

Load Short Form

Entire House

New Age Dimensions, LLC.

Job: McDaniel & Reed Resid...
 Date: 10/5/2021
 By: Dakota Cross
 Plan: Manual J & D

14080 S.E. 122nd Lane Road, Ocklawaha, FL 32179 Phone: (352) 288 - 0686 Fax: (352) 288 - 0684 Email: john.newage@gmail.com

Project Information

For: Touchstone Heating & Air, Inc.
 490 S.E. 3rd Avenue, Lake Butler, FL 32054
 Phone: (386) 496 - 3467 Fax: (386) 496 - 3147

Design Information

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

HEATING EQUIPMENT

Make Amana
 Trade AMANA DISTINCTIONS
 Model GSZ140361K
 AHRI ref 201645075
 Efficiency 8.2 HSPF
 Heating input
 Heating output 32800 Btuh @ 47°F
 Temperature rise 25 °F
 Actual air flow 1200 cfm
 Air flow factor 0.046 cfm/Btuh
 Static pressure 0.51 in H2O
 Space thermostat
 Capacity balance point = 29 °F

Backup:

Input = 10 kW, Output = 34121 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Amana
 Trade AMANA DISTINCTIONS
 Cond GSZ140361K
 Coil ARUF37D14A
 AHRI ref 201645075
 Efficiency 11.5 EER, 14 SEER
 Sensible cooling 24080 Btuh
 Latent cooling 10320 Btuh
 Total cooling 34400 Btuh
 Actual air flow 1200 cfm
 Air flow factor 0.050 cfm/Btuh
 Static pressure 0.51 in H2O
 Load sensible heat ratio 0.77

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Mstr Bedroom	168	3900	3633	178	183
Mstr WIC	43	615	279	28	14
Bedroom #2	163	3938	3401	180	171
Bedroom #3	131	1810	2184	83	110
Bathroom	96	1361	759	62	38
Kitchen/Dining	276	3539	4059	162	204
Laundry	86	2631	2450	120	123
Living RM	676	8491	7066	388	356

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



Right-Suite® Universal 2021 21.0.08 RSU02050

2021-Oct-06 13:22:01

Page 1

...t HVAC\Touchstone\McDaniel & Reed Residence.rup Calc = MJ8 Front Door faces: S

Entire House	1639	26284	23833	1200	1200
Other equip loads		0	1707		
Equip. @ 0.97 RSM			24773		
Latent cooling			7430		
TOTALS	1639	26284	32203	1200	1200

