



Load Short Form
Entire House
Bounds Heating and Air

Job:
 Date: Jan 05, 2026
 By:

Email: jlegler@boundshvac.com

Project Information

For: Milliken, Amira Builders

Design Information

	Htg	Clg	Method	Infiltration	Simplified Average
Outside db (°F)	33	92	Method		0
Inside db (°F)	70	75	Construction quality		
Design TD (°F)	37	17	Fireplaces		
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	10	44			

HEATING EQUIPMENT

Make	Carrier
Trade	15 SEER2 HP
Model	GH5SAN54200AA0
AHRI ref	214101864
Efficiency	7.5 HSPF2
Heating input	
Heating output	39500 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	1367 cfm
Air flow factor	0.034 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 34 °F	

COOLING EQUIPMENT

Make	Carrier
Trade	15 SEER2 HP
Cond	GH5SAN54200AA0
Coil	FJ5ANXC42L10
AHRI ref	214101864
Efficiency	12.0 EER2, 14.5 SEER2
Sensible cooling	28700 Btuh
Latent cooling	12300 Btuh
Total cooling	41000 Btuh
Actual air flow	1367 cfm
Air flow factor	0.044 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.87

Backup:
 Input = 10 kW, Output = 34597 Btuh, 100 AFUE

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
powder	33	2759	1634	93	72
bedroom 3	152	3681	2990	124	132
bath 2	48	912	692	31	31
hall 1	49	0	0	0	0
bedroom 2	159	3749	2501	126	110
study	132	2400	1675	81	74
great room	361	4924	5393	166	238
foyer	82	1388	871	47	38
dining	132	3259	1872	110	83
pantry	42	384	212	13	9
kitchen	261	4012	4120	135	182
hall 2	72	0	0	0	0
1/2	28	1008	418	34	18
laundry	118	2748	1953	93	86

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



master suite	275	4931	3869	166	171
wic a	44	817	440	28	19
wic b	46	69	157	2	7
wc	29	622	695	21	31
master bath	105	2838	1457	96	64
Entire House	2168	40500	30949	1367	1367
Other equip loads		0	0		
Equip. @ 0.97 RSM			30082		
Latent cooling			4655		
TOTALS	2168	40500	34737	1367	1367

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Project Summary
 Entire House
 Bounds Heating and Air

Job:
 Date: Jan 05, 2026
 By:

Email: jlegler@boundshvac.com

Project Information

For: Milliken, Amira Builders

Notes:

Design Information

Weather: Gainesville Regional, FL, US

Winter Design Conditions

Outside db 33 °F
 Inside db 70 °F
 Design TD 37 °F

Ventilation Method MJ8

Heating Summary

Structure 32212 Btuh
 Ducts (R-6.0) 8288 Btuh
 Central vent (0 cfm) 0 Btuh
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 40500 Btuh

Infiltration

Method Simplified
 Construction quality Average
 Fireplaces 0

	Heating	Cooling
Area (ft ²)	2167	2167
Volume (ft ³)	23121	23121
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	123	62

Heating Equipment Summary

Make Carrier
 Trade 15 SEER2 HP
 Model GH5SAN54200AA0
 AHRI ref 214101864
 Efficiency 7.5 HSPF2
 Heating input
 Heating output 39500 Btuh @ 47°F
 Temperature rise 26 °F
 Actual air flow 1367 cfm
 Air flow factor 0.034 cfm/Btuh
 Static pressure 0.50 in H2O
 Space thermostat
 Capacity balance point = 34 °F

Backup:
 Input = 10 kW, Output = 34597 Btuh, 100 AFUE

Bold/italic values have been manually overridden

Summer Design Conditions

Outside db 92 °F
 Inside db 75 °F
 Design TD 17 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 44 gr/lb

Sensible Cooling Equipment Load Sizing

Structure 20787 Btuh
 Ducts (R-6.0) 10162 Btuh
 Central vent (0 cfm) 0 Btuh
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.97
 Equipment sensible load 30082 Btuh

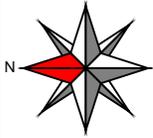
Latent Cooling Equipment Load Sizing

Structure 2628 Btuh
 Ducts 2027 Btuh
 Central vent (0 cfm) 0 Btuh
 Equipment latent load 4655 Btuh
Equipment Total Load (Sen+Lat) 34737 Btuh
 Req. total capacity at 0.70 SHR 3.6 ton

