



Manual S Compliance Report

Entire House

Bounds Heating & Air

Job: Damico
Date: May 06, 2022
By: Hailey Vradenburgh

Email: jlegler@boundshvac.com

Project Information

For: Damico, R&M Construction

Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	18630	Btuh	Entering coil DB:	76.6°F
Outdoor design WB:	75.8°F	Latent gain:	2469	Btuh	Entering coil WB:	63.3°F
Indoor design DB:	75.0°F	Total gain:	21098	Btuh		
Indoor RH:	50%	Estimated airflow:	953	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	CH14NB030P00GA0+FB4CNF030L++TXV
Actual airflow:	953	cfm	
Sensible capacity:	20020	Btuh	107% of load
Latent capacity:	8580	Btuh	348% of load
Total capacity:	28600	Btuh	136% of load SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	21252	Btuh	Entering coil DB:	67.3°F
Indoor design DB:	68.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	CH14NB030P00GA0+FB4CNF030L++TXV
Actual airflow:	953	cfm	
Output capacity:	28600	Btuh	135% of load
Supplemental heat required:	0	Btuh	
Capacity balance:	27	°F	
Economic balance:	-99	°F	

Backup equipment type:	Elec strip		
Manufacturer:	n/a	Model:	n/a+n/a
Actual airflow:	953	cfm	
Output capacity:	0	kW	0% of load Temp. rise: 0 °F

Meets all requirements of ACCA Manual S.



Right-Suite® Universal 2021 21.0.08 RSU01870

...es\PDF plans & J&D (2022)\R&M\Damico\Damico.rup Calc = MJ8 Front Door faces: N

2022-May-31 09:37:05

Page 1



Load Short Form

Entire House

Bounds Heating & Air

Job: Damico
Date: May 06, 2022
By: Hailey Vradenburgh

Email: jlegler@boundshvac.com

Project Information

For: Damico, R&M Construction

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	33	92	Method	Average
Inside db (°F)	68	75	Construction quality	0
Design TD (°F)	35	17	Fireplaces	
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	29	44		

HEATING EQUIPMENT

Make Carrier
Trade CARRIER
Model CH14NB030P00GA0
AHRI ref 204861632

Efficiency 8.2 HSPF
Heating input
Heating output 28600 Btuh @ 47°F
Temperature rise 27 °F
Actual air flow 953 cfm
Air flow factor 0.045 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 27 °F

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

COOLING EQUIPMENT

Make Carrier
Trade CARRIER
Cond CH14NB030P00GA0
Coil FB4CNF030L++TXV
AHRI ref 204861632

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 0.051 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.88

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bath	68	2142	865	96	44
WIC	48	655	295	29	15
Laundry	66	900	1092	40	56
Bath 2	68	2142	865	96	44
Bed 2	140	2741	2487	123	127
Bed 1	140	2704	2308	121	118
Living Room	500	9969	10717	447	548

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



Right-Suite® Universal 2021 21.0.08 RSU01870

...es\PDF plans & J&D (2022)\R&M\Damico\Damico.rup Calc = MJ8 Front Door faces: N

2022-May-31 09:37:05

Page 1

Entire House	1030	21252	18630	953	953
Other equip loads		0	0		
Equip. @ 0.97 RSM			18108		
Latent cooling			2469		
TOTALS	1030	21252	20577	953	953

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





Project Summary

Entire House

Bounds Heating & Air

Job: Damico
Date: May 06, 2022
By: Hailey Vradenburgh

Email: jlegler@boundshvac.com

Project Information

For: Damico, R&M Construction

Notes:

Design Information

Weather: Gainesville Regional, 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	44 gr/lb

Heating Summary

Structure	17020 Btuh
Ducts	4232 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	21252 Btuh

Sensible Cooling Equipment Load Sizing

Structure	13411 Btuh
Ducts	5219 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	18108 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	1454 Btuh
Ducts	1015 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Equipment latent load	2469 Btuh

	Heating	Cooling
Area (ft ²)	1030	1030
Volume (ft ³)	9270	9270
Air changes/hour	0.45	0.23
Equiv. AVF (cfm)	70	36

Equipment Total Load (Sen+Lat)	20577 Btuh
Req. total capacity at 0.70 SHR	2.2 ton

Heating Equipment Summary

Make	Carrier
Trade	CARRIER
Model	CH14NB030P00GA0
AHRI ref	204861632
Efficiency	8.2 HSPF
Heating input	28600 Btuh @ 47°F
Heating output	27 °F
Temperature rise	953 cfm
Actual air flow	0.045 cfm/Btuh
Air flow factor	0.50 in H2O
Static pressure	
Space thermostat	
Capacity balance point = 27 °F	
Backup: n/a n/a	
Input = 0 kW, Output = 0 Btuh, 100 AFUE	

Cooling Equipment Summary

Make	Carrier
Trade	CARRIER
Cond	CH14NB030P00GA0
Coil	FB4CNF030L++TXV
AHRI ref	204861632
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	0.051 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.88