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



Right-Suite® Universal 2021 21.0.08 RSU02050

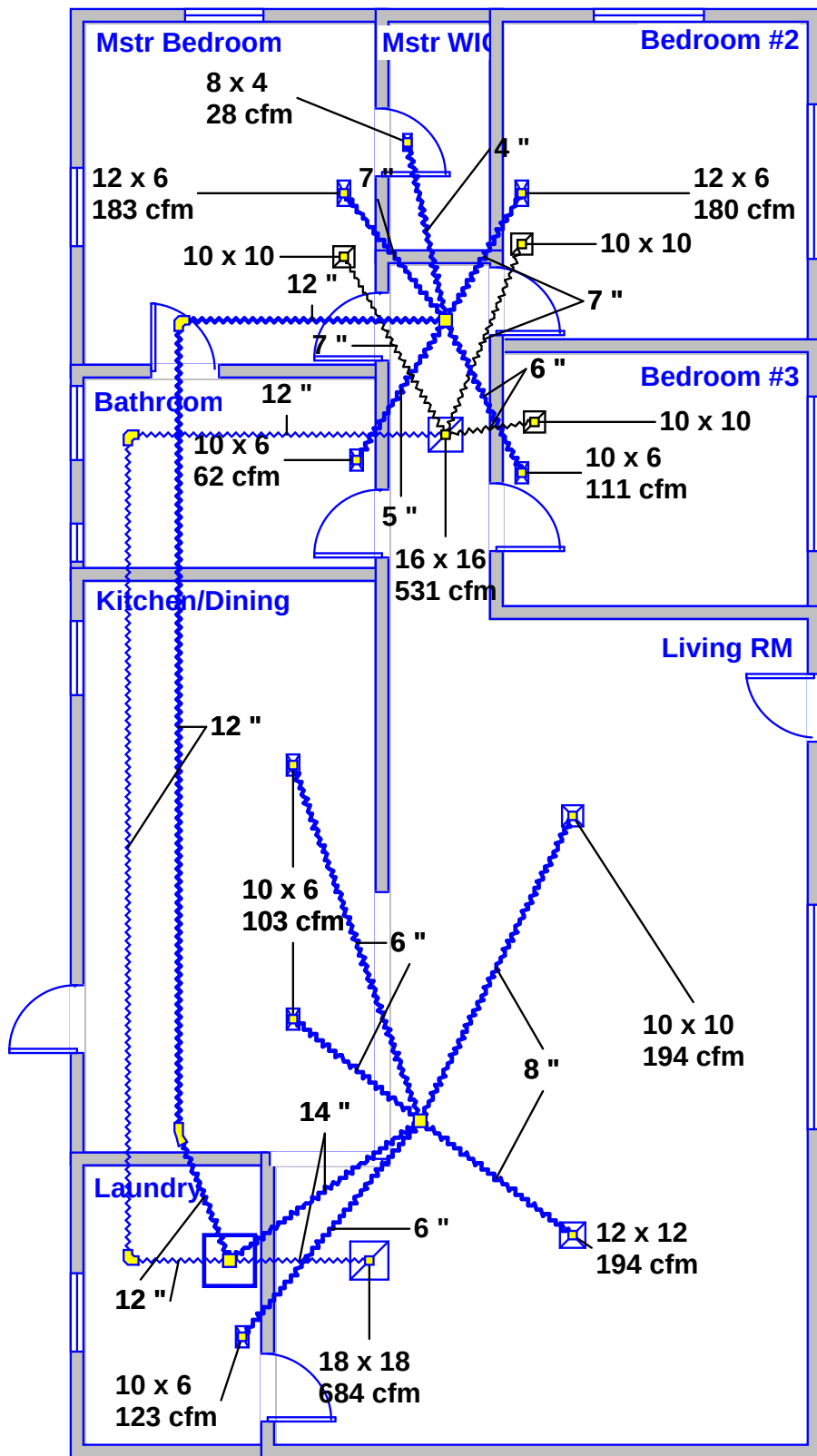
2021-Oct-06 13:22:01

Page 2

...t HVAC\Touchstone\McDaniel & Reed Residence.rup Calc = MJ8 Front Door faces: S



Sheet 1



Job #: McDaniel & Reed Residence
Performed by Dakota Cross for:

Touchstone Heating & Air, Inc.
 490 S.E. 3rd Avenue
 Lake Butler, FL 32054

Phone: (386) 496 - 3467 Fax: (386) 496 - 3147

New Age Dimensions, LLC.

14080 S.E. 122nd Lane Road
 Ocklawaha, FL 32179

Phone: (352) 288 - 0686 Fax: (352) 288 - 0684
 john.newage@gmail.com

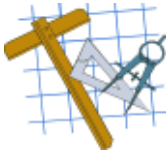
Scale: 1 : 82

Page 1

Right-Suite® Universal 2021
 21.0.08 RSU02050

2021-Oct-06 13:22:41

...ne\McDaniel & Reed Residence.rup



Manual S Compliance Report

Entire House

New Age Dimensions, LLC.

Job: McDaniel & Reed Resid...
Date: 10/5/2021
By: Dakota Cross
Plan: Manual J & D

14080 S.E. 122nd Lane Road, Ocklawaha, FL 32179 Phone: (352) 288 - 0686 Fax: (352) 288 - 0684 Email: john.newage@gmail.com

Project Information

For: Touchstone Heating & Air, Inc.
490 S.E. 3rd Avenue, Lake Butler, FL 32054
Phone: (386) 496 - 3467 Fax: (386) 496 - 3147

Cooling Equipment

Design Conditions

Outdoor design DB:	92.0°F	Sensible gain:	25539	Btuh	Entering coil DB:	78.4°F
Outdoor design WB:	76.3°F	Latent gain:	7430	Btuh	Entering coil WB:	64.0°F
Indoor design DB:	75.0°F	Total gain:	32969	Btuh		
Indoor RH:	50%	Estimated airflow:	1200	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Amana	Model:	GSZ140361K+ARUF37D14A
Actual airflow:	1200	cfm	
Sensible capacity:	24080	Btuh	94% of load
Latent capacity:	10320	Btuh	139% of load
Total capacity:	34400	Btuh	104% of load SHR: 70%

