



Project Summary Entire House Quick Calcs, Inc.

Job:
Date:
By:

31

317 St. Lucie Lane, Fort Pierce, FL 34946 Phone: 772-466-6799 Email: quickcalcs@aol.com

Project Information

For: Marcano Residence
3088 County Road 138, Fort White, FL 32038

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	27120 Btuh
Ducts	8083 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	35203 Btuh

Sensible Cooling Equipment Load Sizing

Structure	20928 Btuh
Ducts	9902 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	29875 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	3809 Btuh
Ducts	2144 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Equipment latent load	5953 Btuh

	Heating	Cooling
Area (ft²)	2083	2083
Volume (ft³)	16660	16660
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	89	44

Equipment Total Load (Sen+Lat)	35827 Btuh
Req. total capacity at 0.70 SHR	3.6 ton

Heating Equipment Summary

Make	Trane
Trade	TRANE
Model	4TWR5042G1
AHRI ref	7553540
Efficiency	9 HSPF
Heating input	
Heating output	39500 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	1367 cfm
Air flow factor	0.039 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 31 °F	
Backup:	
Input = 9 kW, Output = 31059 Btuh, 100 AFUE	

Cooling Equipment Summary

Make	Trane
Trade	TRANE
Cond	4TWR5042G1
Coil	TEM6A0D60H51++TDR
AHRI ref	7553540
Efficiency	12.5 EER, 15 SEER
Sensible cooling	28700 Btuh
Latent cooling	12300 Btuh
Total cooling	41000 Btuh
Actual air flow	1367 cfm
Air flow factor	0.044 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.84

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



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...Documents\Wrightsoft HVAC\Marcano Residence.rup Calc = MJ8 Front Door faces: E

Right-J® Worksheet

Entire House

Quick Calcs, Inc.

Job:
Date:
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317 St. Lucie Lane, Fort Pierce, FL 34946 Phone: 772-466-6799 Email: quickcalcs@aol.com

1	Room name					Entire House					Living Room				
2	Exposed wall					202.2 ft					29.0 ft				
3	Room height					8.0 ft					8.0 ft				
4	Room dimensions										18.0 x 12.0 ft				
5	Room area					2082.5 ft²					216.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0sw	0.097	n	3.55	2.61	555	489	1736	1278	0	0	0	0	
11	G	1A-r1ov	0.900	n	32.94	21.45	30	0	988	644	0	0	0	0	
	G	1A-r1ov	0.900	n	32.94	21.45	30	0	988	644	0	0	0	0	
	G	1B-r1fv	0.980	n	35.87	23.64	6	0	221	146	0	0	0	0	
	W	12B-0sw	0.097	e	3.55	2.61	232	193	684	504	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	21.45	6	12	198	129	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	26.29	7	11	224	179	0	0	0	0	
	G	1B-r1fv	0.980	e	35.87	23.64	6	12	221	146	0	0	0	0	
	D	11D0	0.390	e	14.27	11.45	20	20	291	234	0	0	0	0	
	W	12B-0sw	0.097	se	3.55	2.61	47	41	144	106	0	0	0	0	
	G	1B-r1fv	0.980	se	35.87	23.64	6	12	215	142	0	0	0	0	
	W	12B-0sw	0.097	s	3.55	2.61	512	370	1315	968	96	75	267	197	
	G	10A-v	0.820	s	30.01	16.26	20	41	612	332	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	41	82	1224	663	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	12	24	395	257	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	8	16	255	166	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	21	41	681	443	21	21	681	443	
	G	1A-r1ov	0.900	s	32.94	21.45	40	80	1318	858	0	0	0	0	
	W	12B-0sw	0.097	w	3.55	2.61	272	221	783	577	136	95	337	248	
	G	1A-r1ov	0.900	w	32.94	41.97	10	2	340	434	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	21.45	21	41	681	443	21	21	681	443	
D	11D0	0.390	w	14.27	11.45	20	20	291	234	20	20	291	234		
C		16B-30md	0.032	-	1.17	1.69	2083	2083	2439	3522	216	216	253	365	
F		22A-tpl	0.989	-	36.20	0.00	2083	202	7318	0	216	29	1050	0	
6	c) AED excursion									0				317	
	Envelope loss/gain								23564	13047			3560	2247	
12	a) Infiltration								3556	821			510	118	
	b) Room ventilation								0	0			0	0	
13	Internal gains:			Occupants @	230		12			2760	2			460	
				Appliances/other						4300				900	
	Subtotal (lines 6 to 13)								27120	20928			4070	3725	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			1	2	
14	Subtotal								27120	20928			4071	3727	
15	Duct loads						30%	47%	8083	9902	30%	47%	1213	1763	
	Total room load								35203	30830			5285	5491	
	Air required (cfm)								1367	1367			205	243	

