

Report By:

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



**Report: TAB REPORT**  
**Function: Test, Adjust, & Balance**  
**Date: 10/10/2023**

**PROJECT**  
**10-09-23 NIKE UNITE - ANTIOCH, TN**

4060 CANE RIDGE PARKWAY

ANTIOCH, TX 37013

Client

Lakeview Construction

# National TAB

Project: 10-09-23 NIKE UNITE - ANTIOCH, TN

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Project: 10-09-23 NIKE UNITE - ANTIOCH, TN

## System/Unit: AHU/RTU



Asset: RTU 1

AREA: MULTI-ZONE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5842712
Model Num	CASRTU-1-E.154-15	CASRTU-1-E.154-15-5T
Type	-	DOAS
Configuration	-	Vertical
Num OA Filters 1	-	2
OA Filter Size 1	-	16" X 20" X 2"
Num Final Filter 1	-	8
Final Filter Size 1	-	16" X 16" X 2"

Motor Data		
	Design	Actual
Motor MFG	-	Nema
Frame	-	145T
Horsepower	-	1.5
Motor Rpm	-	1740
Phase	-	3
Rated Voltage	-	230
Rated Amperage	-	4.03

Electrical		
	Design	Actual
VFD Min Setpt	-	37
VFD Max Setpt	-	80

Test Data		
	Design	Actual
SF CFM	1320	1309
SF RPM	-	NA
RA CFM	-	1127
OA CFM	175	182
RL Voltage	-	357
RL Amperage	-	1.7
SF Rotation	-	CCW
Min OA Damper Position	-	5 VDC
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	-	NA
OA Temp (db/wb)	-	66
RA Temp (db/wb)	-	72.6
SA Temp (db/wb)	-	70.3

General		
	Design	Actual
Fan Rotation Correct	-	Yes
Unit Filters Clean	-	Yes

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## AHU/RTU



**Diffuser Supply (GRD)**

**RTU 1/MULTI-ZONE**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU 1-SGRD1				150	1	101	143	143	95.3
RTU 1-SGRD2				150	1	149	162	162	108.0
RTU 1-SGRD3				120	1	144	128	128	106.7
RTU 1-SGRD4				225	1	197	232	232	103.1
RTU 1-SGRD5				225	1	181	227	227	100.9
RTU 1-SGRD6				225	1	224	229	229	101.8
RTU 1-SGRD7				50	1	76	51	51	102.0
RTU 1-SGRD8				125	1	176	129	129	103.2
RTU 1-SGRD9				50	1	61	53	53	106.0
Total				1320		1309	1354	1354	102.58%

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## System/Unit: AHU/RTU



Asset: RTU 2

AREA:SINGLE ZONE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5482712
Model Num	CASRTU-1-E.304-18	CASRTU-1-E.304-18-7.5T
Type	-	DOAS
Configuration	-	Vertical
Num OA Filters 1	-	2
OA Filter Size 1	-	16" X 20" X 2"
Num Final Filter 1	-	8
Final Filter Size 1	-	16" X 16" X 2"

Motor Data		
	Design	Actual
Motor MFG	-	EC Blue
Frame	-	NA
Horsepower	-	5
Motor Rpm	-	2900
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	5.4

Test Data		
	Design	Actual
SF CFM	2580	2454
SF RPM	-	NA
RA CFM	-	2140
OA CFM	325	314
RL Voltage	-	490.7/490.2/485.1
RL Amperage	-	1.68/1.81/1.69
SF Rotation	-	CCW
Min OA Damper Position	-	5.6 VDC
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	-	NA
OA Temp (db/wb)	-	66
RA Temp (db/wb)	-	70.5
SA Temp (db/wb)	-	70.5

General		
	Design	Actual
Fan Rotation Correct	-	Yes
Unit Filters Clean	-	Yes

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## AHU/RTU



**Diffuser Supply (GRD)**

**RTU 2/SINGLE ZONE**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU 2-SGRD1				290	1	291	267	267	92.1
RTU 2-SGRD2				290	1	297	284	284	97.9
RTU 2-SGRD3				290	1	272	271	271	93.4
RTU 2-SGRD4				290	1	287	293	293	101.0
RTU 2-SGRD5				290	1	245	284	284	97.9
RTU 2-SGRD6				290	1	290	268	268	92.4
RTU 2-SGRD7				290	1	260	261	261	90.0
RTU 2-SGRD8				290	1	224	284	284	97.9
RTU 2-SGRD9				260	1	187	242	242	93.1
Total				2580		2353	2454	2454	95.12%