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



Right-Suite® Universal 2021 21.0.08 RSU01870

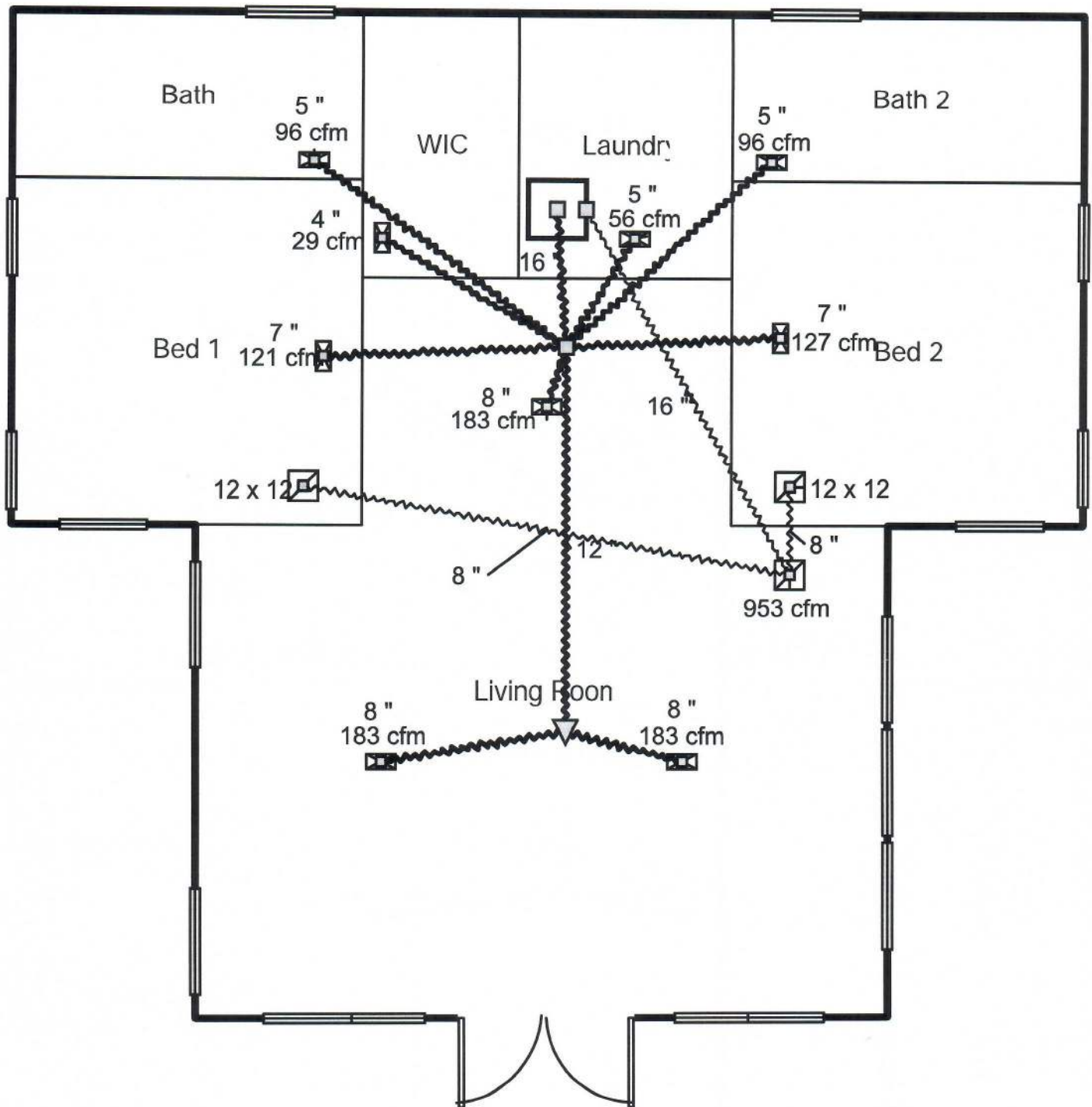
...es\PDF plans & J&D (2022)\R&M\Damico\Damico.rup Calc = MJ8 Front Door faces: N

2022-May-31 09:37:05

Page 1



Level 1



Job #: Damico
Performed by Hailey Vradenburgh for:
Damico

Bounds Heating & Air

jlegler@boundshvac.com

Scale: 1 : 61

Page 1

Right-Suite® Universal 2021

21.0.08 RSU01870

2022-May-31 09:37:35

...J&D (2022)\R&M\Damico\Damico.ru



Duct System Summary

Entire House

Bounds Heating & Air

Job: Damico
Date: May 06, 2022
By: Hailey Vradenburgh

Email: jlegler@boundshvac.com

Project Information

For: Damico, R&M Construction

	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	0.356 / 0.144 in H2O	0.356 / 0.144 in H2O
Lowest friction rate	0.266 in/100ft	0.266 in/100ft
Actual air flow	953 cfm	953 cfm
Total effective length (TEL)	188 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	h 2142	96	44	0.338	5.0	0x 0	VIFx	15.4	90.0	st1
Bath 2	h 2142	96	44	0.342	5.0	0x 0	VIFx	14.1	90.0	st1
Bed 1	h 2704	121	118	0.346	7.0	0x 0	VIFx	13.0	90.0	st1
Bed 2	c 2487	123	127	0.349	7.0	0x 0	VIFx	12.0	90.0	st1
Laundry	c 1092	40	56	0.360	5.0	0x 0	VIFx	9.0	90.0	st1
Living Room	c 3573	149	183	0.368	8.0	0x 0	VIFx	6.8	90.0	st1
Living Room-A	c 3572	149	183	0.266	8.0	0x 0	VIFx	24.1	110.0	st2
Living Room-B	c 3572	149	183	0.270	8.0	0x 0	VIFx	21.8	110.0	st2
WIC	h 655	29	15	0.349	4.0	0x 0	VIFx	12.0	90.0	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
st2	Peak AVF	298	366	0.266	465	12.0	0 x 0	VinIFlx	st1
st1	Peak AVF	953	953	0.266	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
rb1	0x 0	953	953	54.2	0.266	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	0.266	683	16.0	0 x 0	VinlFlx	

Bold/Italic values have been manually overriden

