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: 02/14/2023

PROJECT

02-13-23 FAMILY DOLLAR - BRODHEAD, WI

2410 1ST CENTER AVE

BRODHEAD, WI 53520

Client

Oliphant Heating

208 WOLLARD BLVD

RICHMOND, MO

National TAB

Project: 02-13-23 FAMILY DOLLAR - BRODHEAD, WI

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 (Roof Top Units) w/ Diffusers

Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles

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

Final Building Tests

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

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	STORAGE	1750	1693	1600	1534	150	159	8.6%	9.4%						
RTU-2	WEST SALES	2800	3206	2150	2584	650	622	23.2%	19.4%						
RTU-3	EAST SALES	2800	3165	2150	2496	650	669	23.2%	21.1%						
RTU-4	SOUTH SALES	3500	3342	2725	2551	775	791	22.1%	23.7%						
EF-1	RESTROOM													75	91
EF-2	RESTROOM													75	92
TOTALS		10850	11406	8625	9165	2225	2241			0	0	0	0	150	183

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2225	2241
TOTAL EXHAUST	150	183
NET AIRFLOW	2075	2058

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.004"
SIDE	
REAR	0.004"
AVERAGE	**0.004**

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:

Comfort. Under control.

02-13-23 FAMILY DOLLAR - BRODHEAD, WI

CheckList Information

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

CheckList Item Details

STORE FRONT

Broadhead-WI.jpeg

RTU-1

RTU-1.jpeg

RTU-2

RTU-2.jpeg

RTU-3

RTU-3.jpeg

RTU-4

RTU-4.jpeg

EF-1

EF-1.jpeg

EF-2

EF-2.jpeg

Notes/Comments :

Comfort. Under control.

02-13-23 FAMILY DOLLAR - BRODHEAD, WI

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

Notes/Comments :

Comfort. Under control.

02-13-23 FAMILY DOLLAR - BRODHEAD, WI

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?	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?	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, Direct Drive
There is no major leakage around base of fan?	NA
Is the motor operating below the motor FLA rating?	Not Read
For restroom fan(s) is the back draft damper installed and can it fully open?	NA
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 :

Comfort. Under control.

02-13-23 FAMILY DOLLAR - BRODHEAD, WI

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".	NA

Notes/Comments :

Comfort. Under control.

02-13-23 FAMILY DOLLAR - BRODHEAD, WI

CheckList Information

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

CheckList Item Details

FINAL TESTS

ADDITIONAL

Thermostats are programmed?	No, Thermostats were temporarily installed in return duct at time of Balance.

Notes/Comments :

National TAB

Project: 02-13-23 FAMILY DOLLAR - BRODHEAD, WI

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU1 AREA:STORAGE

Unit Data		
	Design	**Actual**
MFG	CARRIER	TRANE
Serial Num	-	22293512PA
Model Num	48GCE	GBC048A3EMB
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	27X13.5
Num Final Filter 1	-	4
Final Filter Size 1	-	16X16X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	1.4	1.0
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	4.0

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VL34
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	2 TURNS OPEN
Fan Sheave Size	-	5.25"
Fan Sheave Bore	-	3/4"
Belt CL Distance	-	14.5"
Num of Belts	-	1
Belt Size	-	AX40
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	1750	1693
SF RPM	-	877
RA CFM	1600	1534
OA CFM	150	159
RL Voltage	-	210/210/210
RL Amperage	-	2.7/2.9/2.7
SF Rotation	-	CCW, CORRECT
Min OA Damper Position	-	1/4"
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	E

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.27"
Fan Suction SP	-	-0.51"
Fan Discharge SP	-	0.32"
Total ESP	1.0"	0.59"
Fan Total SP	-	0.83"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES [1]
Condensate Drain Installed	-	YES

Completed By: Michael McDonnell

Notes: [1] CONSTRUCTION FILTERS STILL INSTALLED. RECOMMEND REPLACEMENT AT TURNOVER. [2] DIFFUSER TOTAL DID NOT MATCH SCHEDULED SUPPLY AIRFLOW. PROPORTIONALLY INCREASED DIFFUSERS, EXCLUDING RR, TO MATCH SCHEDULED AIRFLOW.

