



Project Summary Entire House

Job: Ojeda Residence - Own...
Date: 08/21/2020
By: MAK

Project Information

For: Ojeda Residence
11116 CR 240, Suwanne, Live Oak, FL

Notes:



Design Information

Weather: Gainesville Rgnl, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °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	22470 Btuh
Ducts	5914 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	28384 Btuh

Sensible Cooling Equipment Load Sizing

Structure	15995 Btuh
Ducts	7625 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	22888 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	2296 Btuh
Ducts	1593 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Equipment latent load	3889 Btuh

	Heating	Cooling
Area (ft²)	1500	1500
Volume (ft³)	13950	13950
Air changes/hour	0.45	0.23
Equiv. AVF (cfm)	105	53

Equipment Total Load (Sen+Lat)	26777 Btuh
Req. total capacity at 0.80 SHR	2.4 ton

Heating Equipment Summary

Make	Rheem
Trade	RHEEM
Model	RP1430AJ1NA
AHRI ref	7489175
Efficiency	8.2 HSPF
Heating input	
Heating output	27400 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	960 cfm
Air flow factor	0.034 cfm/Btuh
Static pressure	0.53 in H2O
Space thermostat	
Capacity balance point = 35 °F	

Cooling Equipment Summary

Make	Rheem
Trade	RHEEM
Cond	RP1430AJ1NA
Coil	RH1T3617STANJAUSA
AHRI ref	7489175
Efficiency	11.5 EER, 14 SEER
Sensible cooling	23040 Btuh
Latent cooling	5760 Btuh
Total cooling	28800 Btuh
Actual air flow	960 cfm
Air flow factor	0.041 cfm/Btuh
Static pressure	0.53 in H2O
Load sensible heat ratio	0.86

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



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Duct System Summary Entire House

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11116 CR 240, Suwanne, Live Oak, FL

	Heating	Cooling
External static pressure	0.53 in H2O	0.53 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.53 in H2O	0.53 in H2O
Supply / return available pressure	0.336 / 0.194 in H2O	0.336 / 0.194 in H2O
Lowest friction rate	0.252 in/100ft	0.252 in/100ft
Actual air flow	960 cfm	960 cfm
Total effective length (TEL)	210 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 3285	111	79	0.317	6.0	0x0	VIFx	11.0	95.0	st1
BEDROOM	h 2958	100	90	0.304	6.0	0x0	VIFx	20.5	90.0	st2
GREAT ROOM	h 5373	182	161	0.256	8.0	0x0	VIFx	26.3	105.0	st3
GREAT ROOM-A	h 5373	182	161	0.252	8.0	0x0	VIFx	28.3	105.0	st3
HALL	c 1096	43	45	0.321	4.0	0x0	VIFx	9.6	95.0	st1
KITCHEN-A	c 4312	86	175	0.267	8.0	0x0	VIFx	20.7	105.0	st3
Laun Pan	c 1277	34	52	0.324	5.0	0x0	VIFx	8.7	95.0	st1
Lav	h 604	20	13	0.357	4.0	0x0	VIFx	4.1	90.0	st1
MASTER BEDROOM-A	h 5971	202	184	0.310	8.0	0x0	VIFx	18.3	90.0	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
st1	Peak AVF	209	189	0.317	597	8.0	0 x 0	VinIFlx	
st2	Peak AVF	302	275	0.304	554	10.0	0 x 0	VinIFlx	
st3	Peak AVF	450	497	0.252	465	14.0	0 x 0	VinIFlx	



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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
rb3	0x0	202	184	58.4	0.332	579	8.0	0x 0		VIFx	rt1
rb2	0x0	100	90	63.7	0.305	509	6.0	0x 0		VIFx	rt1
rb1	0x0	658	685	77.1	0.252	491	16.0	0x 0		VIFx	rt1

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt1	Peak AVF	960	960	0.252	543	18.0	0 x 0	VinIFlx	



Manual S Compliance Report Entire House

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Project Information

For: Ojeda Residence
11116 CR 240, Suwanne, Live Oak, FL

Cooling Equipment

Design Conditions

Outdoor design DB:	91.9°F	Sensible gain:	23620	Btuh	Entering coil DB:	77.8°F
Outdoor design WB:	76.2°F	Latent gain:	3889	Btuh	Entering coil WB:	63.8°F
Indoor design DB:	75.0°F	Total gain:	27509	Btuh		
Indoor RH:	50%	Estimated airflow:	960	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Rheem	Model:	RP1430AJ1NA+RH1T3617STANJAUSA
Actual airflow:	960	cfm	
Sensible capacity:	24925	Btuh	106% of load
Latent capacity:	3838	Btuh	99% of load
Total capacity:	28763	Btuh	105% of load SHR: 87%

Heating Equipment

Design Conditions

Outdoor design DB:	33.4°F	Heat loss:	28384	Btuh	Entering coil DB:	68.6°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Rheem	Model:	RP1430AJ1NA+RH1T3617STANJAUSA
Actual airflow:	960	cfm	
Output capacity:	23023	Btuh	81% of load
Supplemental heat required:	5361	Btuh	
		Capacity balance:	35 °F
		Economic balance:	-99 °F

Meets all requirements of ACCA Manual S.