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## System/Unit: AHU/RTU



Asset: RTU 3

AREA: MULTI-ZONE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5842712
Model Num	CASRTU-1-E.604-20	CASRTU-3-E.604-24-15T
Type	-	DOAS
Configuration	-	Vertical
Num OA Filters 1	-	4
OA Filter Size 1	-	16" X 25" X 2"
Num Final Filter 1	-	8
Final Filter Size 1	-	20" X 25" X 2"

Motor Data		
	Design	Actual
Motor MFG	-	Nema
Frame	-	215T
Horsepower	-	5
Motor Rpm	-	1165
Phase	-	3
Rated Voltage	-	230
Rated Amperage	-	14.3

Electrical		
	Design	Actual
VFD Min Setpt	-	37
VFD Max Setpt	-	80

Test Data		
	Design	Actual
SF CFM	4500	4508
RA CFM	-	3331
OA CFM	1200	1177
RL Voltage	-	378
RL Amperage	-	6.6
SF Rotation	-	CCW
Min OA Damper Position	-	5.8VDC
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	-	NA
OA Temp (db/wb)	-	66
RA Temp (db/wb)	-	70.5
SA Temp (db/wb)	-	72.5

General		
	Design	Actual
Fan Rotation Correct	-	Yes
Unit Filters Clean	-	Yes

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## AHU/RTU



### VAV - Single Duct

#### RTU 3/MULTI-ZONE

Asset											
Asset Name	MFG	Model Num	Type	Inlet Size	Design Max CFM	Max CFM	Design Min CFM	Min CFM	Design Heat CFM	Heat CFM	Ak (max)
RTU 3-VAV1	TITUS	DESV		10"	600	583	300	287			1

### Diffuser Supply (GRD)

#### RTU 3/MULTI-ZONE

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU 3-SGRD1			14"	1125	1.06	828	1106	1106	98.3
RTU 3-SGRD2			14"	1125	1.06	977	1167	1167	103.7
RTU 3-SGRD3			14"	1125	1.06	948	1189	1128	100.3
RTU 3-SGRD4			14"	1125	1.06	814	1044	1107	98.4
Total				4500		3567	4506	4508	100.18%

#### RTU 3-VAV1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1									
SGRD2									
SGRD3									
SGRD4									
SGRD5									
SGRD6									
Total				0		0	0	0	0%

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## System/Unit: AHU/RTU



Asset: RTU 4

AREA: MULTI-ZONE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5482712
Model Num	CASRTU-1-E.604-18	CASRTU-3-E.604-18-15T
Type	-	DOAS
Configuration	-	Vertical
Num OA Filters 1	-	4
OA Filter Size 1	-	16" X 25" X 2"
Num Final Filter 1	-	8
Final Filter Size 1	-	20" X 25" X 2"

Motor Data		
	Design	Actual
Motor MFG	-	Nema
Frame	-	184T
Horsepower	-	5
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	230
Rated Amperage	-	13.6

Electrical		
	Design	Actual
VFD Min Setpt	-	37
VFD Max Setpt	-	80

Test Data		
	Design	Actual
SF CFM	4300	3953
SF RPM	-	NA
RA CFM	-	2716
OA CFM	1200	1237
RL Voltage	-	454
RL Amperage	-	6.3
SF Rotation	-	CCW
Min OA Damper Position	-	5.8 VDC
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	-	NA
OA Temp (db/wb)	-	66
RA Temp (db/wb)	-	70.6
SA Temp (db/wb)	-	73

General		
	Design	Actual
Fan Rotation Correct	-	Yes
Unit Filters Clean	-	Yes

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## AHU/RTU



### Diffuser Supply (GRD)

#### RTU 4/MULTI-ZONE

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU 4-SGRD1			14"	1075	1.06	497	1020	1020	94.9
RTU 4-SGRD2			14"	1075	1.06	873	1001	1001	93.1
RTU 4-SGRD3			14"	1075	1.06	574	895	895	83.3
RTU 4-SGRD4			14"	1075	1.06	1004	1037	1037	96.5
Total				4300		2948	3953	3953	91.93%

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## System/Unit: AHU/RTU



Asset: RTU 5

AREA: MULTI-ZONE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5482712
Model Num	CASRTU-1-E.604-24	CASRTU-1-E.604-24
Type	-	DOAS
Configuration	-	Vertical
Num OA Filters 1	-	4
OA Filter Size 1	-	16" X 25" X 2"
Num Final Filter 1	-	8
Final Filter Size 1	-	20" X 25" X 2"

Test Data		
	Design	Actual
SF CFM	5055	5171
SF RPM	-	NA
RA CFM	-	5171
OA CFM	0	0
RL Voltage	-	446
RL Amperage	-	7.2
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	0
Min OA Damper Type	-	ECON

