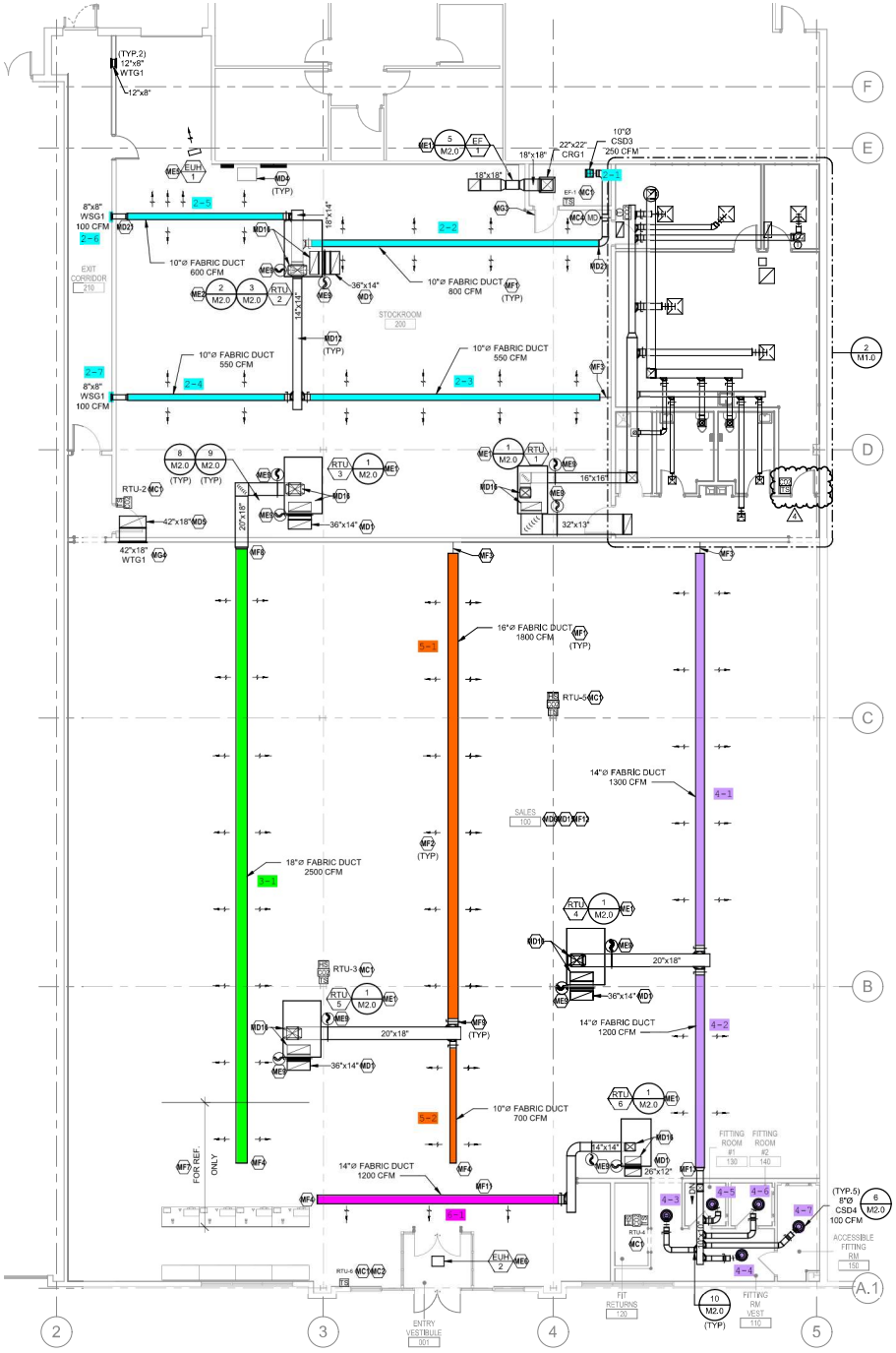
Completed By: Sergio Del Toro on

DISTRIBUTE AIRFLOW EVENLY ALONG FABRIC DUCT IN THE DIREC
ARROWS. ORIENT AND SIZE FABRIC DUCT DIFFUSER OPENINGS T
THROW VELOCITY HALF WAY TO THE NEAREST ADJACENT FABRI
NEAREST PARTITION/DEMISING WALL AS APPLICABLE. VENTS ON
BE LOCATED AT 22,5 DEGREES BELOW HORIZONTAL UNLESS NOT