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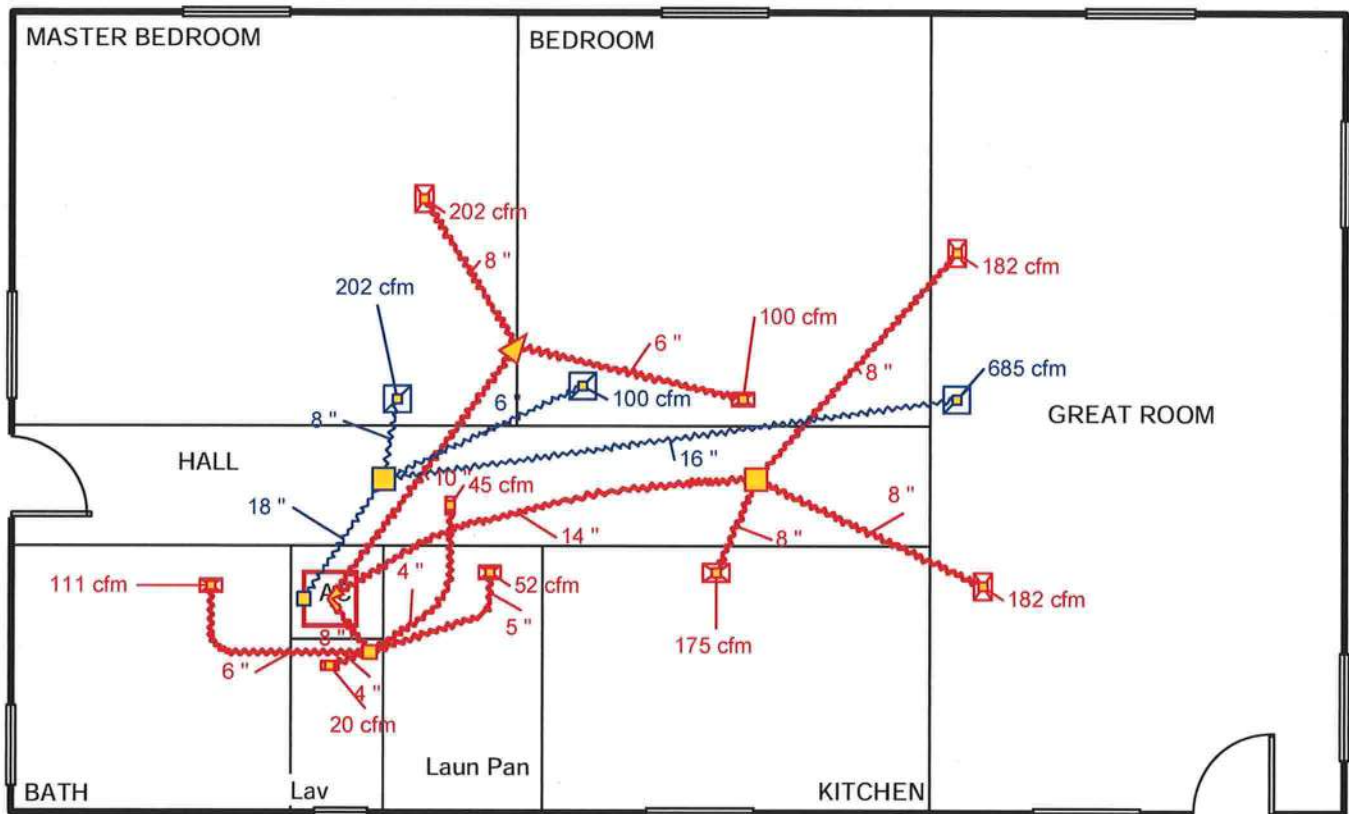
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1st Floor



Job #: Ojeda Residence - Owner - J-3635
Performed by MAK for:
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11116 CR 240, Suwanne
Live Oak, FL

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