

Project Summary

Entire House

Lane Heating & Air

Job:
Date: Apr 16, 2025
By: Matthew D Stewart

Project Information

For: Cothran Addition
281 Sw Breezy Dr, Lake City, FL 32025

Notes:

Design Information

Weather: St Pete-Clearwater Intl, FL, US

Winter Design Conditions

Outside db 45 °F
Inside db 70 °F
Design TD 25 °F

Ventilation Method MJ8

Heating Summary

Structure 22439 Btuh
Ducts (R-6.0) 6485 Btuh
Central vent (0 cfm) 0 Btuh

Humidification 0 Btuh
Piping 0 Btuh
Equipment load 28924 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft ²)	2941	2941
Volume (ft ³)	26467	26467
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	141	71

Heating Equipment Summary

Make Heil
Trade PERFORMANCE 16 SEER2 HP
Model N5H5S60*K*AAA*
AHRI ref 214101949

Efficiency 7.5 HSPF2
Heating input
Heating output 55500 Btuh @ 47°F
Temperature rise 28 °F
Actual air flow 1775 cfm
Air flow factor 0.061 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 29 °F
Backup: n/a n/a
Input = 0 kW, Output = 0 Btuh, 100 AFUE

Summer Design Conditions

Outside db 91 °F
Inside db 72 °F
Design TD 19 °F
Daily range L
Relative humidity 50 %
Moisture difference 64 gr/lb

Sensible Cooling Equipment Load Sizing

Structure 29386 Btuh
Ducts (R-6.0) 11740 Btuh
Central vent (0 cfm) 0 Btuh

Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.96
Equipment sensible load 39481 Btuh

Latent Cooling Equipment Load Sizing

Structure 6050 Btuh
Ducts 2360 Btuh
Central vent (0 cfm) 0 Btuh

Equipment latent load 8410 Btuh

Equipment Total Load (Sen+Lat) 47891 Btuh
Req. total capacity at 0.70 SHR 4.7 ton

Cooling Equipment Summary

Make Heil
Trade PERFORMANCE 16 SEER2 HP
Cond N5H5S60*K*AAA*
Coil FHMA5*60L*D*
AHRI ref 214101949
Efficiency 12.0 EER2, 14.5 SEER2
Sensible cooling 40250 Btuh
Latent cooling 17250 Btuh
Total cooling 57500 Btuh
Actual air flow 1775 cfm
Air flow factor 0.043 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.83

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

Manual S Compliance Report

Entire House

Lane Heating & Air

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For: Cothran Addition
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Cooling Equipment

Design Conditions

Outdoor design DB:	91.0°F	Sensible gain:	41126 Btuh	Entering coil DB:	74.7°F
Outdoor design WB:	77.6°F	Latent gain:	8410 Btuh	Entering coil WB:	61.4°F
Indoor design DB:	72.0°F	Total gain:	49536 Btuh		
Indoor RH:	50%	Estimated airflow:	1775 cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Heil	Model:	N5H5S60*K*AAA*+FHMA5*60L*D*		
Actual airflow:	1775 cfm				
Sensible capacity:	45197 Btuh	110%	of load		
Latent capacity:	8863 Btuh	105%	of load		
Total capacity:	54060 Btuh	109%	of load SHR: 84%		

Heating Equipment

Design Conditions

Outdoor design DB:	45.4°F	Heat loss:	28924 Btuh	Entering coil DB:	69.3°F
Indoor design DB:	70.0°F				

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Heil	Model:	N5H5S60*K*AAA*+FHMA5*60L*D*		
Actual airflow:	1775 cfm				
Output capacity:	54363 Btuh	188%	of load		
Supplemental heat required:	0 Btuh				
		Capacity balance:	29 °F		
		Economic balance:	-99 °F		

Backup equipment type:	Elec strip				
Manufacturer:	n/a	Model:	n/a+n/a		
Actual airflow:	1775 cfm				
Output capacity:	0 kW	0%	of load Temp. rise: 0 °F		

Meets all requirements of ACCA Manual S.

