

Report By:

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



Report: TAB

Function: Test, Adjust, & Balance

Date: 04/24/2025

Completed By: National TAB

PROJECT

8589 Hesperian & S St (Hayward CA)

20473 Hesperian Blvd

Hayward, CA 94541

Client

B&M Builders, Inc.

11330 Sunrise Park Drive

Suite C

Rancho Cordova, CA 95742

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Project: 8589 Hesperian & S St (Hayward CA)

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Issue List

- RTU-1, 2, AND 3 DO NOT HAVE ECONOMIZER CONTROLLERS INSTALLED
- RTU-2 FAN AND HEATING ISSUES.



8589 Hesperian & S St (Hayward CA)

Project Issue Information

Issue Name : RTU-1, 2, AND 3 DO NOT HAVE ECONOMIZER CONTROLLERS INSTALLED
Description : RTU-1, 2, and 3 do not have economizer controllers installed. Units had to have OA manually set. Recommend to have controllers installed for proper operations.
Created By : National TAB **Assigned To :** National TAB - Zack Eismin
Status : Open
Priority : High **Asset Tag :**
Originated Date : 04/24/2025 - Zack Eismin - National TAB

Project Issue File Details





8589 Hesperian & S St (Hayward CA)

Project Issue Information

Issue Name : RTU-2 FAN AND HEATING ISSUES.
Description : RTU-2's fan will ramp up and down periodically causing inconsistent airflows. The unit also trips its internal transformer when heating is energized. Recommend to have unit serviced for proper operations.
Created By : National TAB **Assigned To :** National TAB - Zack Eismin
Status : Open
Priority : High **Asset Tag :**
Originated Date : 04/24/2025 - Zack Eismin - National TAB

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Project: 8589 Hesperian & S St (Hayward CA)

System/Unit: AHU/RTU



Asset: RTU-1

AREA:

Unit Data		
	Design	Actual
MFG	EXISTING	CARRIER
Serial Num	-	2821C56577
Model Num	EXISTING	48FCL04A2A5A0A0C0
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28X14
Num PreFilter 1	-	2
PreFilter Size 1	-	16X25X2

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	1
Rated Voltage	208	208
Rated Amperage	-	5.1
Service Factor	-	NL

Test Data		
	Design	Actual
SF CFM	1200	1144
SF RPM	-	1447
RA CFM	1115	1063
OA CFM	85	81
RL Voltage	208	213
RL Amperage	-	2.71
VFD Max SetPt	-	N/A
VFD Min SetPt	-	N/A
SF Motor Freq(HZ)	-	N/A
OA Damper Position	-	~5% OPEN
Brake Horse Power	-	NA

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.24"
Fan Suction SP	-	-0.33"
Fan Discharge SP	-	0.20"
Total ESP	0.50	0.44"
Fan Total SP	-	0.53"
Cooling Coil P.D.	-	N/A

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Unit Data - PHOTO LOG



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Project: 8589 Hesperian & S St (Hayward CA)

AHU/RTU



Diffuser Supply (GRD)

RTU-1/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1		A	8	150	266	153	102.0
SGRD2		A	8	200	221	183	91.5
SGRD3		A	10	350	392	323	92.3
SGRD4		A	10	350	460	340	97.1
SGRD5		B	8	150	350	145	96.7
Total				1200	1689	1144	95.33%

Diffuser Ret/Exh (GRD)

RTU-1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1		D	6X6	150	1	152	152	152	101.3
EGRD2		D	16X16	965	1	959	911	911	94.4
Total				1115		1111	1063	1063	95.34%

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Project: 8589 Hesperian & S St (Hayward CA)

System/Unit: AHU/RTU



Asset: RTU-2

AREA:

Unit Data		
	Design	Actual
MFG	EXISTING	CARRIER
Serial Num	-	2821C56576
Model Num	EXISTING	48FCLA04A2A50A0C0
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28X14
Num PreFilter 1	-	2
PreFilter Size 1	-	16X25X2

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	1
Rated Voltage	208	208
Rated Amperage	-	5.1
Service Factor	-	NL