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

317 St. Lucie Lane, Fort Pierce, FL 34946 Phone: 772-466-6799 Email: quickcalcs@aol.com

1	Room name					Closet 3					Bedroom 3				
2	Exposed wall					14.0 ft					29.0 ft				
3	Room height					8.0 ft 6.0 x 8.0 ft heat/cool					8.0 ft 1.0 x 258.0 ft heat/cool				
4	Room dimensions														
5	Room area					48.0 ft²					258.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²-F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0sw	0.097	n	3.55	2.61	0	0	0	0	144	129	458	337	
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	15	0	494	322	
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	n	35.87	23.64	0	0	0	0	0	0	0	0	
11	W	12B-0sw	0.097	e	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	26.29	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	e	35.87	23.64	0	0	0	0	0	0	0	0	
	D	11D0	0.390	e	14.27	11.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	se	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	se	35.87	23.64	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	s	3.55	2.61	64	64	227	167	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	w	3.55	2.61	48	48	170	125	88	78	276	203	
	G	1A-r1ov	0.900	w	32.94	41.97	0	0	0	0	10	1	340	434	
	G	1A-r1ov	0.900	w	32.94	21.45	0	0	0	0	0	0	0	0	
	D	11D0	0.390	w	14.27	11.45	0	0	0	0	0	0	0	0	
C		16B-30md	0.032	-	1.17	1.69	48	48	56	81	258	258	302	436	
F		22A-tpl	0.989	-	36.20	0.00	48	14	507	0	258	29	1050	0	
6	c) AED excursion									-11				63	
	Envelope loss/gain								961	363			2920	1795	
12	a) Infiltration								246	57			510	118	
	b) Room ventilation								0	0			0	0	
13	Internal gains:		Occupants @	230			0		0	0	2			460	
			Appliances/other						0	0				0	
	Subtotal (lines 6 to 13)								1207	420			3430	2373	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			7	10	
14	Subtotal								1207	420			3437	2383	
15	Duct loads						30%	47%	360	199	30%	47%	1024	1128	
	Total room load								1566	619			4462	3511	
	Air required (cfm)								61	27			173	156	

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

Right-J® Worksheet
Entire House
Quick Calcs, Inc.