Project Information

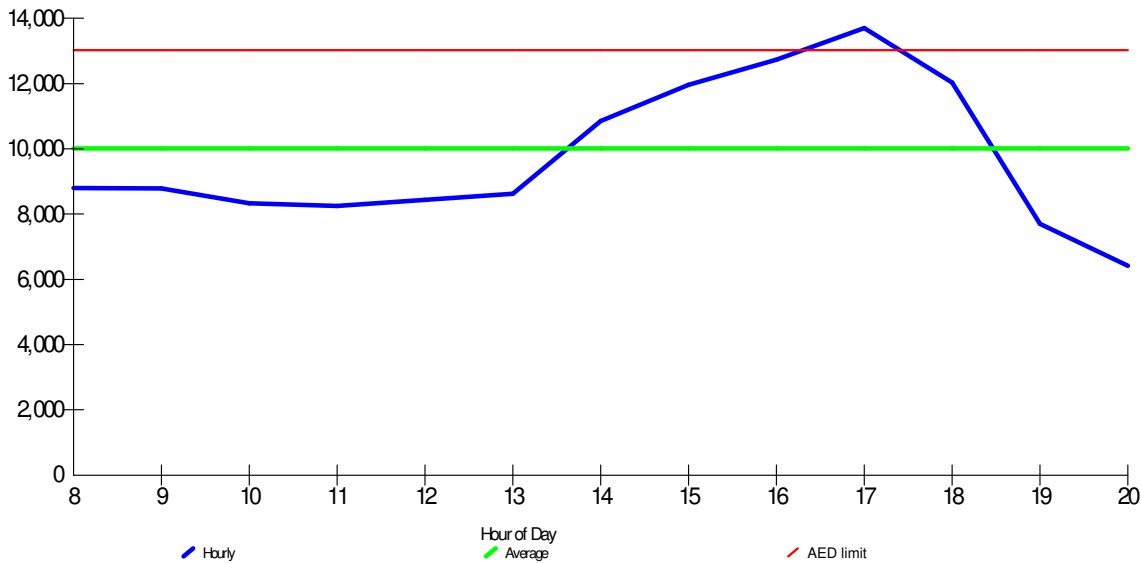
For: Cothran Addition
281 Sw Breezy Dr, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
St Pete-Clearwater Intl, FL, US		Indoor temperature (°F)		70	72
Elevation:	11 ft	Design TD (°F)		25	19
Latitude:	28°N	Relative humidity (%)		30	50
Outdoor:		Infiltration:		-3.3	63.6
		Moisture difference (gr/lb)			
Heating	Cooling				
Dry bulb (°F)	45	91			
Daily range (°F)	-	13 (L)			
Wet bulb (°F)	-	78			
Wind speed (mph)	15.0	7.5			

Test for Adequate Exposure Diversity

Hourly Glazing Load



Maximum hourly glazing load exceeds average by 36.7%.

House does not have adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 674 Btuh (PFG - 1.3*AFG)

Right-J® Worksheet

Entire House

Lane Heating & Air

Job:
Date: Apr 16, 2025
By: Matthew D Stewart

1	Room name					Entire House				WIC				
2	Exposed wall					341.6 ft				13.7 ft				
3	Room height					9.0 ft				9.0 ft				
4	Room dimensions									6.7 x 12.7 ft				
5	Room area					3402.3 ft²				84.4 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	12E-0sw	0.068	ne	1.10	1.12	720	491	538	548	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	36	0	416	973	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	40	0	465	760	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	40	0	462	757	0	0	0	0
11	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	96	0	1110	2594	0	0	0	0
	D	11D0	0.390	ne	0.00	0.00	17	17	0	0	0	0	0	0
	W	12E-0sw	0.068	se	1.44	1.47	753	641	923	940	63	63	105	107
	D	11J0	0.600	se	0.00	0.00	112	112	0	0	0	0	0	0
	W	12E-0sw	0.068	sw	1.21	1.24	720	546	662	675	60	48	80	82
	G	2 glazing, clr low-e	0.470	sw	11.56	19.87	4	2	46	79	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	24.44	20	4	231	489	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	24.95	12	2	139	299	12	2	139	299
	G	2 glazing, clr low-e	0.470	sw	6.94	14.97	90	17	624	1347	0	0	0	0
	D	11D0	0.390	sw	9.59	13.32	48	48	461	639	0	0	0	0
	W	12E-0sw	0.068	nw	1.47	1.50	753	598	880	896	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	10	0	116	270	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	25	0	289	676	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	36	0	416	973	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	64	0	740	1729	0	0	0	0
	D	11D0	0.390	nw	9.59	13.32	20	20	193	268	0	0	0	0
	P	12C-0sw	0.000	-	0.00	0.00	129	109	0	0	0	0	0	0
	D	11D0	0.390	n	9.59	13.32	20	20	193	268	0	0	0	0
	C	16B-38ad	0.026	-	0.55	1.30	3402	3402	1881	4408	84	84	54	127
	F	22A-vpm	1.180	-	22.94	0.00	3402	342	7835	0	84	14	397	0