Test Data		
	Design	Actual
SF CFM	1200	1159
SF RPM	-	1456
RA CFM	990	952
OA CFM	210	207
RL Voltage	208	213
RL Amperage	-	2.36
VFD Max SetPt	-	N/A
VFD Min SetPt	-	N/A
SF Motor Freq(HZ)	-	N/A
OA Damper Position	-	~18%
Brake Horse Power	-	NA

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.32"
Fan Suction SP	-	-0.38"
Fan Discharge SP	-	0.19"
Total ESP	0.50	0.51"
Fan Total SP	-	0.57"
Cooling Coil P.D.	-	N/A

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Unit Data - PHOTO LOG



04/23/2025

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Project:8589 Hesperian & S St (Hayward CA)

AHU/RTU



Diffuser Supply (GRD)

RTU-2/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1		E	12X8	150	211	154	102.7
SGRD2		E	12X8	150	191	142	94.7
SGRD3		E	12X8	150	122	153	102.0
SGRD4		E	12X8	150	131	139	92.7
SGRD5		E	12X8	150	177	137	91.3
SGRD6		E	12X8	150	121	142	94.7
SGRD7		E	12X8	150	111	151	100.7
SGRD8		E	12X8	150	77	141	94.0
Total				1200	1141	1159	96.58%

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Project: 8589 Hesperian & S St (Hayward CA)

System/Unit: AHU/RTU



Asset: RTU-3

AREA:

Unit Data		
	Design	Actual
MFG	EXISTING	CARRIER
Serial Num	-	2821C56581
Model Num	EXISTING	48FCLA05A2A5A0A0C
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28X14
Num PreFilter 1	-	2
PreFilter Size 1	-	16X25X2

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	1
Rated Voltage	208	208
Rated Amperage	-	7.1
Service Factor	-	NL

Test Data		
	Design	Actual
SF CFM	1200	1212
SF RPM	-	1478
RA CFM	990	1001
OA CFM	210	211
RL Voltage	208	213
RL Amperage	-	3.01
VFD Max SetPt	-	N/A
VFD Min SetPt	-	N/A
SF Motor Freq(HZ)	-	N/A
OA Damper Position	-	~18% OPEN
Brake Horse Power	-	NA

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.29"
Fan Suction SP	-	-0.39"
Fan Discharge SP	-	0.21"
Total ESP	0.50	0.50"
Fan Total SP	-	0.60"
Cooling Coil P.D.	-	N/A

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Unit Data - PHOTO LOG



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Project:8589 Hesperian & S St (Hayward CA)

AHU/RTU



Diffuser Supply (GRD)

RTU-3/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1		E	12X8	150	159	157	104.7
SGRD2		E	12X8	150	162	140	93.3
SGRD3		E	12X8	150	169	153	102.0
SGRD4		E	12X8	150	133	161	107.3
SGRD5		E	12X8	150	177	137	91.3
SGRD6		E	12X8	150	131	144	96.0
SGRD7		E	12X8	150	141	163	108.7
SGRD8		E	12X8	150	150	157	104.7
Total				1200	1222	1212	101%

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Project: 8589 Hesperian & S St (Hayward CA)

System/Unit: FAN - Exhaust



Asset: EF1

AREA:RR

Unit Data		
	Design	Actual
MFG	NA	BROAN
Model Num	NA	QTXE110150DCL-A
Serial Num	-	NL
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	110	109
RL Voltage	208	NA
RL Amperage	-	NA
Discharge ESP	-	0.12"
Total ESP	0.1	0.12"

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	1
Voltage (rated)	208	120
Amperage (rated)	-	0.5
Service Factor	-	NL

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Unit Data - PHOTO LOG



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Project: 8589 Hesperian & S St (Hayward CA)

System/Unit: FAN - Exhaust



Asset: EF2

AREA:RR

Unit Data		
	Design	Actual
MFG	NA	BROAN
Model Num	NA	QTXE110150DCL-A
Serial Num	-	NL
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	110	111
RL Voltage	208	NA
RL Amperage	-	NA
Discharge ESP	-	0.13"
Total ESP	0.1	0.13"

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	1
Voltage (rated)	208	120
Amperage (rated)	-	0.5
Service Factor	-	NL

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Unit Data - PHOTO LOG



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