Motor Data		
	Design	Actual
Motor MFG	-	Nema
Frame	-	215T
Horsepower	-	5
Motor Rpm	-	1165
Phase	-	3
Rated Voltage	-	430
Rated Amperage	-	14.3

Performance Data		
	Design	Actual
MA Plenum SP	-	NA
Fan Suction SP	-	NA
Fan Discharge SP	-	NA
Total ESP	-	NA
OA Temp (db/wb)	-	67.5
RA Temp (db/wb)	-	69.4
SA Temp (db/wb)	-	72.3

Electrical		
	Design	Actual
VFD Min Setpt	-	31
VFD Max Setpt	-	80

General		
	Design	Actual
Fan Rotation Correct	-	Yes
Unit Filters Clean	-	Yes

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## AHU/RTU



**Diffuser Supply (GRD)**

**RTU 5/MULTI-ZONE**

<b>Asset</b>									
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
SGRD1	ENTRY/CASH REGISTER	Round Fabric Duct	26"	5055	3.14	4653	5171	5171	102.3
Total				5055		4653	5171	5171	102.29%

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Project: 10-09-23 NIKE UNITE - ANTIOCH, TN

System/Unit: VAV - Single Duct



Asset: VAV1

AREA:

### Unit Data

	Design	Actual
MFG	TITUS	TITUS
Model Num	DESV	DESV
Type	-	6
Inlet Size	-	6

### Test Data

	Design	Actual
Design Max CFM	-	600
Max CFM	-	550
Design Min CFM	-	300
Min CFM	-	287
Design Heat CFM	-	543
Heat CFM	-	543
Ak (max)	-	1

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## VAV - Single Duct



### Diffuser Supply (GRD)

#### VAV1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1		6	6	100					-
SGRD2		6	6	100					-
SGRD3		6	6	100					-
SGRD4		6	6	100					-
SGRD5		6	6	100					-
SGRD6		6	6	100					-
Total				600		0	0	0	0%

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Project: 10-09-23 NIKE UNITE - ANTIOCH, TN

System/Unit: VAV - Single Duct



Asset: RTU 3-VAV1

AREA:

### Unit Data

	Design	Actual
MFG	TITUS	TITUS
Model Num	DESV	DESV
Inlet Size	-	10"

### Test Data

	Design	Actual
Design Max CFM	-	600
Max CFM	-	583
Design Min CFM	-	300
Min CFM	-	287
Ak (max)	-	1

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## VAV - Single Duct



### Diffuser Supply (GRD)

#### RTU 3-VAV1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1									
SGRD2									
SGRD3									
SGRD4									
SGRD5									
SGRD6									
Total				0		0	0	0	0%

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Project: 10-09-23 NIKE UNITE - ANTIOCH, TN

System/Unit: FAN - Exhaust



Asset: EF1

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	G-080-VG	G-080-VG-1-17-X
Serial Num	-	22180861
Type	-	Downblast
Configuration	-	Vertical

Test Data		
	Design	Actual
CFM	325	347
Fan RPM	-	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	10
RL Voltage	-	122
RL Amperage	-	1.26
Total ESP	-	0.14"
Fan Inlet SP	-	0.14"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	Vari-Green
Frame	-	NA
Horsepower	-	0.1
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	1.38
Service Factor	-	NA
Efficiency	-	NA

Completed By: Jordan Best on 10/11/2023

Notes:  
Speed controller set at 10/10

Written By: Jordan Best on 10/10/2023

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Project:10-09-23 NIKE UNITE - ANTIOCH, TN

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF1/

Asset												
Asset Name	Model Num	MFG	Type	Size	DESIGN CFM	AK	VEL(1)	CFM(1)	VEL(2)	CFM(2)	FINAL CFM	% to design
EF1-EGRD1	NA	NA			115	1		142		118	118	102.6
EF1-EGRD2	NA	NA			115	1		98		120	120	104.3
EF1-EGRD3	NA	NA			95	1		103		109	109	114.7
Total					325			343		347	347	106.77%

Asset	Notes	Date	Written By
EF1-EGRD1	Men's RR	10/10/2023	Jordan Best
EF1-EGRD2	Women's RR	10/10/2023	Jordan Best
EF1-EGRD3	Janitors Closet	10/10/2023	Jordan Best

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Project: 10-09-23 NIKE UNITE - ANTIOCH, TN

System/Unit: FAN - Exhaust



Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	SQ-100-VG	SQ-100-VG
Serial Num	-	NA
Type	-	Ceiling
Configuration	-	Horizontal

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

Test Data		
	Design	Actual
CFM	1000	978
Fan RPM	-	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	10
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	ATM

Completed By: Jordan Best on 10/11/2023

Notes:  
IT Room. Fan speed fully maximized.

Written By: Jordan Best on 10/10/2023