National TAB

Project:02-13-23 FAMILY DOLLAR - BRODHEAD, WI

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU1/STORAGE

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	STORAGE	D	14X6	350	0.46	383	365	365	104.3
SGRD2	STORAGE	D	14X6	350	0.46	267	322	322	92.0
SGRD3	STORAGE	D	14X6	350	0.46	282	334	334	95.4
SGRD4	STORAGE	D	14X6	350	0.46	328	319	319	91.1
SGRD5	RR VESTIBULE	A	8"	125	1.0	126	130	130	104.0
SGRD6	OFFICE	A	8"	125	1.0	190	118	118	94.4
SGRD7	RESTROOM	C	8"	50	1.0	143	53	53	106.0
SGRD8	RESTROOM	C	8"	50	1.0	184	52	52	104.0

Completed By: Michael McDonnell on

National TAB

Project: 02-13-23 FAMILY DOLLAR - BRODHEAD, WI

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU2 AREA:WEST SALES

Unit Data		
	Design	**Actual**
MFG	CARRIER	TRANE
Serial Num	-	222720004MX
Model Num	48FCE	GBC090A3EMA
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35.5X19
Num Final Filter 1	-	4
Final Filter Size 1	-	18X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	2.4	2.0
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	200-230
Rated Amperage	-	6.3-6.2

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP60
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	0 TURNS OPEN
Fan Sheave Size	-	BK115
Fan Sheave Bore	-	1"
Belt CL Distance	-	19.5"
Num of Belts	-	1
Belt Size	-	B66
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	2800	2980
SF RPM	-	914
RA CFM	2150	2358
OA CFM	650	622
RL Voltage	-	211/210/210
RL Amperage	-	6.1/6.0/6.1
SF Rotation	-	CCW, CORRECT
Min OA Damper Position	-	1/2"
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	D

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.41"
Fan Suction SP	-	-0.62"
Fan Discharge SP	-	0.67"
Total ESP	1.0"	1.08"
Fan Total SP	-	1.29"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES [1]
Condensate Drain Installed	-	YES

Completed By: Michael McDonnell

Notes: [1] SUPPLY AIRFLOW MEASURED AS 3206 CFM. THIS IS WITHIN ACCEPTABLE RANGE FOR A 7.5 TON UNIT BUT IS SLIGHTLY HIGH BASED ON DESIGN. THE MOTOR SHEAVE IS DEFECTIVE FROM THE FACTORY AND SEIZED AT 0 TURNS OPEN. NEW PULLEY IS ORDERED FROM TRANE BUT ON BACK ORDER. AIRFLOW OF 2980 CFM AND CALCULATED USING FAN LAW BASED ON MFG PITCH DIAMETER ONCE PULLEY IS REPLACED AND SET TO POSITION OF 2 TURNS OPEN (850 RPM) TO SHOW UNIT WILL BE WITHIN DESIGN. PHOTO DOCUMENATION TO BE PROVIDED BY CONTRACTOR ONCE COMPLET

National TAB

Project:02-13-23 FAMILY DOLLAR - BRODHEAD, WI

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU2/WEST SALES

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SALES	B	12"	350	1.0	431	398	370	105.7
SGRD2	SALES	B	12"	350	1.0	486	395	367	104.9
SGRD3	SALES	B	12"	350	1.0	367	403	375	107.1
SGRD4	SALES	B	12"	350	1.0	402	410	381	108.9
SGRD5	SALES	B	12"	350	1.0	419	411	382	109.1
SGRD6	SALES	B	12"	350	1.0	336	394	366	104.6
SGRD7	SALES	B	12"	350	1.0	509	395	367	104.9
SGRD8	SALES	B	12"	350	1.0	368	400	372	106.3

Completed By: Michael McDonnell on

National TAB

Project: 02-13-23 FAMILY DOLLAR - BRODHEAD, WI

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU3 AREA:EAST SALES

Unit Data		
	Design	**Actual**
MFG	CARRIER	TRANE
Serial Num	-	222720018MX
Model Num	48FCE	GBC090A3EMA
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35.5X19
Num Final Filter 1	-	4
Final Filter Size 1	-	18X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	2.4	2.0
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	200-230
Rated Amperage	-	6.3-6.2

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP60
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	0 TURNS OPEN
Fan Sheave Size	-	BK115
Fan Sheave Bore	-	1"
Belt CL Distance	-	20"
Num of Belts	-	1
Belt Size	-	B66
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	2800	2942
SF RPM	-	844
RA CFM	2150	2273
OA CFM	650	669
RL Voltage	-	210/210/210
RL Amperage	-	5.4/5.3/5.4
SF Rotation	-	CCW, CORRECT
Min OA Damper Position	-	ECONOMIZER
Min OA Damper Type	-	1/2"
OA Enthalpy Setpt	-	D

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.54"
Fan Suction SP	-	-0.65"
Fan Discharge SP	-	0.68"
Total ESP	1.0"	1.22"
Fan Total SP	-	1.33"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES [1]
Condensate Drain Installed	-	YES