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1	Room name					Kitchen					Bath				
2	Exposed wall					12.0 ft					0 ft				
3	Room height					8.0 ft					8.0 ft				
4	Room dimensions					17.0 x 12.0 ft					6.0 x 8.0 ft				
5	Room area					204.0 ft²					48.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·F)	Or	JTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0sw	0.097	n	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	n	35.87	23.64	0	0	0	0	0	0	0	0	
11	W	12B-0sw	0.097	e	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	26.29	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	e	35.87	23.64	0	0	0	0	0	0	0	0	
	D	11D0	0.390	e	14.27	11.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	se	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	se	35.87	23.64	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	s	3.55	2.61	96	88	313	231	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	8	8	255	166	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	w	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	41.97	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	21.45	0	0	0	0	0	0	0	0	
	D	11D0	0.390	w	14.27	11.45	0	0	0	0	0	0	0	0	
C		16B-30md	0.032	-	1.17	1.69	204	204	239	345	48	48	56	81	
F		22A-tpl	0.989	-	36.20	0.00	204	12	434	0	48	0	0	0	
6	c) AED excursion									-81				-2	
	Envelope loss/gain								1242	661			56	79	
12	a) Infiltration								211	49			0	0	
	b) Room ventilation								0	0			0	0	
13	Internal gains: Occupants @ 230						2			460	0			0	
	Appliances/other									2000				0	
	Subtotal (lines 6 to 13)								1453	3169			56	79	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								8	11			10	14	
14	Subtotal								1461	3181			66	93	
15	Duct loads						30%	47%	435	1505	30%	47%	20	44	
	Total room load								1896	4686			85	137	
	Air required (cfm)								74	208			3	6	

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

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1	Room name	Hall 0 ft				Bedroom 2 14.0 ft			
2	Exposed wall	8.0 ft				8.0 ft			
3	Room height	heat/cool				heat/cool			
4	Room dimensions	24.0 ft²				154.0 ft²			
5	Room area	6.0 x 4.0 ft				11.0 x 14.0 ft			
	Ty	Construction number	U-value (Btuh/ft²·F)	Or	HTM (Btuh/ft²)	Area (ft²) or perimeter (ft)	Load (Btuh)	Area (ft²) or perimeter (ft)	Load (Btuh)
					Heat Cool	Gross N/P/S	Heat Cool	Gross N/P/S	Heat Cool
6	W	12B-0sw	0.097	n	3.55 2.61	0 0	0 0	112 97	344 254
	G	1A-r1ov	0.900	n	32.94 21.45	0 0	0 0	15 0	494 322
	G	1A-r1ov	0.900	n	32.94 21.45	0 0	0 0	0 0	0 0
	G	1B-r1fv	0.980	n	35.87 23.64	0 0	0 0	0 0	0 0
11	W	12B-0sw	0.097	e	3.55 2.61	0 0	0 0	0 0	0 0
	G	1A-r1ov	0.900	e	32.94 21.45	0 0	0 0	0 0	0 0
	G	1A-r1ov	0.900	e	32.94 26.29	0 0	0 0	0 0	0 0
	G	1B-r1fv	0.980	e	35.87 23.64	0 0	0 0	0 0	0 0
	D	11D0	0.390	e	14.27 11.45	0 0	0 0	0 0	0 0
	W	12B-0sw	0.097	se	3.55 2.61	0 0	0 0	0 0	0 0
	G	1B-r1fv	0.980	se	35.87 23.64	0 0	0 0	0 0	0 0
	W	12B-0sw	0.097	s	3.55 2.61	0 0	0 0	0 0	0 0
	G	10A-v	0.820	s	30.01 16.26	0 0	0 0	0 0	0 0
	G	10A-v	0.820	s	30.01 16.26	0 0	0 0	0 0	0 0
	G	1A-r1ov	0.900	s	32.94 21.45	0 0	0 0	0 0	0 0
	G	1A-r1ov	0.900	s	32.94 21.45	0 0	0 0	0 0	0 0
	G	1A-r1ov	0.900	s	32.94 21.45	0 0	0 0	0 0	0 0
	G	1A-r1ov	0.900	s	32.94 21.45	0 0	0 0	0 0	0 0
	W	12B-0sw	0.097	w	3.55 2.61	0 0	0 0	0 0	0 0
	G	1A-r1ov	0.900	w	32.94 41.97	0 0	0 0	0 0	0 0
	G	1A-r1ov	0.900	w	32.94 21.45	0 0	0 0	0 0	0 0
	D	11D0	0.390	w	14.27 11.45	0 0	0 0	0 0	0 0
C		16B-30md	0.032	-	1.17 1.69	24 24	28 41	154 154	180 260
F		22A-tpl	0.989	-	36.20 0.00	24 0	0 0	154 14	507 0
6	c) AED excursion						-1		-34
	Envelope loss/gain						28 40		1526 802
12	a) Infiltration						0 0		246 57
	b) Room ventilation						0 0		0 0
13	Internal gains: Occupants @ 230					0	0 0	2	460 0
	Appliances/other						0 0		0 0
	Subtotal (lines 6 to 13)						28 40		1772 1319
	Less external load						0 0		0 0
	Less transfer						0 0		0 0
	Redistribution						-28 -40		6 8
14	Subtotal						0 0		1777 1327
15	Duct loads					30% 47%	0 0	30% 47%	530 628
	Total room load						0 0		2307 1955
	Air required (cfm)						0 0		90 87

