

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Lot 18 River Rise SD Street: City, State, Zip: Lake City, FL, Owner: Lee Holloway Design Location: FL, Gainesville	Builder Name: Permit Office: Columbia County Permit Number: Jurisdiction: County: Columbia(Florida Climate Zone 2)
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1. New construction or existing New (From Plans) 2. Single family or multiple family Detached 3. Number of units, if multiple family 1 4. Number of Bedrooms 4 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 3276 Conditioned floor area below grade (ft²) 0 7. Windows(451.0 sqft.) Description Area a. U-Factor: Dbl, U=0.36 451.00 ft² SHGC: SHGC=0.25 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 4.856 ft Area Weighted Average SHGC: 0.250 8. Skylights Description Area U-Factor:(AVG) N/A N/A ft² SHGC(AVG): N/A 9. Floor Types Insulation Area a. Slab-On-Grade Edge Insulation R= 0.0 2682.00 ft² b. Floor over Garage R= 19.0 594.00 ft² c. N/A R= ft²	10. Wall Types(3602.5 sqft.) Insulation Area a. Frame - Wood, Exterior R=13.0 3232.50 ft² b. Frame - Wood, Adjacent R=13.0 370.00 ft² c. N/A d. N/A 11. Ceiling Types(3603.4 sqft.) Insulation Area a. Flat ceiling under att (Vented) R=38.0 3603.40 ft² b. N/A c. N/A 12. Roof(Comp. Shingles, Vented) Deck R=0.0 4265 ft² 13. Ducts, location & insulation level R ft² a. Sup: Attic, Ret: Attic, AH: Garage 6 819 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 48.3 SEER2:16.00 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 52.6 HSPF2:8.80 16. Hot Water Systems a. Electric Cap: 50 gallons EF: 0.920 b. Conservation features None 17. Credits CV, Pstat
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Glass/Floor Area:0.138	Total Proposed Modified Loads: 87.30	PASS
	Total Baseline Loads: 92.69	
NOTE: Proposed residence must have annual total normalized Modified Loads that are less than or equal to 95 percent of the annual total loads of the standard reference design in order to comply.		

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>W. C. [Signature]</u> DATE: <u>1 / 13 / 2025</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: _____ DATE: _____	Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes. BUILDING OFFICIAL: _____ DATE: _____
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- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Default duct leakage does not require a Duct Leakage Test Report.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT																										
Title:	Lot 18 River Rise SD				Address type:	Lot																				
Building Type:	User				Bedrooms:	4		Lot #:	18																	
Owner:	Lee Holloway				Conditioned Area:	3276		Block/SubDivision:	River Rise SD																	
Builder Home ID:					Total Stories:	2		PlatBook:																		
Builder Name:					Worst Case:	No		Street:																		
Permit Office:	Columbia County				Rotate Angle:	0		County:	Columbia																	
Jurisdiction:					Cross Ventilation:	Yes		City, State, Zip:	Lake City, FL,																	
Family Type:	Detached				Whole House Fan:	No																				
New/Existing:	New (From Plans)				Terrain:	Suburban																				
Year Construct:	2024				Shielding:	Suburban																				
Comment:																										
CLIMATE																										
✓ Design Location	Tmy Site			Design Temp		97.5% 2.5%		Int Design Temp		Heating Degree Days		Design Moisture		Daily temp Range												
___ FL, Gainesville	FL_GAINESVILLE_REGIONA			32 92		70 75		1305.5		51		Medium														
BLOCKS																										
✓ Number	Name		Area		Volume																					
___ 1	Block1		3276		31572 cu ft																					
SPACES																										
✓ Number	Name		Area		Volume		Kitchen		Occupants		Bedrooms		Finished		Cooled		Heated									
___ 1	1st Floor		2682		26820		Yes		8		3		Yes		Yes		Yes									
___ 2	2nd Floor		594		4752		No		2		1		Yes		Yes		Yes									
FLOORS (Total Exposed Area = 3276 sq.ft.)																										
✓ #	Floor Type		Space		Exposed Perim(ft)		Area		R-Value Perim. Joist		U-Factor		Slab Insul. Vert/Horiz		Tile		Wood		Carpet							
___ 1	Slab-On-Grade Edge Ins		1st Floor		267.33		2682 sqft		0.0 ---		0.304		2 (ft)/0 (ft)		0.00		0.00		1.00							
___ 2	Floor over Garage		2nd Floor		---		594 sqft		--- 19.0		0.046		-----		0.00		0.00		1.00							
ROOF																										
✓ #	Type		Materials		Roof Area		Gable Area		Framing. Fract.		Roof Color		Rad Barr		Solar Absor.		SA Tested		Emitt		Emitt Tested		Deck Insul.		Pitch (deg)	
___ 1	Gable or shed		Composition shingles		4265 ft²		764 ft²		0.11		Medium		Y		0.96		No		0.9		No		0		39.81	
ATTIC																										
✓ #	Type		Ventilation		Vent Ratio (1 in)		Area		RBS		IRCC															
___ 1	Partial cathedral ceiling		Vented		300		3276 ft²		Y		N															

