



Load Short Form

Entire House

Bounds Heating and Air

Job:
Date: Aug 20, 2020
By:

Project Information

For: Rowley, Lerner

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	68	75	Construction quality	Semi-tight
Design TD (°F)	35	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	29	47		

HEATING EQUIPMENT

Make Carrier
Trade CARRIER
Model CH14NB03000G0A0
AHRI ref 9162305

Efficiency 8.2 HSPF
Heating input
Heating output 28600 Btuh @ 47°F
Temperature rise 27 °F
Actual air flow 953 cfm
Air flow factor 0.047 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 26 °F

Backup:

Input = 0 kW, Output = 0 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Carrier
Trade CARRIER
Cond CH14NB03000G0A0
Coil FB4CNP030L
AHRI ref 9162305

Efficiency 11.5 EER, 14 SEER
Sensible cooling 20020 Btuh
Latent cooling 8580 Btuh
Total cooling 28600 Btuh
Actual air flow 953 cfm
Air flow factor 0.054 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.85

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
laundry	46	1874	1543	87	84
master suite	164	2181	3589	102	195
wic a	28	41	70	2	4
master bath	163	2043	1464	95	80
steven's	80	2794	1645	130	89
kitchen/living	789	10024	8686	467	472
wic	36	1484	542	69	29

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



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Entire House	d	1306	20441	17540	953	953
Other equip loads			0	0		
Equip. @ 0.97 RSM				17013		
Latent cooling				3137		
TOTALS		1306	20441	20151	953	953

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Project Summary

Entire House

Bounds Heating and Air

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Notes:

Design Information

Weather: Gainesville Regional AP, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	68 °F
Design TD	35 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	47 gr/lb

Heating Summary

Structure	15709 Btuh
Ducts	4731 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	20441 Btuh

Sensible Cooling Equipment Load Sizing

Structure	11720 Btuh
Ducts	5819 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	17013 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	1918 Btuh
Ducts	1219 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Equipment latent load	3137 Btuh

	Heating	Cooling
Area (ft ²)	1306	1306
Volume (ft ³)	11754	11754
Air changes/hour	0.39	0.21
Equiv. AVF (cfm)	76	41

Equipment Total Load (Sen+Lat)	20151 Btuh
Req. total capacity at 0.70 SHR	2.0 ton

Heating Equipment Summary

Make	Carrier
Trade	CARRIER
Model	CH14NB03000G0A0
AHRI ref	9162305

Efficiency	8.2 HSPF
Heating input	
Heating output	28600 Btuh @ 47°F
Temperature rise	27 °F
Actual air flow	953 cfm
Air flow factor	0.047 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 26 °F	

Backup:
Input = 0 kW, Output = 0 Btuh, 100 AFUE

Cooling Equipment Summary

Make	Carrier
Trade	CARRIER
Cond	CH14NB03000G0A0
Coil	FB4CNP030L
AHRI ref	9162305
Efficiency	11.5 EER, 14 SEER
Sensible cooling	20020 Btuh
Latent cooling	8580 Btuh
Total cooling	28600 Btuh
Actual air flow	953 cfm
Air flow factor	0.054 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.85