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Right-J® Worksheet

Entire House

Quick Calcs, Inc.

Job:
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1	Room name					Conversation Room					AHU				
2	Exposed wall					22.0 ft					0 ft				
3	Room height					8.0 ft					8.0 ft				
4	Room dimensions					1.0 x 336.0 ft					3.0 x 6.0 ft				
5	Room area					336.0 ft²					18.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0sw	0.097	n	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	n	35.87	23.64	0	0	0	0	0	0	0	0	
11	W	12B-0sw	0.097	e	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	26.29	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	e	35.87	23.64	0	0	0	0	0	0	0	0	
	D	11D0	0.390	e	14.27	11.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	se	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	se	35.87	23.64	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	s	3.55	2.61	176	95	338	249	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	41	41	1224	663	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	40	40	1318	858	0	0	0	0	
	W	12B-0sw	0.097	w	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	41.97	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	21.45	0	0	0	0	0	0	0	0	
	D	11D0	0.390	w	14.27	11.45	0	0	0	0	0	0	0	0	
C		16B-30md	0.032	-	1.17	1.69	336	336	394	568	18	18	21	30	
F		22A-tpl	0.989	-	36.20	0.00	336	22	796	0	18	0	0	0	
6	c) AED excursion									-95				-1	
	Envelope loss/gain								4070	2244			21	30	
12	a) Infiltration								387	89			0	0	
	b) Room ventilation								0	0			0	0	
13	Internal gains:			Occupants @	230		2			460	0			0	
				Appliances/other						900				0	
	Subtotal (lines 6 to 13)								4457	3693			21	30	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								7	10			-21	-30	
14	Subtotal								4464	3703			0	0	
15	Duct loads						30%	47%	1330	1752	30%	47%	0	0	
	Total room load								5794	5455			0	0	
	Air required (cfm)								225	242			0	0	

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

Right-J® Worksheet
Entire House
Quick Calcs, Inc.

Job:
 Date:
 By:

317 St. Lucie Lane, Fort Pierce, FL 34946 Phone: 772-466-6799 Email: quickcalcs@aol.com

1	Room name						Master Bedroom				WIC 1				
2	Exposed wall						16.0 ft				0 ft				
3	Room height						8.0 ft				8.0 ft				
4	Room dimensions						1.0 x 310.0 ft				8.0 x 6.0 ft				
5	Room area						310.0 ft²				48.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0sw	0.097	n	3.55	2.61	128	98	348	256	0	0	0	0	
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	n	32.94	21.45	30	0	988	644	0	0	0	0	
	G	1B-r1fv	0.980	n	35.87	23.64	0	0	0	0	0	0	0	0	
11	W	12B-0sw	0.097	e	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	e	32.94	26.29	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	e	35.87	23.64	0	0	0	0	0	0	0	0	
	D	11D0	0.390	e	14.27	11.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	se	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	se	35.87	23.64	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	s	3.55	2.61	0	0	0	0	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	w	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	41.97	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	21.45	0	0	0	0	0	0	0	0	
	D	11D0	0.390	w	14.27	11.45	0	0	0	0	0	0	0	0	
C		16B-30md	0.032	-	1.17	1.69	310	310	363	524	48	48	56	81	
F		22A-tpl	0.989	-	36.20	0.00	310	16	579	0	48	0	0	0	
6	c) AED excursion									-49				-2	
	Envelope loss/gain								2278	1375			56	79	
12	a) Infiltration								281	65			0	0	
	b) Room ventilation								0	0			0	0	
13	Internal gains: Occupants @ 230						2			460	0			0	0
	Appliances/other									0				0	0
	Subtotal (lines 6 to 13)								2560	1900			56	79	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								11	15			0	0	
14	Subtotal								2570	1915			56	79	
15	Duct loads						30%	47%	766	906	30%	47%	17	37	
	Total room load								3336	2821			73	117	
	Air required (cfm)								130	125			3		