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

Right-J® Worksheet

Entire House

Lane Heating & Air

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1	Room name					Primary Bath					WC				
2	Exposed wall					24.7 ft					5.3 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					1.0 x 188.0 ft					4.0 x 5.3 ft				
5	Room area					188.0 ft²					21.3 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	12E-0sw	0.068	ne	1.10	1.12	0	0	0	0	0	0	0	0	
.	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0	
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0	
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0	
11	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0	
	D	11D0	0.390	ne	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	se	1.44	1.47	0	0	0	0	0	0	0	0	
	D	11J0	0.600	se	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	sw	1.21	1.24	72	52	87	89	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	11.56	19.87	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	11.56	24.44	20	4	231	489	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	11.56	24.95	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	6.94	14.97	0	0	0	0	0	0	0	0	
	D	11D0	0.390	sw	9.59	13.32	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	nw	1.47	1.50	150	140	234	238	48	48	80	82	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	10	0	116	270	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	D	11D0	0.390	nw	9.59	13.32	0	0	0	0	0	0	0	0	
	P	12C-0sw	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0	
	D	11D0	0.390	n	9.59	13.32	0	0	0	0	0	0	0	0	
	C	16B-38ad	0.026	-	0.55	1.30	188	188	120	282	21	21	14	32	
	F	22A-vpm	1.180	-	22.94	0.00	188	25	716	0	21	5	155	0	

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1	Room name					Ln 0 ft				Foyer 7.7 ft				
2	Exposed wall					9.0 ft				9.0 ft				
3	Room height					1.7 x 4.3 ft				7.7 x 7.7 ft				
4	Room dimensions					7.2 ft²				58.8 ft²				
5	Room area													
	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	12E-0sw	0.068	ne	1.10	1.12	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0
11	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0
	D	11D0	0.390	ne	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	se	1.44	1.47	0	0	0	0	0	0	0	0
	D	11J0	0.600	se	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	sw	1.21	1.24	0	0	0	0	69	21	35	36
	G	2 glazing, clr low-e	0.470	sw	11.56	19.87	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	24.44	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	24.95	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	6.94	14.97	0	0	0	0	0	0	0	0
	D	11D0	0.390	sw	9.59	13.32	0	0	0	0	48	48	461	639
	W	12E-0sw	0.068	nw	1.47	1.50	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	D	11D0	0.390	nw	9.59	13.32	0	0	0	0	0	0	0	0
	P	12C-0sw	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	D	11D0	0.390	n	9.59	13.32	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.55	1.30	7	7	5	11	59	59	38	88
	F	22A-vpm	1.180	-	22.94	0.00	7	0	0	0	59	8	223	0
								</						

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Right-J® Worksheet

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1	Room name					Primary Bedroom 31.7 ft				Bedroom 2 12.3 ft				
2	Exposed wall					9.0 ft heat/cool				9.0 ft heat/cool				
3	Room height					14.0 x 17.7 ft				12.3 x 12.3 ft				
4	Room dimensions													
5	Room area					247.3 ft²				152.1 ft²				
	Ty	Construction number	U-value (Bt uh/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	12E-0sw	0.068	ne	1.10	1.12	126	86	144	146	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	40	0	462	757	0	0	0	0
11	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0
	D	11D0	0.390	ne	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	se	1.44	1.47	0	0	0	0	60	60	100	102
	D	11J0	0.600	se	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	sw	1.21	1.24	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	19.87	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	24.44	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	24.95	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	6.94	14.97	0	0	0	0	0	0	0	0
	D	11D0	0.390	sw	9.59	13.32	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	nw	1.47	1.50	159	134	224	228	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	25	0	289	676	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	D	11D0	0.390	nw	9.59	13.32	0	0	0	0	0	0	0	0
	P	12C-0sw	0.000	-	0.00	0.00	0	0	0	0	51	51	0	0
	D	11D0	0.390	n	9.59	13.32	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.55	1.30	247	247	158	371	152	152	97	228
	F	22A-vpm	1.180	-	22.94	0.00	247	32	919	0	152	12	358	0

