Project Summary
Entire House
Bounds Heating and Air

Job:
Date: Oct 06, 2025
By:

Email: jlegler@boundshvac.com

Project Information

For: Curasco, Amira Builders

Notes:

Design Information

Weather: Gainesville Regional, FL, US

Winter Design Conditions

Outside db	33	°F
Inside db	68	°F
Design TD	35	°F
Ventilation Method	MJ8	

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

Heating Summary

Structure	34685	Btuh
Ducts (R-6.0)	10269	Btuh
Central vent (0 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	44954	Btuh

Sensible Cooling Equipment Load Sizing

Structure	21977	Btuh
Ducts (R-6.0)	12750	Btuh
Central vent (0 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	33755	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft²)	*2465*	*2465*
Volume (ft³)	25289	25289
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	135	67

Latent Cooling Equipment Load Sizing

Structure	2800	Btuh
Ducts	2565	Btuh
Central vent (0 cfm)	0	Btuh
Equipment latent load	5364	Btuh
Equipment Total Load (Sen+Lat)	39120	Btuh
Req. total capacity at 0.70 SHR	4.0	ton

Heating Equipment Summary

Make	Carrier
Trade	15 SEER2 HP
Model	GH5SAN54800AA0
AHRI ref	214101900

Efficiency	7.5 HSPF2	
Heating input		
Heating output	47500	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	1567	cfm
Air flow factor	0.035	cfm/Btuh
Static pressure	0.50	in H2O

Space thermostat
Capacity balance point = 32 °F

Backup: n/a n/a
Input = 0 kW, Output = 0 Btuh, 100 AFUE

Cooling Equipment Summary

Make	Carrier
Trade	15 SEER2 HP
Cond	GH5SAN54800AA0
Coil	FJ5ANXC48L00
AHRI ref	214101900

Efficiency	12.0 EER2, 15 SEER2	
Sensible cooling	32900	Btuh
Latent cooling	14100	Btuh
Total cooling	47000	Btuh
Actual air flow	1567	cfm
Air flow factor	0.045	cfm/Btuh
Static pressure	0.50	in H2O
Load sensible heat ratio	0.87	

Bold/italic values have been manually overridden

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

Load Short Form
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Design Information

	Htg	Clg
Outside db (°F)	33	92
Inside db (°F)	68	75
Design TD (°F)	35	17
Daily range	-	M
Inside humidity (%)	50	50
Moisture difference (gr/lb)	29	44

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

HEATING EQUIPMENT

Make Carrier
Trade 15 SEER2 HP
Model GH5SAN54800AA0
AHRI ref 214101900

Efficiency	7.5 HSPF2	
Heating input		
Heating output	47500	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	1567	cfm
Air flow factor	0.035	cfm/Btuh
Static pressure	0.50	in H2O
Space thermostat		

Capacity balance point = 32 °F

Backup: n/a n/a
Input = 0 kW, Output = 0 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Carrier
Trade 15 SEER2 HP
Cond GH5SAN54800AA0
Coil FJ5ANXC48L00
AHRI ref 214101900