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



Right-J® Worksheet

Entire House

Quick Calcs, Inc.

Job:
Date:
By:

317 St. Lucie Lane, Fort Pierce, FL 34946 Phone: 772-466-6799 Email: quickcalcs@aol.com

Room name Exposed wall Room height Room dimensions Room area						WIC 2 8.0 ft 6.0 ft heat/cool 36.0 ft² 6.0 x 6.0 ft				Master Bath 8.0 ft 32.2 ft heat/cool 190.5 ft² 1.0 x 190.5 ft				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12B-0sw	0.097	n	3.55	2.61	48	48	170	125	123	117	415	306
11	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0
	G	1B-r1fv	0.980	n	35.87	23.64	0	0	0	0	6	0	221	146
	W	12B-0sw	0.097	e	3.55	2.61	0	0	0	0	88	82	291	214
	G	1A-r1ov	0.900	e	32.94	21.45	0	0	0	0	0	0	0	0
	G	1A-r1ov	0.900	e	32.94	26.29	0	0	0	0	0	0	0	0
	G	1B-r1fv	0.980	e	35.87	23.64	0	0	0	0	6	6	221	146
	D	11D0	0.390	e	14.27	11.45	0	0	0	0	0	0	0	0
	W	12B-0sw	0.097	se	3.55	2.61	0	0	0	0	47	41	144	106
	G	1B-r1fv	0.980	se	35.87	23.64	0	0	0	0	6	6	215	142
	W	12B-0sw	0.097	s	3.55	2.61	0	0	0	0	0	0	0	0
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0
	W	12B-0sw	0.097	w	3.55	2.61	0	0	0	0	0	0	0	0
	G	1A-r1ov	0.900	w	32.94	41.97	0	0	0	0	0	0	0	0
	G	1A-r1ov	0.900	w	32.94	21.45	0	0	0	0	0	0	0	0
	D	11D0	0.390	w	14.27	11.45	0	0	0	0	0	0	0	0
	C	16B-30md	0.032	-	1.17	1.69	36	36	42	61	191	191	223	322
	F	22A-tpl	0.989	-	36.20	0.00	36	6	217	0	191	32	1164	0
	6 c) AED excursion									-5				-38
	Envelope loss/gain								430	181			2895	1344
12 a) Infiltration								106	24			567	131	
b) Room ventilation								0	0			0	0	
13 Internal gains: Occupants @ 230 Appliances/other						0		0	0	0		0	0	
Subtotal (lines 6 to 13)								535	205			3461	1474	
Less external load								0	0			0	0	
Less transfer								0	0			0	0	
Redistribution								0	0			0	0	
14 Subtotal								535	205			3461	1474	
15 Duct loads						30%	47%	160	97	30%	47%	1032	698	
Total room load								695	303			4493	2172	
Air required (cfm)								27	13			174	96	