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Right-J® Worksheet

Entire House

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Job:
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1	Room name					Vanity					Bath				
2	Exposed wall					0 ft					12.0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					5.7 x 6.0 ft					1.0 x 35.0 ft				
5	Room area					34.0 ft²					35.0 ft²				
	Ty	Construction number	U-value (Bt uh/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	12E-0sw	0.068	ne	1.10	1.12	0	0	0	0	27	27	45	46	
.	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0	
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0	
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0	
11	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0	
	D	11D0	0.390	ne	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	se	1.44	1.47	0	0	0	0	54	54	90	92	
	D	11J0	0.600	se	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	sw	1.21	1.24	0	0	0	0	27	27	45	46	
	G	2 glazing, clr low-e	0.470	sw	11.56	19.87	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	11.56	24.44	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	11.56	24.95	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	6.94	14.97	0	0	0	0	0	0	0	0	
	D	11D0	0.390	sw	9.59	13.32	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	nw	1.47	1.50	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	D	11D0	0.390	nw	9.59	13.32	0	0	0	0	0	0	0	0	
	P	12C-0sw	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0	
	D	11D0	0.390	n	9.59	13.32	0	0	0	0	0	0	0	0	
	C	16B-38ad	0.026	-	0.55	1.30	34	34	22	51	35	35	22	52	
	F	22A-vpm	1.180	-	22.94	0.00	34	0	0	0	35	12	348	0	
									</						

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

Right-J® Worksheet

Entire House

Lane Heating & Air

Job:
Date: Apr 16, 2025
By: Matthew D Stewart

1	Room name					Hall 0 ft				Living 15.0 ft				
2	Exposed wall					9.0 ft				9.0 ft				
3	Room height					1.0				1.0				
4	Room dimensions					50.0 ft x 50.0 ft				410.3 ft x 410.3 ft				
5	Room area					50.0 ft²				410.3 ft²				
	Ty	Construction number	U-value (Bt uh/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	12E-0sw	0.068	ne	1.10	1.12	0	0	0	0	135	39	65	66
.	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0
11	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	96	0	1110	2594
	D	11D0	0.390	ne	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	se	1.44	1.47	0	0	0	0	0	0	0	0
	D	11J0	0.600	se	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	sw	1.21	1.24	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	19.87	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	24.44	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	11.56	24.95	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	sw	6.94	14.97	0	0	0	0	0	0	0	0
	D	11D0	0.390	sw	9.59	13.32	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	nw	1.47	1.50	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
	D	11D0	0.390	nw	9.59	13.32	0	0	0	0	0	0	0	0
	P	12C-0sw	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	D	11D0	0.390	n	9.59	13.32	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.55	1.30	50	50	32	75	410	410	262	615
	F	22A-vpm	1.180	-	22.94	0.00	50	0	0	0	410	15	435	0
								</						

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

Right-J® Worksheet

Entire House

Lane Heating & Air

Job:
Date: Apr 16, 2025
By: Matthew D Stewart

1	Room name					Bedroom 3					Kitchen				
2	Exposed wall					12.7 ft					0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					1.0 x 151.3 ft					1.0 x 223.9 ft				
5	Room area					151.3 ft²					223.9 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	12E-0sw	0.068	ne	1.10	1.12	0	0	0	0	0	0	0	0	
.	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0	
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0	
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0	
11	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0	
	D	11D0	0.390	ne	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	se	1.44	1.47	114	114	191	194	0	0	0	0	
	D	11J0	0.600	se	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	sw	1.21	1.24	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	11.56	19.87	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	11.56	24.44	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	11.56	24.95	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	sw	6.94	14.97	0	0	0	0	0	0	0	0	
	D	11D0	0.390	sw	9.59	13.32	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	nw	1.47	1.50	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0	
	D	11D0	0.390	nw	9.59	13.32	0	0	0	0	0	0	0	0	
	P	12C-0sw	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0	
	D	11D0	0.390	n	9.59	13.32	0	0	0	0	0	0	0	0	
	C	16B-38ad	0.026	-	0.55	1.30	151	151	97	227	224	224	143	336	
	F	22A-vpm	1.180	-	22.94	0.00	151	13	368	0	224	0	0	0	

