

Report By:

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



Report: PRELIM TAB REPORT
Function: Test, Adjust, & Balance
Date: 11/12/2024
Completed By: National TAB

PROJECT
Warby Parker (Liberty Twp, OH)

7139 Foundry Row

Liberty Township, OH 45069

Client

Champion Commercial HVAC

2638 Tem Mile Rd.

Melbourne, KY 41059

National TAB

Project: Warby Parker (Liberty Twp, OH)

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Issue List

- Diffuser 1-3 missing damper.
- Loose flex duct connections.
- Motorized dampers cannot be controlled/balanced.
- RTU-1 Damper cables do not function or are broken.



Warby Parker (Liberty Twp, OH)

Project Issue Information

Issue Name :	Diffuser 1-3 missing damper.		
Description :	Diffuser 1-3 missing damper.		
Created By :	National TAB	Assigned To :	National TAB - Nick Payne
Status :	Open		
Priority :	Medium	Asset Tag :	EGRD3
Originated Date :	11/12/2024 - Cody Collett - National TAB		



Warby Parker (Liberty Twp, OH)

Project Issue Information

Issue Name : Loose flex duct connections.
Description : Multiple diffusers found to have extremely loose flex duct connections that came off when barely touched.
Created By : National TAB **Assigned To :** National TAB - Nick Payne
Status : Open
Priority : Medium **Asset Tag :** RTU1
Originated Date : 11/13/2024 - Cody Collett - National TAB



Warby Parker (Liberty Twp, OH)

Project Issue Information

Issue Name : Motorized dampers cannot be controlled/balanced.

Description : Motorized dampers operate independently in each room and fully open or close based on space demand and cannot be set to a specific position. Motorized dampers cannot be controlled/balanced for diffusers 1-5, 1-16, 1-17. Motors were temporarily disconnected and damper put in a fully open position for testing.

Created By : National TAB **Assigned To :** National TAB - Nick Payne

Status : Open

Priority : Medium **Asset Tag :** RTU1

Originated Date : 11/12/2024 - Cody Collett - National TAB



Warby Parker (Liberty Twp, OH)

Project Issue Information

Issue Name : RTU-1 Damper cables do not function or are broken.

Description : Damper cables do not function or are broken on diffusers 1-1, 1-4, 1-6, 1-9, 1-13

Created By : National TAB **Assigned To :** National TAB - Nick Payne

Status : Open

Priority : [Medium](#) **Asset Tag :**

Originated Date : 11/12/2024 - Cody Collett - National TAB

Asset: RTU-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	Carrier
Serial Num	-	4024P64019
Model Num	NA	50FC - N08B2M6A8U3F0
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	35"x20"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x16"

Test Data		
	Design	Actual
SF CFM	2600	2651
RA CFM	2280	2281
OA CFM	320	343
RL Voltage	460	491/492/488
RL Amperage	-	2.3
OA Damper Position	-	2%

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	3
Service Factor	-	NL

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.93"
Fan Suction SP	-	-1.49"
Fan Discharge SP	-	0.31"
Total ESP	0.80	1.24"
Fan Total SP	-	1.8"

Unit Data - PHOTO LOG



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Completed By: Cody Collett on 11/12/2024

Notes:
Final BP -0.03"
BP with equipment off -0.04
Building is not a stand alone building and there are multiple KEF's serving other spaces.

Unit total flows are in design; diffusers were unable to be balanced due to a large amount of nonfunctional dampers.