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

317 St. Lucie Lane, Fort Pierce, FL 34946 Phone: 772-466-6799 Email: quickcalcs@aol.com

1	Room name					Toilet 0 ft					Laundry 20.0 ft				
2	Exposed wall					8.0 ft					8.0 ft				
3	Room height					heat/cool					heat/cool				
4	Room dimensions					6.0 x 4.0 ft					10.0 x 10.0 ft				
5	Room area					24.0 ft²					100.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0sw	0.097	n	3.55	2.61	0	0	0	0	0	0	0	0	
11	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	n	35.87	23.64	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	e	3.55	2.61	0	0	0	0	80	74	263	193	
	G	1A-r1ov	0.900	e	32.94	21.45	0	0	0	0	6	6	198	129	
	G	1A-r1ov	0.900	e	32.94	26.29	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	e	35.87	23.64	0	0	0	0	0	0	0	0	
	D	11D0	0.390	e	14.27	11.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	se	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1B-r1fv	0.980	se	35.87	23.64	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	s	3.55	2.61	0	0	0	0	80	48	169	124	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	20	20	612	332	
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	12	12	395	257	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0	0	0	0	0	
	W	12B-0sw	0.097	w	3.55	2.61	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	41.97	0	0	0	0	0	0	0	0	
	G	1A-r1ov	0.900	w	32.94	21.45	0	0	0	0	0	0	0	0	
D	11D0	0.390	w	14.27	11.45	0	0	0	0	0	0	0	0		
C		16B-30md	0.032	-	1.17	1.69	24	24	28	41	100	100	117	169	
F		22A-tpl	0.989	-	36.20	0.00	24	0	0	0	100	20	724	0	
6	c) AED excursion									-1				-45	
	Envelope loss/gain								28	40			2478	1160	
12	a) Infiltration								0	0			352	81	
	b) Room ventilation								0	0			0	0	
13	Internal gains:		Occupants @	230		0			0	0		0		0	
			Appliances/other						0					500	
	Subtotal (lines 6 to 13)								28	40			2830	1741	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
14	Subtotal								28	40			2830	1741	
15	Duct loads						30%	47%	8	19		30%	47%	843	824
	Total room load								36	58			3673	2565	
	Air required (cfm)								1	3			143	114	

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

Right-J® Worksheet

Entire House

Quick Calcs, Inc.

Job:
Date:
By:

317 St. Lucie Lane, Fort Pierce, FL 34946 Phone: 772-466-6799 Email: quickcalcs@aol.com

1	Room name					Foyer									
2	Exposed wall					8.0 ft									
3	Room height					8.0 ft					heat/cool				
4	Room dimensions					1.0 x 68.0 ft									
5	Room area					68.0 ft²									
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0sw	0.097	n	3.55	2.61	0	0	0	0					
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0					
	G	1A-r1ov	0.900	n	32.94	21.45	0	0	0	0					
	G	1B-r1fv	0.980	n	35.87	23.64	0	0	0	0					
11	W	12B-0sw	0.097	e	3.55	2.61	64	37	131	96					
	G	1A-r1ov	0.900	e	32.94	21.45	0	0	0	0					
	G	1A-r1ov	0.900	e	32.94	26.29	7	5	224	179					
	G	1B-r1fv	0.980	e	35.87	23.64	0	0	0	0					
	D	11D0	0.390	e	14.27	11.45	20	20	291	234					
	W	12B-0sw	0.097	se	3.55	2.61	0	0	0	0					
	G	1B-r1fv	0.980	se	35.87	23.64	0	0	0	0					
	W	12B-0sw	0.097	s	3.55	2.61	0	0	0	0					
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0					
	G	10A-v	0.820	s	30.01	16.26	0	0	0	0					
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0					
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0					
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0					
	G	1A-r1ov	0.900	s	32.94	21.45	0	0	0	0					
	W	12B-0sw	0.097	w	3.55	2.61	0	0	0	0					
	G	1A-r1ov	0.900	w	32.94	41.97	0	0	0	0					
	G	1A-r1ov	0.900	w	32.94	21.45	0	0	0	0					
	D	11D0	0.390	w	14.27	11.45	0	0	0	0					
C		16B-30md	0.032	-	1.17	1.69	68	68	80	115					
F		22A-tpl	0.989	-	36.20	0.00	68	8	290	0					
6	c) AED excursion									-16					
	Envelope loss/gain								1015	607					
12	a) Infiltration								141	32					
	b) Room ventilation								0	0					
13	Internal gains: Occupants @ 230						0			0					
	Appliances/other									0					
	Subtotal (lines 6 to 13)								1156	640					
	Less external load								0	0					
	Less transfer								0	0					
	Redistribution								0	0					
14	Subtotal								1156	640					
15	Duct loads							30%	47%	344	303				
	Total room load									1500	942				
	Air required (cfm)									58	42				