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

Right-J® Worksheet

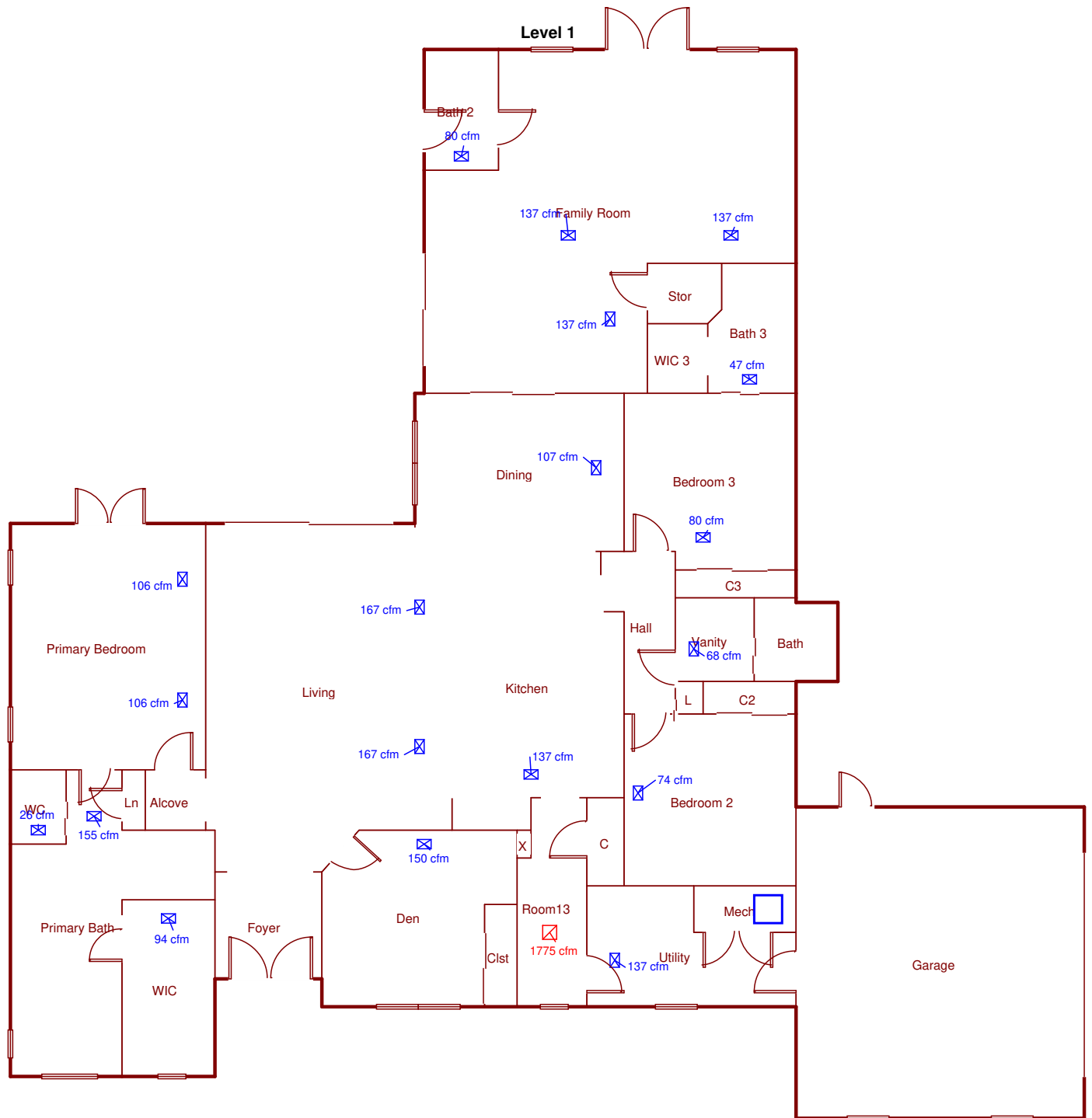
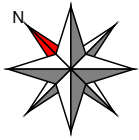
Entire House