National TAB

Project: Warby Parker (Liberty Twp, OH)



AHU/RTU

Diffuser Supply (GRD)

RTU-1/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1		S2	8	130	231	231	177.7
SGRD2		S2	6	60	61	61	101.7
SGRD3		S1	8	140	244	244	174.3
SGRD4		S2	8	130	199	199	153.1
SGRD5		S1	8	140	115	115	82.1
SGRD6		S2	8	130	182	182	140.0
SGRD7		S2	8	130	88	88	67.7
SGRD8		LS	10	200	120	120	60.0
SGRD9		S3	8	120	159	159	132.5
SGRD10		S3	8	120	122	122	101.7
SGRD11		LS	10	200	124	124	62.0
SGRD12		S3	8	120	130	130	108.3
SGRD13		S3	8	120	187	187	155.8
SGRD14		LS	10	200	117	117	58.5
SGRD15		LS	10	200	119	119	59.5
SGRD16		LS	10	200	114	114	57.0
SGRD17		S1	8	100	161	161	161.0
SGRD18		S2	8	160	178	178	111.3
Total				2600	2651	2651	101.96%

Diffuser Ret/Exh (GRD)

RTU-1/

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	R1	6X6	140	1	218	197	171	122.1
EGRD2	R1	20X12	1500	1	1675	1652	1438	95.9
EGRD3	R2	6X6	140	1	178	158	137	97.9
EGRD4	R1	6X6	100	1	239	177	154	154.0
EGRD5	R2	10X8	260	1	202	165	143	55.0
EGRD6	R2	8X6	140	1	292	274	238	170.0
Total			2280		2804	2623	2281	100.04%

Completed By: Cody Collett on 11/12/2024

Asset: EF-1

AREA:RESTROOM

Unit Data		
	Design	Actual
MFG	NA	NA
Model Num	NA	NA
Serial Num	-	NL
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	75	95
RL Voltage	-	120
RL Amperage	-	1.2
Total ESP	0.30	NA

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	-	NL
Motor Rpm	950	950
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.15
Service Factor	-	NL

Motor Data - PHOTO LOG



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Completed By: Cody Collett on 11/12/2024

Notes:
Single speed fan; unable to reduce CFM.

Written By: Cody Collett on 11/12/2024



THE GENERAL CONTRACTOR AND/OR ALL SUB-CONTRACTORS WORKING FROM THESE PLANS AND SPECIFICATIONS ARE NOT TO SCALE SUCH INFORMATION BUT TO CONTACT THE ARCHITECT OR HIS REPRESENTATIVE REGARDING MEASUREMENTS, IF SUCH MEASUREMENTS DO NOT APPEAR CORRECT, ADD UP PROPERLY OR SCALE CORRECTLY TO THE INDICATED SIZE.