INPUT SUMMARY CHECKLIST REPORT

CEILING (Total Exposed Area = 3603 sq.ft.)														
✓ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type						
___ 1	Flat ceiling under attic(Vented)	1st Floor	38.0	Double Batt	2950.0ft²	0.024	0.11	Wood						
___ 2	Flat ceiling under attic(Vented)	2nd Floor	38.0	Double Batt	653.4ft²	0.024	0.11	Wood						

WALLS (Total Exposed Area = 3603 sq.ft.)															
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___ 1	W	Exterior	Frame - Wood	1st Floor	13.0	13.0	4	10.0	0	133.3	0.084		0.23	0.75	0 %
___ 2	N	Exterior	Frame - Wood	1st Floor	13.0	6.0	0	10.0	0	60.0	0.084		0.23	0.75	0 %
___ 3	W	Exterior	Frame - Wood	1st Floor	13.0	15.0	8	10.0	0	156.7	0.084		0.23	0.75	0 %
___ 4	S	Exterior	Frame - Wood	1st Floor	13.0	4.0	0	10.0	0	40.0	0.084		0.23	0.75	0 %
___ 5	W	Exterior	Frame - Wood	1st Floor	13.0	11.0	2	12.0	0	134.0	0.084		0.23	0.75	0 %
___ 6	W	Exterior	Frame - Wood	1st Floor	13.0	11.0	0	12.0	0	132.0	0.084		0.23	0.75	0 %
___ 7	W	Exterior	Frame - Wood	1st Floor	13.0	11.0	2	12.0	0	134.0	0.084		0.23	0.75	0 %
___ 8	N	Exterior	Frame - Wood	1st Floor	13.0	3.0	0	10.0	0	30.0	0.084		0.23	0.75	0 %
___ 9	W	Exterior	Frame - Wood	1st Floor	13.0	15.0	8	10.0	0	156.7	0.084		0.23	0.75	0 %
___ 10	S	Exterior	Frame - Wood	1st Floor	13.0	40.0	8	10.0	0	406.7	0.084		0.23	0.75	0 %
___ 11	E	Exterior	Frame - Wood	1st Floor	13.0	12.0	0	10.0	0	120.0	0.084		0.23	0.75	0 %
___ 12	N	Exterior	Frame - Wood	1st Floor	13.0	8.0	0	10.0	0	80.0	0.084		0.23	0.75	0 %
___ 13	E	Exterior	Frame - Wood	1st Floor	13.0	24.0	6	12.0	0	294.0	0.084		0.23	0.75	0 %
___ 14	S	Exterior	Frame - Wood	1st Floor	13.0	12.0	0	11.0	0	132.0	0.084		0.23	0.75	0 %
___ 15	E	Exterior	Frame - Wood	1st Floor	13.0	12.0	10	11.0	0	141.2	0.084		0.23	0.75	0 %
___ 16	N	Garage	Frame - Wood	1st Floor	13.0	8.0	4	10.0	0	83.3	0.084		0.23	0.75	0 %
___ 17	E	Garage	Frame - Wood	1st Floor	13.0	28.0	8	10.0	0	286.7	0.084		0.23	0.75	0 %
___ 18	N	Exterior	Frame - Wood	1st Floor	13.0	26.0	4	10.0	0	263.3	0.084		0.23	0.75	0 %
___ 19	W	Exterior	Frame - Wood	2nd Floor	13.0	14.0	10	8.0	0	118.7	0.084		0.23	0.75	0 %
___ 20	S	Exterior	Frame - Wood	2nd Floor	13.0	36.0	4	8.0	0	290.7	0.084		0.23	0.75	0 %
___ 21	E	Exterior	Frame - Wood	2nd Floor	13.0	14.0	10	8.0	0	118.7	0.084		0.23	0.75	0 %
___ 22	N	Exterior	Frame - Wood	2nd Floor	13.0	36.0	4	8.0	0	290.7	0.084		0.23	0.75	0 %