Completed By: Michael McDonnell

Notes: [1] SUPPLY AIRFLOW MEASURED AS 3165 CFM. THIS IS WITHIN ACCEPTABLE RANGE FOR A 7.5 TON UNIT BUT IS SLIGHTLY HIGH BASED ON DESIGN. THE MOTOR SHEAVE IS DEFECTIVE FROM THE FACTORY AND SEIZED AT 0 TURNS OPEN. NEW PULLEY IS ORDERED FROM TRANE BUT ON BACK ORDER. AIRFLOW OF 2942 CFM AND CALCULATED USING FAN LAW BASED ON MFG PITCH DIAMETER ONCE PULLEY IS REPLACED AND SET TO POSITION OF 2 TURNS OPEN (844 RPM) TO SHOW UNIT WILL BE WITHIN DESIGN. PHOTO DOCUMENATION TO BE PROVIDED BY CONTRACTOR ONCE COMPLET

National TAB

Project:02-13-23 FAMILY DOLLAR - BRODHEAD, WI

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU3/EAST SALES

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SALES	B	12"	350	1.0	368	385	358	102.3
SGRD2	SALES	B	12"	350	1.0	465	403	374	106.9
SGRD3	SALES	B	12"	350	1.0	354	398	370	105.7
SGRD4	SALES	B	12"	350	1.0	414	397	369	105.4
SGRD5	SALES	B	12"	350	1.0	425	401	373	106.6
SGRD6	SALES	B	12"	350	1.0	354	384	357	102.0
SGRD7	SALES	B	12"	350	1.0	472	405	377	107.7
SGRD8	SALES	B	12"	350	1.0	379	392	364	104.0

Completed By: Michael McDonnell on

National TAB

Project: 02-13-23 FAMILY DOLLAR - BRODHEAD, WI

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU4 AREA:SOUTH SALES

Unit Data		
	Design	**Actual**
MFG	CARRIER	TRANE
Serial Num	-	222720043MX
Model Num	48FCE	GBC120A3EMA
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35.5X19
Num Final Filter 1	-	6
Final Filter Size 1	-	14X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	3	3.0
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	200-230
Rated Amperage	-	8.8-8.7

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP60
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	BK115
Fan Sheave Bore	-	1"
Belt CL Distance	-	20"
Num of Belts	-	1
Belt Size	-	B66
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	3500	3342
SF RPM	-	884
RA CFM	2725	2551
OA CFM	775	791
RL Voltage	-	211/212/211
RL Amperage	-	6.7/6.6/6.5
SF Rotation	-	CCW, CORRECT
Min OA Damper Position	-	1/2"
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	D

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.49"
Fan Suction SP	-	-0.65"
Fan Discharge SP	-	0.68"
Total ESP	1.00"	1.17"
Fan Total SP	-	1.33"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES [1]
Condensate Drain Installed	-	YES

Completed By: Michael McDonnell

Notes: [1] CONSTRUCTION FILTERS STILL INSTALLED, RECOMMEND REPLACEMENT AT TURNOVER. [2] DCV OA AIRFLOW: 381 CFM @ 1/4" OPEN.

National TAB

Project:02-13-23 FAMILY DOLLAR - BRODHEAD, WI

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU4/SOUTH SALES

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	SALES	B	12"	440	1.0	422	422	422	95.9
SGRD2	SALES	B	12"	435	1.0	428	428	428	98.4
SGRD3	SALES	B	12"	435	1.0	406	406	406	93.3
SGRD4	SALES	B	12"	440	1.0	414	414	414	94.1
SGRD5	SALES	B	12"	440	1.0	410	410	410	93.2
SGRD6	SALES	B	12"	435	1.0	423	423	423	97.2
SGRD7	SALES	B	12"	435	1.0	403	403	403	92.6
SGRD8	SALES	B	12"	440	1.0	436	436	436	99.1

Completed By: Michael McDonnell on

National TAB

Project: 02-13-23 FAMILY DOLLAR - BRODHEAD, WI

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	BROAN
Model Num	SP-B110	SP-B110
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	80W	NL
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	91
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	SINGLE SPEED [2]
RL Voltage	-	NR [1]
RL Amperage	-	NR [1]
Total ESP	0.25"	NR [1]
Fan Inlet SP	-	ATM
Fan Discharge SP	-	NR [1]

Completed By: Michael McDonnell

Notes: [1] COULD NOT ACCESS SAFELY [2] SINGLE SPEED FAN, UNABLE TO REDUCE AIRFLOW.