ENGINEER

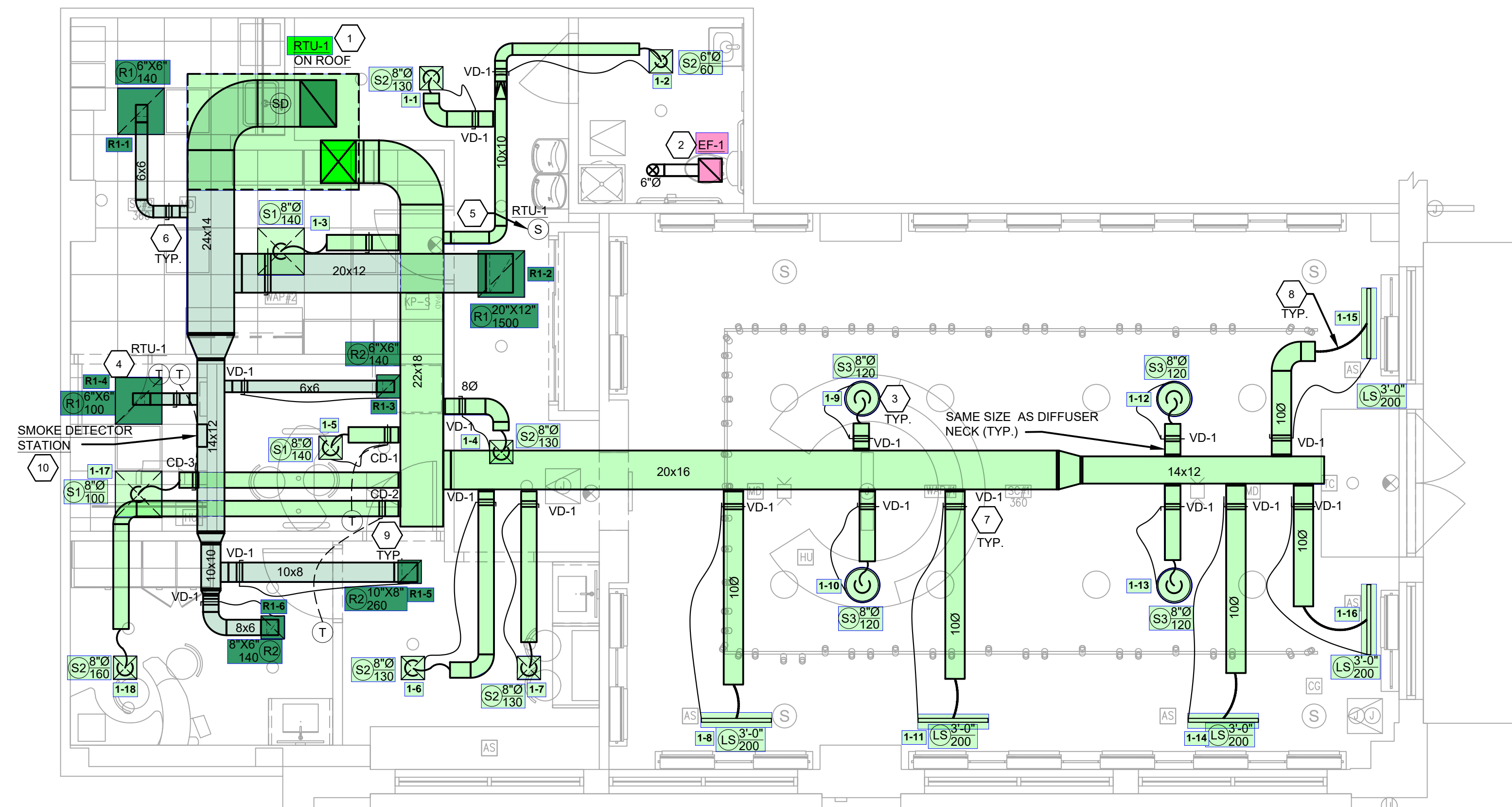


PROJECT NUMBER: 240238 DATE: 06.07.2024

DRAWN BY: SL CHECK BY: JTS

THESE DRAWINGS WERE COMPLETED UNDER THE DIRECT SUPERVISION OF: JTS

ISSUED FOR CLIENT: 05.29.24
ISSUED FOR LL PERMIT + BID: 06.07.24



1 MECHANICAL PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES

- A. THE GENERAL CONTRACTOR IS RESPONSIBLE AT THE BEGINNING OF THE PROJECT TO MEASURE THE SPACE WHILE REVIEWING THE ARCHITECT'S DRAWINGS TO VERIFY THAT THE INFORMATION CONTAINED IN THE MECHANICAL DOCUMENTS, ON WHICH HE/SHE QUOTED TO THE CLIENT, ARE COMPATIBLE WITH THE WORK TO BE PERFORMED AND THAT ALL SPACES ARE SUFFICIENT IN SIZE FOR THE WORK TO BE COMPLETED INCLUDING WIDTHS, LENGTHS, HEIGHTS, ETC.
- B. ALL MECHANICAL EQUIPMENT / DUCTWORK TO BE MOUNTED / INSTALLED TIGHT TO STRUCTURE.
- C. DUCTWORK MOUNTING SHALL CONFORM TO SMACNA STANDARDS FOR HANGERS AND SUPPORTS.
- D. ALL SUPPLY/RETURN DUCTWORK SHALL BE INTERNALLY LINED IF IT'S NOT EXTERNALLY INSULATED.