DOORS (Total Exposed Area = 24 sq.ft.)											
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
___ 1	E	Garage	Insulated	1st Floor	None	0.46	3.00	0	8.00	0	24.0ft²

WINDOWS (Total Exposed Area = 451 sq.ft.)																	
✓ #	Ornt	Wall ID	Frame	Panes	NFRC U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen	
___ 1	W	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	36.0	2	3.00	6.00	1.5	1.0	None	None
___ 2	W	3	Vinyl	Low-E Double	Y	0.36	0.25	N	N	36.0	2	3.00	6.00	1.0	3.0	None	None
___ 3	W	5	Vinyl	Low-E Double	Y	0.36	0.25	N	N	37.5	2	2.50	7.50	1.5	1.0	None	None
___ 4	W	6	TIM	Low-E Double	Y	0.36	0.25	N	N	57.0	2	3.00	9.50	7.5	1.0	None	None
___ 5	W	7	Vinyl	Low-E Double	Y	0.36	0.25	N	N	37.5	2	2.50	7.50	1.5	1.0	None	None
___ 6	W	9	Vinyl	Low-E Double	Y	0.36	0.25	N	N	36.0	2	3.00	6.00	1.0	3.0	None	None
___ 7	S	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	8.0	1	2.00	4.00	1.5	1.0	None	None
___ 8	E	11	Vinyl	Low-E Double	Y	0.36	0.25	N	N	18.0	1	3.00	6.00	1.0	3.0	None	None
___ 9	E	13	Vinyl	Low-E Double	Y	0.36	0.25	N	N	45.0	2	3.00	7.50	13.5	1.0	None	None
___ 10E		13	TIM	Low-E Double	Y	0.36	0.25	N	N	57.0	2	3.00	9.50	13.5	1.0	None	None
___ 11E		15	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	2.50	6.00	1.5	1.0	None	None
___ 12N		18	Vinyl	Low-E Double	Y	0.36	0.25	N	N	8.0	2	2.00	2.00	1.5	1.0	None	None
___ 13E		21	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.0	1	3.00	5.00	1.0	2.0	None	None
___ 14N		22	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	1.5	0.5	None	None

INPUT SUMMARY CHECKLIST REPORT

INFILTRATION											
✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume	
___ 1	Wholehouse	Proposed ACH(50)	0.00043	3683	202.08	379.39	0.1950	7.0	All	31572 cu ft	

GARAGE								
✓ #	Floor Area	Length	Width	Roof Area	Exposed Perimeter	Area Under Uncond.	Avg. Wall Height	Exposed Wall Insulation
___ 1	896 ft²	24.7 ft²	36.3 ft²	896 ft²	95 ft	302 ft	9 ft	1

MASS					
✓ #	Mass Type	Area	Thickness	Furniture Fraction	Space
___ 1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	1st Floor
___ 2	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	2nd Floor

HEATING SYSTEM										
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump----		Ducts	Block	
						Entry	Power	Volt	Current	
___ 1	Electric Heat Pump	None/Single		HSPF2: 8.80	52.6		0.00	0.00	0.00	sys#1 1

COOLING SYSTEM									
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___ 1	Central Unit	None/Single		SEER2:16.0	48.3	1440	0.75	sys#1	1