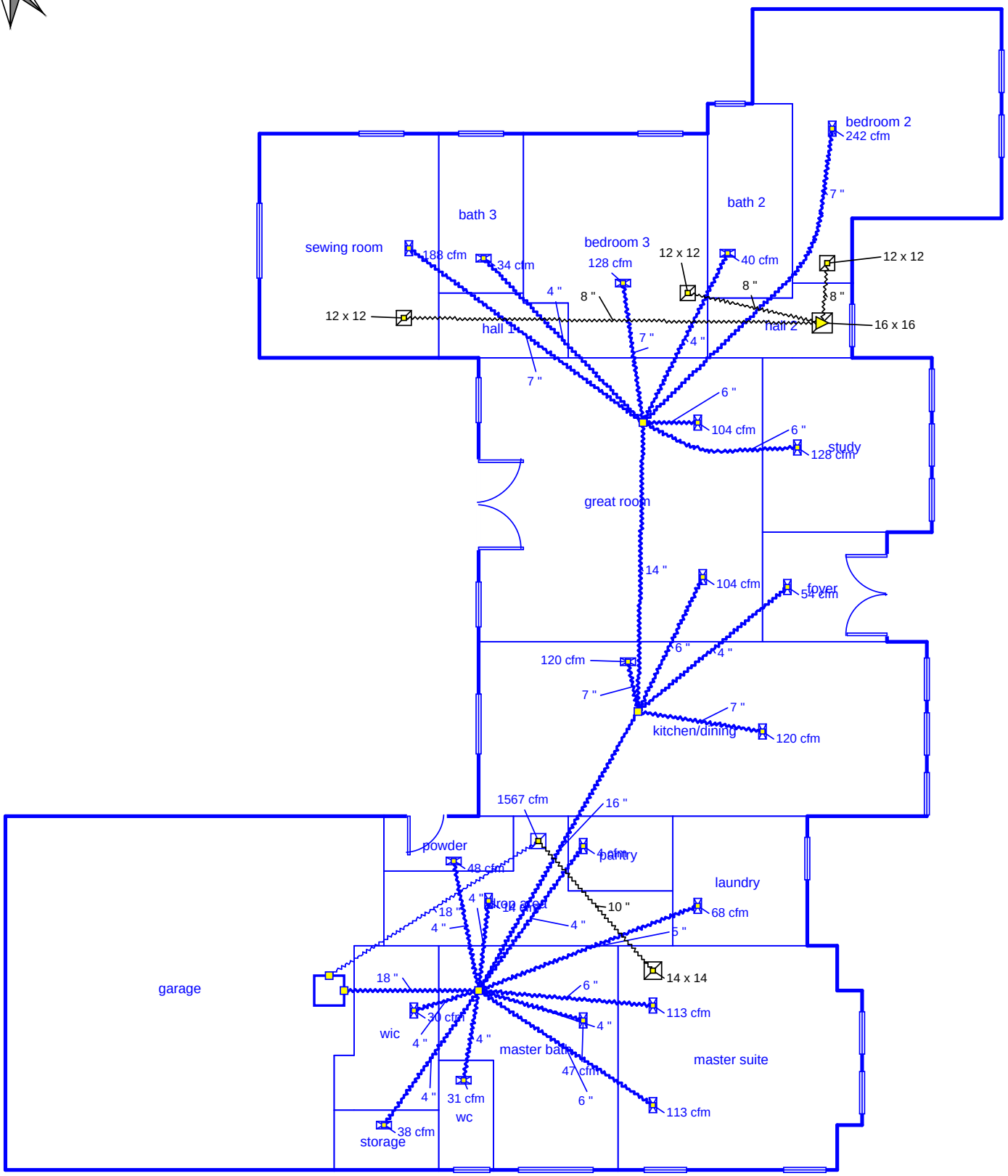
Efficiency	12.0 EER2, 15 SEER2	
Sensible cooling	32900	Btuh
Latent cooling	14100	Btuh
Total cooling	47000	Btuh
Actual air flow	1567	cfm
Air flow factor	0.045	cfm/Btuh
Static pressure	0.50	in H2O
Load sensible heat ratio	0.87	

ROOM NAME	Area (ft^2)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
sewing room	180	5397	3571	188	161
bath 3	60	930	753	32	34
bedroom 3	174	2292	2832	80	128
hall 1	36	0	0	0	0
bath 2	74	1026	884	36	40
bedroom 2	230	6940	3570	242	161
hall 2	43	0	0	0	0
study	132	3667	2256	128	102
great room	361	4738	4629	165	209
foyer	61	1542	794	54	36
kitchen/dining	350	5682	5337	198	241
powder	32	1364	985	48	44
drop area	101	412	259	14	12
pantry	35	51	90	2	4

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

laundry	78	1334	1518	46	68
wic	67	860	172	30	8
storage	28	1083	358	38	16
wc	27	639	688	22	31
master bath	153	1346	1017	47	46
master suite	235	5651	5015	197	226
Entire House	2457	44954	34728	1567	1567
Other equip loads		0	0		
Equip. @ 0.97 RSM			33755		
Latent cooling			5364		
TOTALS	2457	44954	39120	1567	1567

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



Job #: **Performed for:** Curasco	**Bounds Heating and Air** jlegler@boundshvac.com	Scale: 1 : 112 Page 1 Right-Suite® Universal 2025 25.0.01 RSU57217 2025-Oct-07 06:56:16 ...(2025)\Amira\Curasco\Curasco.rup

Manual S Compliance Report

Entire House

Bounds Heating and Air

Job:
Date: Oct 06, 2025
By:

