



Job:
Date: Sep 17, 2013
By: R.Giro, PE

5208 SW 91 Way, Suite 110, Gainesville, FL 32608 Phone 352-339-3899 Fax: 352-371-7188 Email Rafael.giro@sustainabledesigngroup.com Web: www.sustainabledesigngroup.com

For: Hans Dindial Residence
Gainesville, FL

Notes:



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	48 gr/lb

Heating Summary

Structure	11254	Btuh
Ducts	3141	Btuh
Central vent (50 cfm)	1931	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	16326	Btuh

Sensible Cooling Equipment Load Sizing

Structure	12153	Btuh
Ducts	3820	Btuh
Central vent (50 cfm)	944	Btuh
Blower	0	Btuh

Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	16426 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	1702 Btuh
Ducts	635 Btuh
Central vent (50 cfm)	1653 Btuh
Equipment latent load	3991 Btuh

Equipment total load	20417 Btuh
Req. total capacity at 0.70 SHR	2.0 ton

	Heating	Cooling
Area (ft ²)	1600	1600
Volume (ft ³)	14400	14400
Air changes/hour	0.12	0.14
Equiv. AVF (cfm)	29	34

Heating Equipment Summary

Make	Goodman Mfg.
Trade	GOODMAN, JANITROL, AMANA DISTI...
Model	GSZ130241B*
AHRI ref	4689695

Efficiency	7.7 HSPF
Heating input	
Heating output	23000 Btuh @ 47°F
Temperature rise	27 °F
Actual air flow	787 cfm
Air flow factor	0.055 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Goodman Mfg
Trade	GOODMAN, JANITROL, AMANA DISTI...
Cond	GSZ130241B*
Coil	ACNFB30XX16D*
AHRI ref	4689695

Efficiency	11.0 EER, 13 SEER	
Sensible cooling	16520	Btuh
Latent cooling	7080	Btuh
Total cooling	23600	Btuh
Actual air flow	787	cfm
Air flow factor	0.049	cfm/Btuh
Static pressure	0.50	in H2O
Load sensible heat ratio	0.81	

Bold/Italic values have been manually overridden

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



Right-Suite® Universal 2013 13 0 01 RSU08058

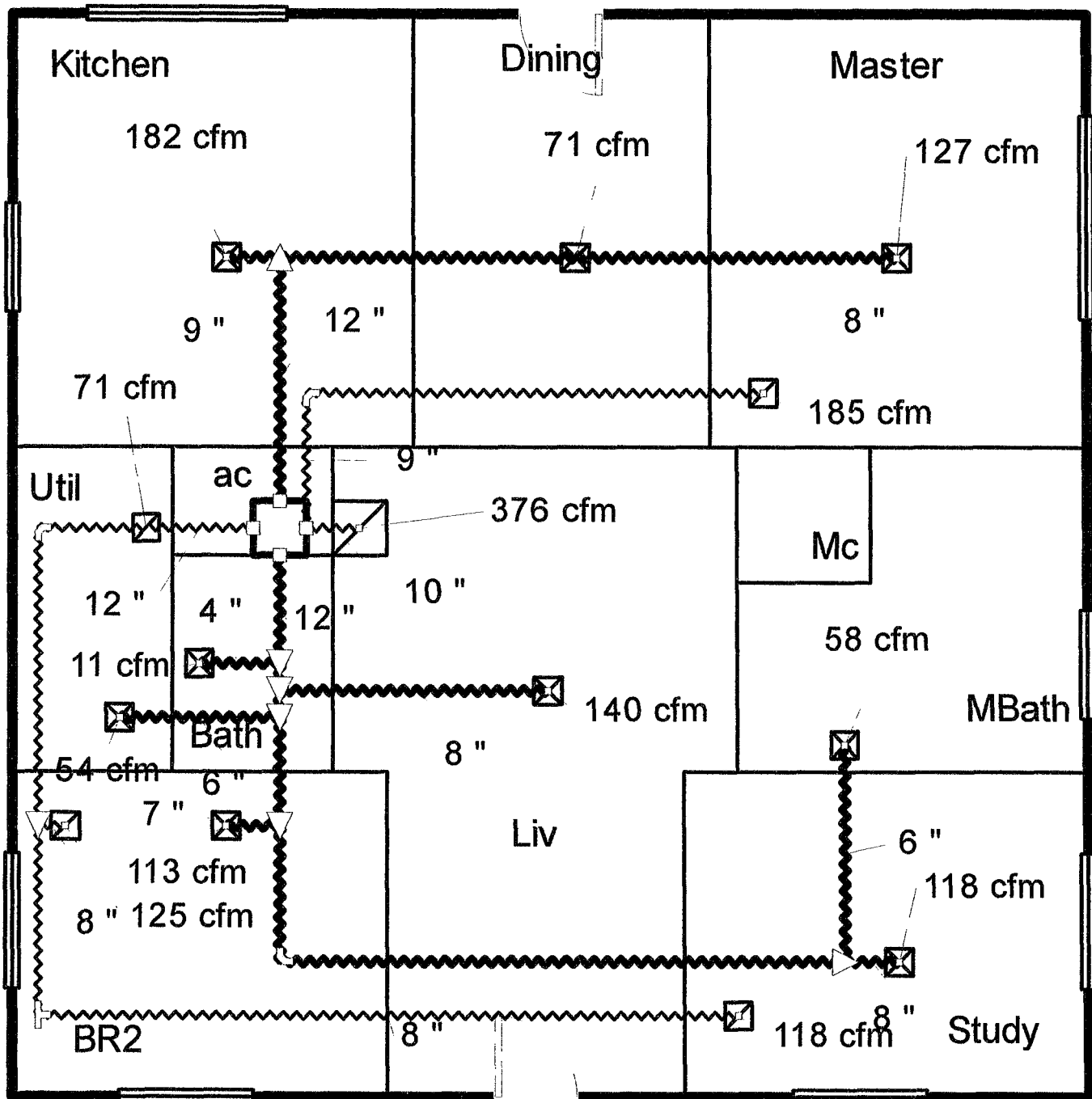
ord AIA CNU PAIHans Dindial Residence South.rup Calc = MJ8 Front Door faces N