KEY NOTES

- 1. INSTALL NEW RTU PER MANUFACTURER'S IOM AND MAINTAIN CLEARANCES. TRANSITION DUCT TO FULL SIZE CONNECTION AT UNIT AS REQUIRED. REFER TO DETAIL 9/M-103.
- 2. PROVIDE NEW TOILET EXHAUST FAN PER SCHEDULE ON M-101. INTERLOCK FAN WITH LIGHT SWITCH. NEW 6" EXHAUST DUCT UP TO ROOF AND TERMINATE INTO A ROOF CAP, EQUIVALENT TO GREENHECK MODEL GRSR SIZE 8. PROVIDE WITH INTEGRAL BIRDSCREEN, PREFABRICATED ROOF CURB AND GRAVITY BACKDRAFT DAMPER. FIELD VERIFY LOCATION AND DISTANCE IN FIELD TO MAINTAIN A MINIMUM DISTANCE OF 10" FROM AIR INTAKE.
- 3. 1-SLOT ROUND DIFFUSER. COORDINATE DIFFUSER LOCATION WITH TRACK LIGHTS, SPEAKERS AND EXISTING STRUCTURE. TRACK LIGHTS AND SPEAKER LOCATIONS SHALL NOT HAVE TO BE RELOCATED WITHOUT PRIOR APPROVAL FROM ARCHITECT AND/OR WARBY PARKER PM. MECHANICAL CONTRACTOR SHALL COORDINATE DIFFUSER LAYOUTS WITH ALL SUB-CONTRACTORS AND TRADES, PRIOR TO ANY FABRICATION OF DUCTWORK.
- 4. PROVIDE NEW THERMOSTAT, REFER TO SHEET M-101 FOR THERMOSTAT SPECIFICATION. WIRE BACK TO (N) RTU-1 ON ROOF. RUN WIRE IN CONDUIT.
- 5. PROVIDE NEW COMPATIBLE BUTTON PROBE TEMPERATURE SENSOR. MOUNT ON WALL AT LOCATION SHOWN AT 60" AFF. WIRE BACK TO THERMOSTAT LOCATED AT MANAGER'S OFFICE. RUN THE WIRE IN CONDUIT.
- 6. PROVIDE MANUAL VOLUME DAMPER WITH LOCKING QUADRANT IN EASILY ACCESSIBLE LOCATION WHEN POSSIBLE. PROVIDE DIFFUSER MOUNTED DAMPERS WHERE DUCT MOUNTED DAMPER WOULD BE INACCESSIBLE. TYPICAL OF BACK OF HOUSE.
- 7. PROVIDE BOWDEN CABLE CONTROLS AS SHOWN (VD-1). COORDINATE EXACT VOLUME DAMPER LOCATION IN FIELD. SEE M-101 FOR PRODUCT SPECIFICATIONS.
- 8. FLEXIBLE DUCT ALLOWED FOR FINAL CONNECTION TO DIFFUSER ONLY. FLEXIBLE DUCT NOT TO EXCEED 5'-0" IN TOTAL LENGTH.
- 9. GENERAL CONTRACTOR TO PROVIDE ACCESS PANELS FOR CD. REFER TO ARCHITECTURAL PLANS FOR ACCESS PANEL DETAILS AND SPECIFICATION.
- 10. SMOKE DETECTOR TEST STATION (SDT) IN MANAGER'S OFFICE WIRE BACK TO RTU FACTORY MOUNTED RETURN AIR SMOKE DETECTOR. PROVIDE A NEW IONIZATION OR PHOTO ELECTRIC TYPE SMOKE DETECTOR INSTALLED IN THE RETURN DUCT. REFER TO DETAIL 8/M-103.

LIBERTY CENTER
7139 FOUNDRY ROW
SPACE F-122
LIBERTY TOWNSHIP, OH 4506

DRAWING NO.

M-102

MECHANICAL PLAN

JEREMY T. SMITH

EEA CONSULTING ENGINEERS