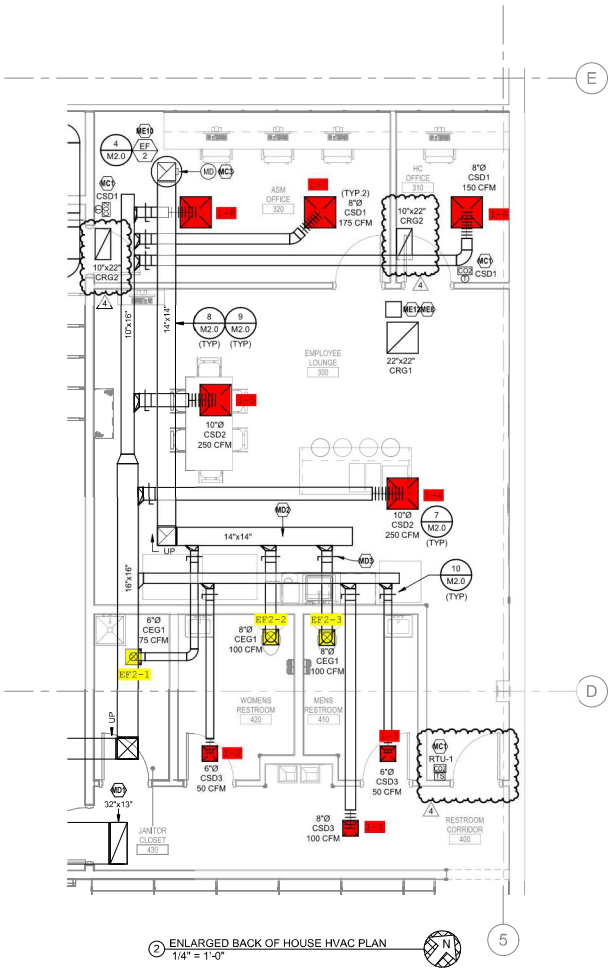
FABRIC DUCT COORDINATION NOTE:
DURING THE FIRST WEEK OF THE PROJECT, THE GENERAL CONT
SUPERINTENDENT, MECHANICAL SUB-CONTRACTOR, AND A REPR
"PRIHODA" SHALL MEET AT THE PROJECT SITE FOR CONFIRMATI
DIMENSIONS AND POTENTIAL OBSTRUCTIONS. THIS EVENT MUST
ORDERING OF ANY MATERIALS FROM "PRIHODA". CHANGE ORDE
FEES WILL NOT BE APPROVED DUE TO LACK OF ON-SITE COLLAB
MEASUREMENT DURING SITE MEETING AT PROJECT COMMENCE

FABRIC DUCT INSTALLATION NOTE:
INSTALL FABRIC DUCT ABOVE ARCHITECTURAL LIGHTING SYSTE
FABRIC DUCT INSTALLATION WITH GENERAL CONTRACTOR AND
CONTRACTOR SHALL VERIFY FABRIC DUCT IS INSTALLED SUCH T
CLASH WITH ARCHITECTURAL LIGHTING SYSTEM, INCLUDING LIG
ARCHITECTURAL LIGHTING SYSTEM GRID AND SUSPENSION CAB
SUSPENDED FIXTURES WHEN DEFLATED.

GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING TO AR
LANDLORD, AND BUILDING OFFICIAL/INSPECTOR A FINAL TEST AN
PER THE SPECIFICATIONS. PROVIDE TEST AND BALANCE REPORT
ENGINEER, AND LANDLORD PRIOR TO THE FINAL BUILDING INSPE



1 HVAC PLAN
1/8" = 1'-0"



2 ENLARGED BACK OF HOUSE HVAC PLAN
1/4" = 1'-0"

Date: 2/17/2023