HOT WATER SYSTEM											
✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixt. Flow	Trap	Pipe Ins.	Pipe length
___ 1	Electric	None	Garage	0.92 (0.92)	50.0 gal	40 gal	120 deg	Standard	Yes	None	12
	Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits	
___ 1	No		NA	NA	NA	No	NA	NA	NA	None	

DUCTS												
✓ Duct #	Location	Supply----- R-Value Area	Return----- Location R-Value Area	Leakage Type	AHU Location	CFM 25 TOT OUT	QN OUT	AHU SEALED	RLF	HVAC # Heat Cool		
___ 1	Attic	6.0 819 ft²	Attic 6.0 164 ft²	Default Leakage	Garage	(Default) (Default)				1	1	

TEMPERATURES													
Programable Thermostat: Y							Ceiling Fans: N						
Cooling	[] Jan	[] Feb	[] Mar	[] Apr	[] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[] Oct	[] Nov	[] Dec	
Heating	[X] Jan	[X] Feb	[X] Mar	[] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[] Oct	[X] Nov	[X] Dec	
Venting	[] Jan	[] Feb	[X] Mar	[X] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[X] Oct	[X] Nov	[] Dec	

INPUT SUMMARY CHECKLIST REPORT

TEMPERATURES(Continued)													
✓ Thermostat Schedule: HERS 2006 Reference		Hours											
Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
___ Cooling (WD)	AM PM	78 80	78 80	78 78	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78
___ Cooling (WEH)	AM PM	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78
___ Heating (WD)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66
___ Heating (WEH)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 94

The lower the EnergyPerformance Index, the more efficient the home.

,Lake City,FL,

1. New construction or existing	New (From Plans)	10. Wall Types(3602.5 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=13.0	3232.50 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	370.00 ft ²
4. Number of Bedrooms	4	c. N/A		
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	3276	11. Ceiling Types(3603.4 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0	3603.40 ft ²
7. Windows**	Description	b. N/A		
a. U-Factor:	Dbl, U=0.36	c. N/A		
SHGC:	SHGC=0.25	12. Roof(Comp. Shingles, Vented) Deck	R=0.0	4265 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	6	819
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth:	4.856 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.250	a. Central Unit	48.3	SEER2:16.00
8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	52.6	HSPF2:8.80
SHGC(AVG):	N/A			
9. Floor Types	Insulation	16. Hot Water Systems		
a. Slab-On-Grade Edge Insulation	R= 0.0	a. Electric		Cap: 50 gallons
b. Floor over Garage	R= 19.0			EF: 0.920
c. N/A	R=	b. Conservation features		
				None
		17. Credits		CV, Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: Lake City,FL,



*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Envelope Leakage Test Report (Blower Door Test)
Residential Prescriptive, Performance or ERI Method Compliance
2023 Florida Building Code, Energy Conservation, 8th Edition

Jurisdiction:	Permit #:	
Job Information		
Builder:	Community:	Lot: 18
Address:		
City: Lake City	State: FL	Zip:
Air Leakage Test Results <i>Passing results must meet either the Performance, Prescriptive, or ERI Method</i>		
☐ PRESCRIPTIVE METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2. ☒ PERFORMANCE or ERI METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2023 (Performance) or R406-2023 (ERI), section labeled as infiltration, sub-section ACH50. <i>ACH(50) specified on Form R405-2023-Energy Calc (Performance) or R406-2023 (ERI):</i> 7.000 Method for calculating building volume: ☐ Retrieved from architectural plans ☒ Code software calculated ☐ Field measured and calculated PASS $\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div \frac{31572}{\text{ACH}(50)} =$ ☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.		
R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Dwelling units with an air leakage rate less than three air changes per hour shall be provided with whole-house mechanical ventilation in accordance with Section R403.6.1 of this code and Section M1507.3 if the <i>Florida Building Code, Residential</i>. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), <i>Florida Statutes</i>, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official <i>trade official</i>. Testing shall be performed at any time after creation of all penetrations of the building <i>building thermal envelope</i>. During testing: - Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures. - Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures. - Interior doors, if installed at the time of the test, shall be open. - Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed. - Heating and cooling systems, if installed at the time of the test, shall be turned off. - Supply and return registers, if installed at the time of the test, shall be fully open. - If an attic is both sealed and insulated at the roof deck, interior access doors and hatches between the conditioned space volume and the attic shall be opened during the test and the volume of the attic shall be added to the conditioned space volume for purposes of reporting the infiltration volume and calculating the air leakage of the home.		
Testing Company		
Company Name: _____ Phone: _____ I hereby verify that the above Air Leakage results are in accordance with the 2023 8th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above. Signature of Tester: _____ Date of Test: _____ Printed Name of Tester: _____ License/Certification #: _____ Issuing Authority: _____		