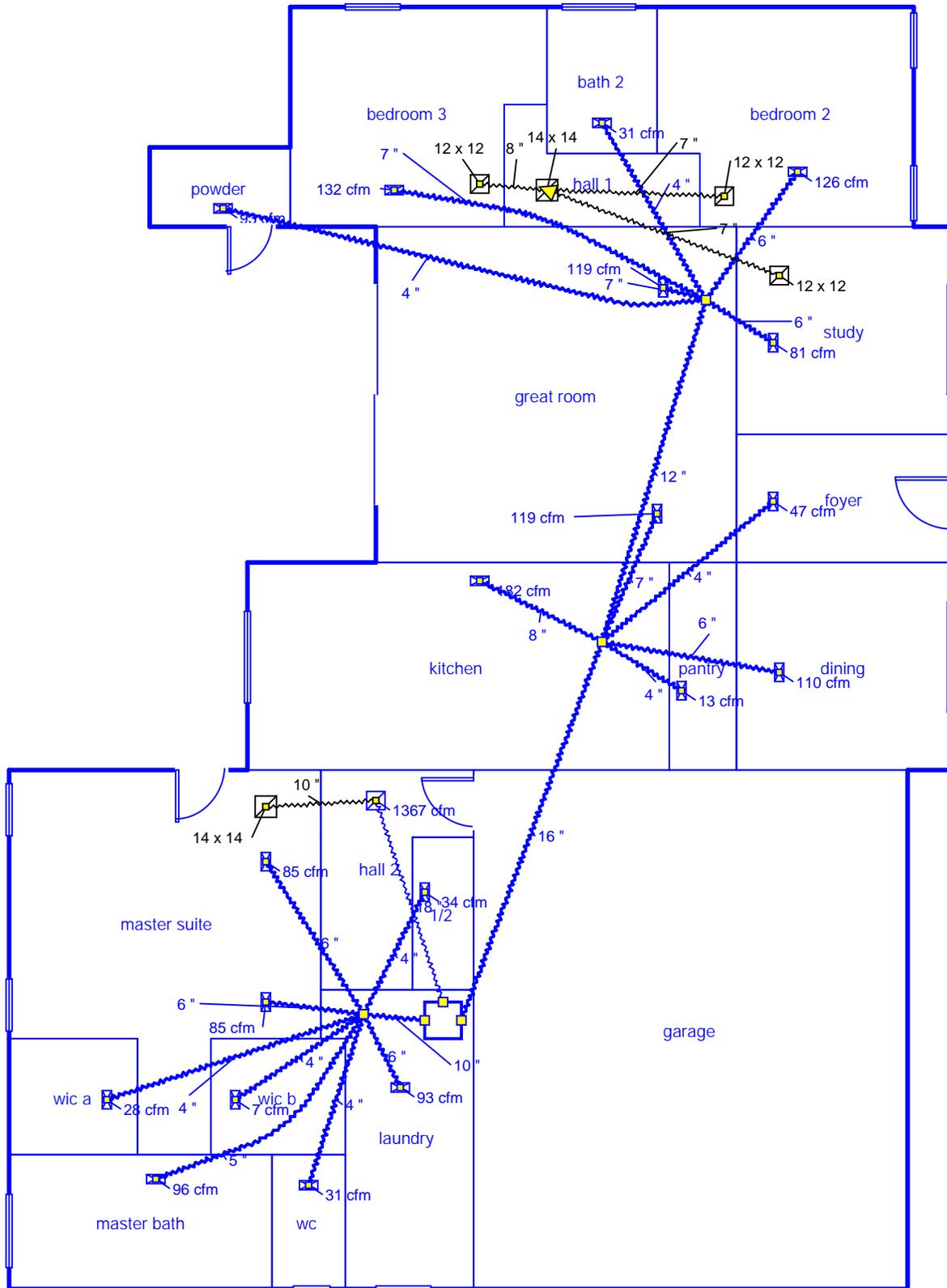
Cooling Equipment Summary

Make Carrier
 Trade 15 SEER2 HP
 Cond GH5SAN54200AA0
 Coil FJ5ANXC42L10
 AHRI ref 214101864
 Efficiency 12.0 EER2, 14.5 SEER2
 Sensible cooling 28700 Btuh
 Latent cooling 12300 Btuh
 Total cooling 41000 Btuh
 Actual air flow 1367 cfm
 Air flow factor 0.044 cfm/Btuh
 Static pressure 0.50 in H2O
 Load sensible heat ratio 0.87

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Sheet 1



Job #:
Performed for:
Milliken

Bounds Heating and Air

jlegler@boundshvac.com

Scale: 1 : 101

Page 1
Right-Suite@Universal 2025
25.0.04 RSU57217
2026-Jan-06 06:31:15
...026)\Amira\Milliken\Milliken.rup