Heating Equipment

Design Conditions

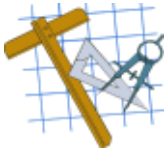
Outdoor design DB:	33.4°F	Heat loss:	26284	Btuh	Entering coil DB:	67.1°F
Indoor design DB:	68.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Amana	Model:	GSZ140361K+ARUF37D14A
Actual airflow:	1200	cfm	
Output capacity:	32800	Btuh	125% of load
Supplemental heat required:	0	Btuh	
			Capacity balance: 29 °F
			Economic balance: -99 °F

Backup equipment type:	Elec strip		
Manufacturer:		Model:	
Actual airflow:	1200	cfm	
Output capacity:	10.0	kW	130% of load Temp. rise: 22 °F

Meets all requirements of ACCA Manual S.



Duct System Summary

Entire House

New Age Dimensions, LLC.

Job: McDaniel & Reed Resid...
 Date: 10/5/2021
 By: Dakota Cross
 Plan: Manual J & D

14080 S.E. 122nd Lane Road, Ocklawaha, FL 32179 Phone: (352) 288 - 0686 Fax: (352) 288 - 0684 Email: john.newage@gmail.com

Project Information

For: Touchstone Heating & Air, Inc.
 490 S.E. 3rd Avenue, Lake Butler, FL 32054
 Phone: (386) 496 - 3467 Fax: (386) 496 - 3147

	Heating	Cooling
External static pressure	0.51 in H ₂ O	0.51 in H ₂ O
Pressure losses	0.18 in H ₂ O	0.18 in H ₂ O
Available static pressure	0.33 in H ₂ O	0.33 in H ₂ O
Supply / return available pressure	0.211 / 0.119 in H ₂ O	0.211 / 0.119 in H ₂ O
Lowest friction rate	0.880 in/100ft	0.880 in/100ft
Actual air flow	1200 cfm	1200 cfm
Total effective length (TEL)	359 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
Bathroom	h 1361	62	38	0.880	5.0	0x0	VIFx	54.4	175.0	st4
Bedroom #2	h 3938	180	171	0.880	7.0	0x0	VIFx	53.7	175.0	st4
Bedroom #3	c 2184	83	110	0.880	6.0	0x0	VIFx	54.6	175.0	st4
Kitchen/Dining	c 2029	81	102	0.880	6.0	0x0	VIFx	24.2	155.0	st1
Kitchen/Dining-A	c 2029	81	102	0.880	6.0	0x0	VIFx	15.7	155.0	st1
Laundry	c 2450	120	123	0.880	6.0	0x0	VIFx	20.3	155.0	st1
Living RM	h 4245	194	178	0.880	8.0	0x0	VIFx	16.8	155.0	st1
Living RM-A	h 4245	194	178	0.880	8.0	0x0	VIFx	22.7	155.0	st1
Mstr Bedroom	c 3633	178	183	0.880	7.0	0x0	VIFx	54.3	175.0	st4
Mstr WIC	h 615	28	14	0.880	4.0	0x0	VIFx	55.0	175.0	st4

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	669	684	0.880	639	14.0	0 x 0	VinIFlx	st2 st3
st2	Peak AVF	531	516	0.880	676	12.0	0 x 0	VinIFlx	
st3	Peak AVF	531	516	0.880	676	12.0	0 x 0	VinIFlx	
st4	Peak AVF	531	516	0.880	676	12.0	0 x 0	VinIFlx	



Right-Suite® Universal 2021 21.0.08 RSU02050

...t HVAC\Touchstone\McDaniel & Reed Residence.rup Calc = MJ8 Front Door faces: S

2021-Oct-06 13:22:01

Page 1

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	18x 18	669	684	65.5	0.880	639	14.0	0x 0		VIFx	
rb3	16x 15	531	516	129.0	0.880	676	12.0	0x 0		VIFx	rst9

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rst7	Peak AVF	531	516	0.880	676	12.0	0 x 0	VinIFlx	
rst8	Peak AVF	531	516	0.880	676	12.0	0 x 0	VinIFlx	rst7
rst9	Peak AVF	531	516	0.880	676	12.0	0 x 0	VinIFlx	rst8