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



Duct System Summary

Entire House

Quick Calcs, Inc.

Job:
Date:
By:

317 St. Lucie Lane, Fort Pierce, FL 34946 Phone: 772-466-6799 Email: quickcalcs@aol.com

Project Information

For: Marcano Residence
3088 County Road 138, Fort White, FL 32038

	Heating	Cooling
External static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Supply / return available pressure	0.250 / 0.250 in H ₂ O	0.250 / 0.250 in H ₂ O
Lowest friction rate	0.355 in/100ft	0.355 in/100ft
Actual air flow	1367 cfm	1367 cfm
Total effective length (TEL)	141 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	c 137	3	6	0.475	4.0	0x0	VIFx	15.3	90.0	st2
Bedroom 2	h 2307	90	87	0.454	6.0	0x0	VIFx	20.2	90.0	st2
Bedroom 3	h 4462	173	156	0.358	8.0	0x0	VIFx	29.5	110.0	st5
Closet 3	h 1566	61	27	0.355	6.0	0x0	VIFx	30.8	110.0	st5
Conversation Room	c 2728	112	121	0.475	7.0	0x0	VIFx	15.3	90.0	st4
Conversation Room-A	c 2728	112	121	0.479	7.0	0x0	VIFx	14.5	90.0	st4
Foyer	h 1500	58	42	0.370	6.0	0x0	VIFx	25.1	110.0	st7
Kitchen-A	c 4686	74	208	0.459	8.0	0x0	VIFx	19.0	90.0	st1
Laundry	h 3673	143	114	0.363	7.0	0x0	VIFx	27.9	110.0	st7
Living Room	c 2745	103	122	0.436	7.0	0x0	VIFx	24.6	90.0	st1
Living Room-A	c 2745	103	122	0.453	7.0	0x0	VIFx	20.4	90.0	st1
Master Bath	h 4493	174	96	0.370	8.0	0x0	VIFx	25.3	110.0	st6
Master Bedroom	h 3336	130	125	0.474	7.0	0x0	VIFx	15.4	90.0	st3
Toilet	c 58	1	3	0.364	4.0	0x0	VIFx	27.5	110.0	st6
WIC 1	c 117	3	5	0.461	4.0	0x0	VIFx	18.5	90.0	st3
WIC 2	h 695	27	13	0.446	4.0	0x0	VIFx	22.0	90.0	st3

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st7	Peak AVF	201	155	0.363	575	8.0	0 x 0	VinlFix	st4
st4	Peak AVF	426	397	0.363	542	12.0	0 x 0	VinlFix	
st6	Peak AVF	176	99	0.364	504	8.0	0 x 0	VinlFix	st3
st3	Peak AVF	335	243	0.364	427	12.0	0 x 0	VinlFix	
st5	Peak AVF	234	183	0.355	530	9.0	0 x 0	VinlFix	st2
st2	Peak AVF	327	276	0.355	599	10.0	0 x 0	VinlFix	
st1	Peak AVF	279	451	0.436	574	12.0	0 x 0	VinlFix	

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	1367	1367	0	0	0	0	0x 0		VIFx	