National TAB

Project: 02-13-23 FAMILY DOLLAR - BRODHEAD, WI

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF2 AREA:RESTROOM

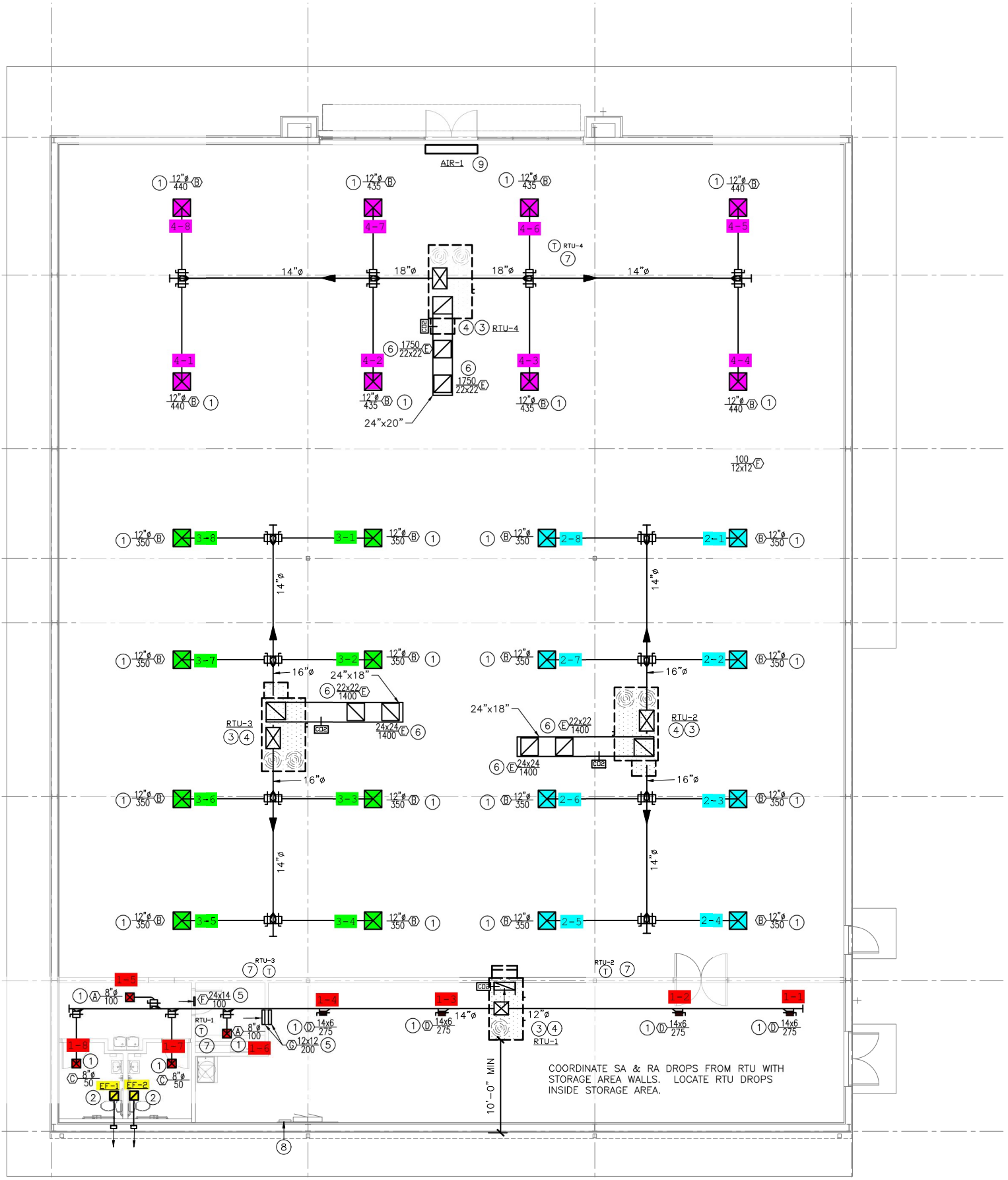
Unit Data		
	Design	**Actual**
MFG	GREENHECK	BROAN
Model Num	SP-B110	SP-B110
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	80W	NL
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	92
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	SINGLE SPEED [2]
RL Voltage	-	NR [1]
RL Amperage	-	NR [1]
Total ESP	0.25"	NR [1]
Fan Inlet SP	-	ATM
Fan Discharge SP	-	NR [1]

Completed By: Michael McDonnell

Notes: [1] COULD NOT ACCESS SAFELY [2] SINGLE SPEED FAN, UNABLE TO REDUCE AIRFLOW.



1 MECHANICAL HVAC PLAN
SCALE: 1/8" = 1'-0"