Lane Heating & Air

Job:
Date: Apr 16, 2025
By: Matthew D Stewart

1	Room name					Garage 71.7 ft				Family Room 52.7 ft				
2	Exposed wall					9.0 ft				9.0 ft				
3	Room height					uncondit.				heat/cool				
4	Room dimensions					20.7 x 22.3 ft				1.0 x 512.0 ft				
5	Room area					461.6 ft²				512.0 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	12E-0sw	0.068	ne	1.10	1.12	186	169	0	0	192	116	194	197
.	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	36	0	416	973
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	40	0	465	760
.	G	2 glazing, clr low-e	0.470	ne	11.56	18.91	0	0	0	0	0	0	0	0
11	G	2 glazing, clr low-e	0.470	ne	11.56	27.02	0	0	0	0	0	0	0	0
.	D	11D0	0.390	ne	0.00	0.00	17	17	0	0	0	0	0	0
.	W	12E-0sw	0.068	se	1.44	1.47	201	89	0	0	138	138	231	235
.	D	11J0	0.600	se	0.00	0.00	112	112	0	0	0	0	0	0
.	W	12E-0sw	0.068	sw	1.21	1.24	186	150	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	sw	11.56	19.87	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	sw	11.56	24.44	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	sw	11.56	24.95	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	sw	6.94	14.97	36	7	0	0	0	0	0	0
.	D	11D0	0.390	sw	9.59	13.32	0	0	0	0	0	0	0	0
.	W	12E-0sw	0.068	nw	1.47	1.50	72	72	0	0	144	80	134	136
.	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	0	0	0	0
.	G	2 glazing, clr low-e	0.470	nw	11.56	27.02	0	0	0	0	64	0	740	1729
.	D	11D0	0.390	nw	9.59	13.32	0	0	0	0	0	0	0	0
.	P	12C-0sw	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
.	D	11D0	0.390	n	9.59	13.32	0	0	0	0	0	0	0	0
.	C	16B-38ad	0.026	-	0.55	1.30	462	462	0	0	512	512	327	767
.	F	22A-vpm	1.180	-	22.94	0.00	462	72	0	0	512	53	1529	0
6	c) AED excursion									0				-159
	Envelope loss/gain									0	0		4036	4639
12	a) Infiltration									0	0		787	304
	b) Room ventilation									0	0		0	0
13	Internal gains: Occupants @ 230						0			0	0	4		920
	Appliances/other									0				900
	Subtotal (lines 6 to 13)									0	0			4822
	Less external load									0	0			0
	Less transfer									0	0			0
	Redistribution									0	0		15	32
14	Subtotal									0	0			4837
15	Duct loads						0%	0%		0	0	29%	40%	1398
	Total room load									0	0			6235
	Air required (cfm)									0	0			383
														9510
														410

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



Job #:
Performed by Matthew D Stewart for:
Cothran Addition
281 Sw Breezy Dr
Lake City, FL 32025

Lane Heating & Air

Scale: 1 : 128
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Duct System Summary

Entire House

Lane Heating & Air

Job:
Date: Apr 16, 2025
By: Matthew D Stewart

Project Information

For: Cothran Addition
281 Sw Breezy Dr, Lake City, FL 32025

	Heating	Cooling
External static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Pressure losses	0.16 in H ₂ O	0.16 in H ₂ O
Available static pressure	0.34 in H ₂ O	0.34 in H ₂ O
Supply / return available pressure	0.170 / 0.170 in H ₂ O	0.170 / 0.170 in H ₂ O
Lowest friction rate	0 in/100ft	0 in/100ft
Actual air flow	1775 cfm	1775 cfm
Total effective length (TEL)		0 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 2	h 799	80	34	0	0	0x0	VIFx	0	0	
Bath 3	h 404	47	17	0	0	0x0	VIFx	0	0	
Bedroom 2	c 1718	64	74	0	0	0x0	VIFx	0	0	
Bedroom 3	c 1853	74	80	0	0	0x0	VIFx	0	0	
Den	c 3473	140	150	0	0	0x0	VIFx	0	0	
Dining	c 2479	84	107	0	0	0x0	VIFx	0	0	
Family Room	c 3170	128	137	0	0	0x0	VIFx	0	0	
Family Room-A	c 3170	128	137	0	0	0x0	VIFx	0	0	
Family Room-B	c 3170	128	137	0	0	0x0	VIFx	0	0	
Kitchen	c 3178	23	137	0	0	0x0	VIFx	0	0	
Living	c 3874	95	167	0	0	0x0	VIFx	0	0	
Living-A	c 3874	95	167	0	0	0x0	VIFx	0	0	
Primary Bath	h 2584	155	112	0	0	0x0	VIFx	0	0	
Primary Bedroom	h 1606	106	69	0	0	0x0	VIFx	0	0	
Primary Bedroom-A	h 1606	106	69	0	0	0x0	VIFx	0	0	
Utility	h 2046	137	88	0	0	0x0	VIFx	0	0	
Vanity	h 571	68	25	0	0	0x0	VIFx	0	0	
WC	h 193	26	8	0	0	0x0	VIFx	0	0	
WIC	h 1359	94	59	0	0	0x0	VIFx	0	0	

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	0x0	1775	1775	0	0	0	0	0x 0		VIFx	