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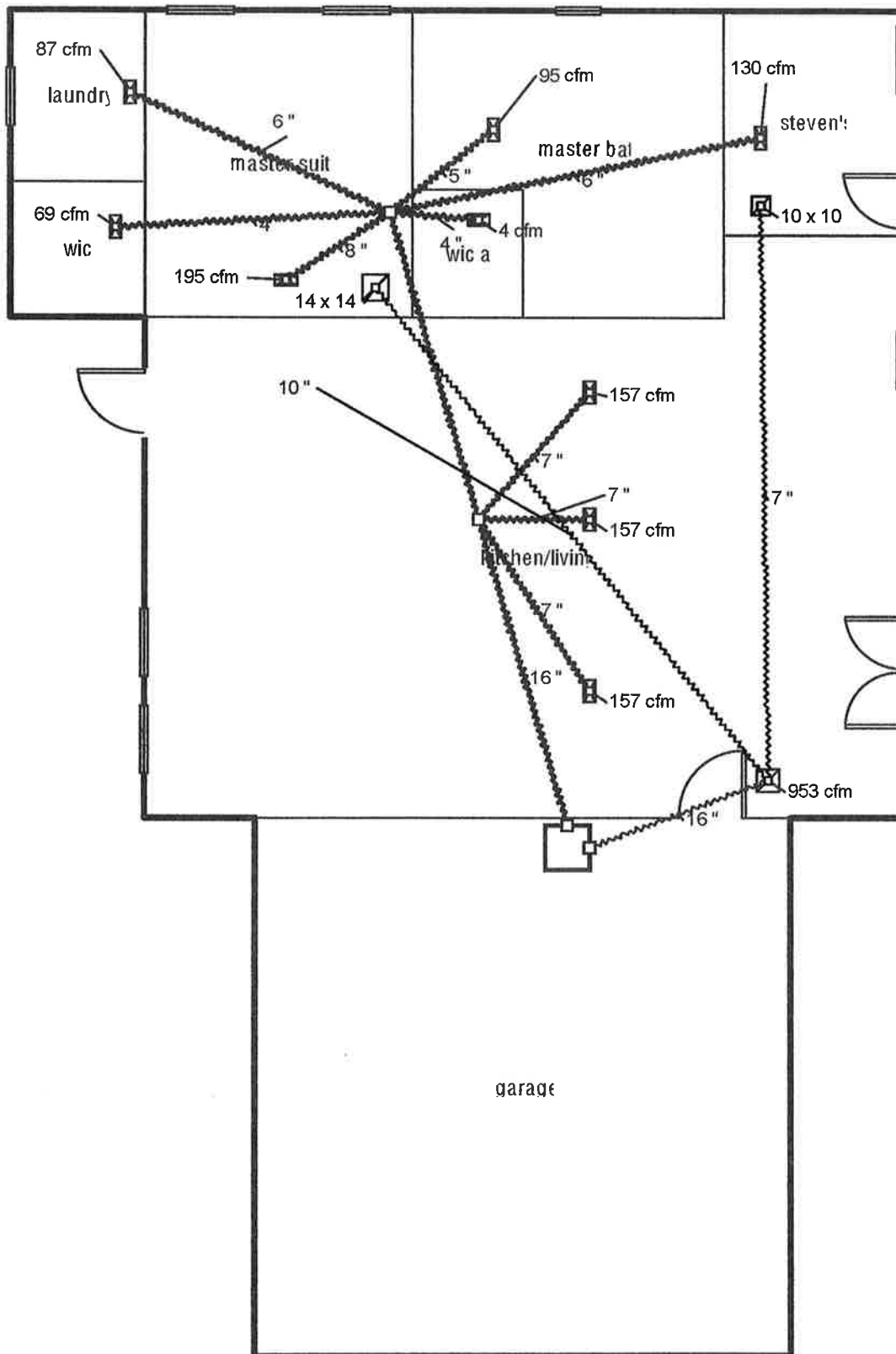
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Main floor



Job #:
Performed for:
Rowley

Bounds Heating and Air

Scale: 1 : 87

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Duct System Summary

Entire House

Bounds Heating and Air

Job:
Date: Aug 20, 2020
By:

Project Information

For: Rowley, Lerner

	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	0.422 / 0.078 in H2O	0.422 / 0.078 in H2O
Lowest friction rate	0.272 in/100ft	0.272 in/100ft
Actual air flow	953 cfm	953 cfm
Total effective length (TEL)	184 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
kitchen/living	c 2895	156	157	0.373	7.0	0x 0	VIFx	23.4	90.0	st1
kitchen/living-A	c 2895	156	157	0.387	7.0	0x 0	VIFx	19.2	90.0	st1
kitchen/living-B	c 2895	156	157	0.378	7.0	0x 0	VIFx	21.8	90.0	st1
laundry	h 1874	87	84	0.279	6.0	0x 0	VIFx	41.3	110.0	st1
master bath	h 2043	95	80	0.293	5.0	0x 0	VIFx	34.4	110.0	st1
master suite	c 3589	102	195	0.293	8.0	0x 0	VIFx	34.0	110.0	st1
steven's	h 2794	130	89	0.272	6.0	0x 0	VIFx	45.5	110.0	st1
wic	h 1484	69	29	0.280	4.0	0x 0	VIFx	40.8	110.0	st1
wic a	c 70	2	4	0.296	4.0	0x 0	VIFx	32.5	110.0	st1

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	953	953	0.272	683	16.0	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
rb2	0x 0	953	953	28.5	0.272	539	18.0	0x 0		VIFx	rst2

Bold/italic values have been manually overridden

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rst2	Peak AVF	953	953	0.272	683	<i>16.0</i>	<i>0 x 0</i>	VinlFix	

Bold/italic values have been manually overridden



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