Manual S Compliance Report
Entire House
Bounds Heating and Air

Job:
 Date: Jan 05, 2026
 By:

Email: jlegler@boundshvac.com

Project Information

For: Milliken, Amira Builders

Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	30949 Btuh	Entering coil DB:	77.1°F
Outdoor design WB:	75.8°F	Latent gain:	4655 Btuh	Entering coil WB:	63.5°F
Indoor design DB:	75.0°F	Total gain:	35604 Btuh		
Indoor RH:	50%	Estimated airflow:	1367 cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP			
Manufacturer:	Carrier	Model:	GH5SAN54200AA0+FJ5ANXC42L10	
Actual airflow:	1367 cfm			
Sensible capacity:	28700 Btuh		93% of load	
Latent capacity:	12300 Btuh		264% of load	
Total capacity:	41000 Btuh		115% of load	SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	40500 Btuh	Entering coil DB:	68.9°F
Indoor design DB:	70.0°F				

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP			
Manufacturer:	Carrier	Model:	GH5SAN54200AA0+FJ5ANXC42L10	
Actual airflow:	1367 cfm			
Output capacity:	39500 Btuh		98% of load	Capacity balance: 34 °F
Supplemental heat required:	1000 Btuh			Economic balance: -99 °F

Backup equipment type:	Elec strip			
Manufacturer:		Model:		
Actual airflow:	1367 cfm			
Output capacity:	10.1 kW	85% of load	Temp. rise:	50 °F

Meets all requirements of ACCA Manual S.



Duct System Summary

Entire House
Bounds Heating and Air

Job:
Date: Jan 05, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: Milliken, Amira Builders

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.50 in H2O	0.50 in H2O
Supply / return available pressure	0.359 / 0.141 in H2O	0.359 / 0.141 in H2O
Lowest friction rate	0.172 in/100ft	0.172 in/100ft
Actual air flow	1367 cfm	1367 cfm
Total effective length (TEL)		290 ft

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
1/2	h 1008	34	18	0.286	4.0	0x0	VIFx	10.8	115.0	st2
bath 2	h 912	31	31	0.191	4.0	0x0	VIFx	52.8	135.0	st3
bedroom 2	h 3749	126	110	0.194	6.0	0x0	VIFx	50.2	135.0	st3
bedroom 3	c 2990	124	132	0.180	7.0	0x0	VIFx	59.8	140.0	st3
dining	h 3259	110	83	0.245	6.0	0x0	VIFx	31.9	115.0	st1
foyer	h 1388	47	38	0.241	4.0	0x0	VIFx	34.1	115.0	st1
great room	c 2696	83	119	0.248	7.0	0x0	VIFx	29.7	115.0	st1
great room-A	c 2696	83	119	0.201	7.0	0x0	VIFx	44.0	135.0	st3
kitchen	c 4120	135	182	0.249	8.0	0x0	VIFx	29.5	115.0	st1
laundry	h 2748	93	86	0.293	6.0	0x0	VIFx	7.8	115.0	st2
master bath	h 2838	96	64	0.259	5.0	0x0	VIFx	18.6	120.0	st2
master suite	c 1934	83	85	0.280	6.0	0x0	VIFx	13.2	115.0	st2
master suite-A	c 1934	83	85	0.290	6.0	0x0	VIFx	8.7	115.0	st2
pantry	h 384	13	9	0.253	4.0	0x0	VIFx	27.1	115.0	st1
powder	h 2759	93	72	0.172	4.0	0x0	VIFx	68.5	140.0	st3
study	h 2400	81	74	0.199	6.0	0x0	VIFx	45.9	135.0	st3
wc	c 695	21	31	0.280	4.0	0x0	VIFx	13.2	115.0	st2
wic a	h 817	28	19	0.270	4.0	0x0	VIFx	18.1	115.0	st2
wic b	c 157	2	7	0.284	4.0	0x0	VIFx	11.8	115.0	st2

Bold/italic values have been manually overridden



Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st3	Peak AVF	539	538	0.172	686	12.0	0 x 0	VinIFlx	st1
st1	Peak AVF	927	970	0.172	695	16.0	0 x 0	VinIFlx	
st2	Peak AVF	440	397	0.259	806	10.0	0 x 0	VinIFlx	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb1	0x0	1367	1367	81.6	0.172	694	19.0	0x 0		VIFx	rst4

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rst4	Peak AVF	1367	1367	0.172	773	18.0	0 x 0	VinIFlx	

Bold/italic values have been manually overridden