2013-Sep-26 09:03 15

Page 1



Level 1



Job #:
Performed by R.Giro, PE for:
Hans Dindial Residence
Gainesville, FL

The Sustainable Design Group, LLC
5208 SW 91 Way Suite 110
Gainesville, FL 32608
Phone: 352-339-3899 Fax: 352-371-7188
www.sustainabledesigngroup.com Rafael.giro@sustai..

Scale: 1 : 69
Page 1
Right-Suite@ Universal 2013
13.0.01 RSU08058
2013-Sep-26 09:04:41
...Hans Dindial Residence South.r...



Duct System Summary Entire House

The Sustainable Design Group, LLC

Job:
Date: Sep 17, 2013
By: R.Giro, PE

5208 SW 91 Way, Suite 110, Gainesville, FL 32608 Phone: 352-339-3899 Fax: 352-371-7188 Email: Rafael.giro@sustainabledesigngroup.com Web: www.sustainabledesign.com

Project Information

For: Hans Dindial Residence
Gainesville, FL

	Heating	Cooling
External static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Pressure losses	0.22 in H ₂ O	0.22 in H ₂ O
Available static pressure	0.28 in H ₂ O	0.28 in H ₂ O
Supply / return available pressure	0.17 / 0.11 in H ₂ O	0.17 / 0.11 in H ₂ O
Lowest friction rate	0.100 in/100ft	0.100 in/100ft
Actual air flow	787 cfm	787 cfm
Total effective length (TEL)	411 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
BR2	h 2076	113	106	0.100	7.0	0x0	VIFx	12.0	175.0	st2
Bath	h 203	11	8	0.100	4.0	0x0	VIFx	7.0	115.0	st2
Dining	h 1305	71	44	0.100	6.0	0x0	VIFx	20.0	55.0	st1
Kitchen	c 3695	141	182	0.100	9.0	0x0	VIFx	11.0	115.0	st1
Liv	c 2846	109	140	0.100	8.0	0x0	VIFx	15.0	135.0	st2
MBath	h 1063	58	41	0.100	6.0	0x0	VIFx	44.0	205.0	st2
Master	h 2317	127	123	0.100	8.0	0x0	VIFx	32.0	115.0	st1
Study	h 2156	118	89	0.100	8.0	0x0	VIFx	38.0	205.0	st2
Util	c 1095	39	54	0.100	6.0	0x0	VIFx	12.0	155.0	st2

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	448	438	0.100	571	12.0	0 x 0	VinIFx	
st1	Peak AVF	339	349	0.100	444	12.0	0 x 0	VinIFx	

Bold/italic values have been manually overridden



wrightsoft®

Right-Suite® Universal 2013 13.0 01 RSU08058

ord AIA GNU PA\Hans Dindial Residence South rup Calc = MJ8 Front Door faces N

2013-Sep-26 09:03:15

Page 1

Return Branch Detail Table

Name	Grill 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
rb4	0x0	125	114	110.0	0.100	357	8.0	0x 0		VIFx	rt2
rb5	0x0	118	89	162.0	0.068	337	8.0	0x 0		VIFx	rt2
rb3	0x0	185	164	92.0	0.120	418	9.0	0x 0		VIFx	
rb1	0x0	288	376	62.0	0.178	690	10.0	0x 0		VIFx	
rb2	0x0	71	44	44.0	0.251	523	5.0	0x 0		VIFx	rt2

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt2	Peak AVF	314	247	0.068	399	12.0	0 x 0	VinIFlx	