Email: jlegler@boundshvac.com

Project Information

For: Curasco, Amira Builders

Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	34728	Btuh	Entering coil DB:	77.4°F
Outdoor design WB:	75.8°F	Latent gain:	5364	Btuh	Entering coil WB:	63.7°F
Indoor design DB:	75.0°F	Total gain:	40092	Btuh		
Indoor RH:	50%	Estimated airflow:	1567	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Carrier		Model:	GH5SAN54800AA0+FJ5ANXC48L00	
Actual airflow:	1567	cfm			
Sensible capacity:	32900	Btuh	95% of load		
Latent capacity:	14100	Btuh	263% of load		
Total capacity:	47000	Btuh	117% of load	SHR:	70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	44954	Btuh	Entering coil DB:	66.9°F
Indoor design DB:	68.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP						
Manufacturer:	Carrier		Model:	GH5SAN54800AA0+FJ5ANXC48L00			
Actual airflow:	1567	cfm					
Output capacity:	47500	Btuh	106% of load		Capacity balance:	32	°F
Supplemental heat required:	0	Btuh			Economic balance:	-99	°F

Backup equipment type:	Elec strip						
Manufacturer:	n/a		Model:	n/a+n/a			
Actual airflow:	1567	cfm					
Output capacity:	0	kW	0% of load	Temp. rise:	0	°F	

Meets all requirements of ACCA Manual S.

Duct System Summary

Entire House

Bounds Heating and Air

Job:
Date: Oct 06, 2025
By:

Email: jlegler@boundshvac.com

Project Information

For: Curasco, 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	0.394 / 0.106 in H2O	0.394 / 0.106 in H2O
Lowest friction rate	0.188 in/100ft	0.188 in/100ft
Actual air flow	1567 cfm	1567 cfm
Total effective length (TEL)	266 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
bath 2	c	884	36	40	0.204	*4.0*	*0x 0*	VlFx	62.5	130.0	st3
bath 3	c	753	32	34	0.202	*4.0*	*0x 0*	VlFx	65.2	130.0	st3
bedroom 2	h	6940	242	161	0.188	*7.0*	*0x 0*	VlFx	74.4	135.0	st3
bedroom 3	c	2832	80	128	0.208	*7.0*	*0x 0*	VlFx	59.3	130.0	st3
drop area	h	412	14	12	0.375	*4.0*	*0x 0*	VlFx	15.0	90.0	st1
foyer	h	1542	54	36	0.256	*4.0*	*0x 0*	VlFx	43.5	110.0	st2
great room	c	2314	83	104	0.262	*6.0*	*0x 0*	VlFx	40.5	110.0	st2
great room-A	c	2314	83	104	0.214	*6.0*	*0x 0*	VlFx	53.5	130.0	st3
kitchen/dining	c	2669	99	120	0.273	*7.0*	*0x 0*	VlFx	33.9	110.0	st2
kitchen/dining-A	c	2668	99	120	0.264	*7.0*	*0x 0*	VlFx	38.9	110.0	st2
laundry	c	1518	46	68	0.343	*5.0*	*0x 0*	VlFx	24.7	90.0	st1
master bath	h	1346	47	46	0.370	*4.0*	*0x 0*	VlFx	16.3	90.0	st1
master suite	c	2507	99	113	0.355	*6.0*	*0x 0*	VlFx	20.7	90.0	st1
master suite-A	c	2507	98	113	0.348	*6.0*	*0x 0*	VlFx	23.0	90.0	st1
pantry	c	90	2	4	0.355	*4.0*	*0x 0*	VlFx	20.9	90.0	st1
powder	h	1364	48	44	0.365	*4.0*	*0x 0*	VlFx	17.8	90.0	st1
sewing room	h	5397	188	161	0.197	*7.0*	*0x 0*	VlFx	69.4	130.0	st3
storage	h	1083	38	16	0.358	*4.0*	*0x 0*	VlFx	20.0	90.0	st1
study	h	3667	128	102	0.201	*6.0*	*0x 0*	VlFx	60.7	135.0	st3
wc	c	688	22	31	0.375	*4.0*	*0x 0*	VlFx	15.1	90.0	st1
wic	h	860	30	8	0.380	*4.0*	*0x 0*	VlFx	13.5	90.0	st1

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	789	730	0.188	738	*14.0*	*0* x *0*	VinlFlx	st2
st2	Peak AVF	1123	1111	0.188	804	*16.0*	*0* x *0*	VinlFlx	st1
st1	Peak AVF	1567	1567	0.188	887	*18.0*	*0* x *0*	VinlFlx	

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	0x 0	1567	1567	56.6	0.188	594	22.0	0x 0		VlFx	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	1567	1567	0.188	887	*18.0*	*0* x *0*	VinlFlx	

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