Residential System Sizing Calculation

Summary

Lee Holloway

Project Title:
Lot 18 River Rise SD

Lake City, FL

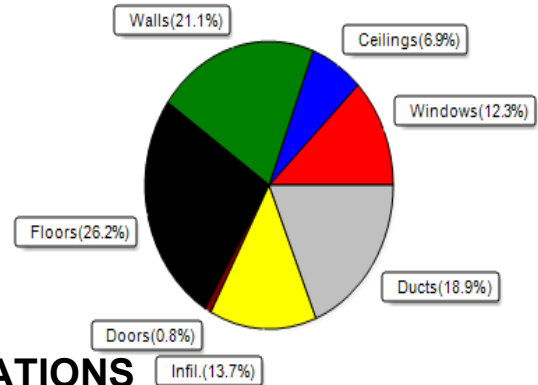
1/13/2025

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (79F) Humidity difference(54gr.)			
Winter design temperature(MJ8 99%/Cu)33 F		Summer design temperature(MJ8 99%/Cu)99 F	
Winter setpoint 70 F		Summer setpoint 75 F	
Winter temperature difference 37 F		Summer temperature difference 24 F	
Total heating load calculation	48694 Btuh	Total cooling load calculation	52829 Btuh
Submitted heating capacity % of calc Btuh		Submitted cooling capacity % of calc Btuh	
Total (Electric Heat Pump) 108.0 52593		Sensible (SHR = 0.75) 82.5 36232	
Heat Pump + Auxiliary(0.0kW) 108.0 52593		Latent 135.7 12077	
		Total (Electric Heat Pump) 91.4 48310	

WINTER CALCULATIONS

Winter Heating Load (for 3276 sqft)

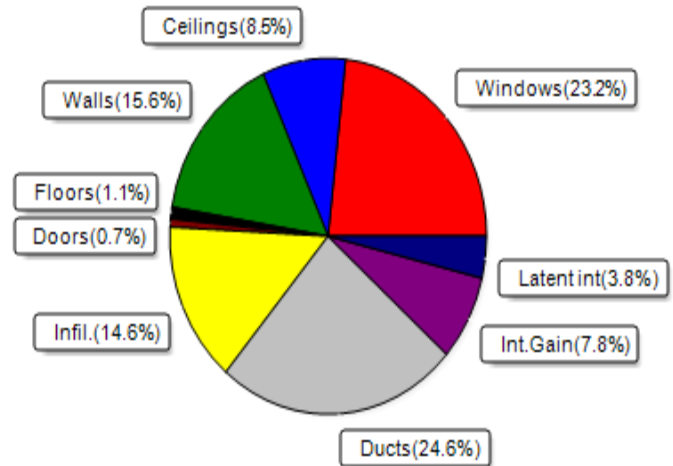
Load component	Load
Window total 451 sqft	6007 Btuh
Wall total 3127 sqft	10271 Btuh
Door total 24 sqft	408 Btuh
Ceiling total 3603 sqft	3384 Btuh
Floor total See detail report	12774 Btuh
Infiltration 164 cfm	6649 Btuh
Duct loss	9200 Btuh
Subtotal	48694 Btuh
Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS	48694 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 3276 sqft)

Load component	Load
Window total 451 sqft	12281 Btuh
Wall total 3127 sqft	8267 Btuh
Door total 24 sqft	386 Btuh
Ceiling total 3603 sqft	4481 Btuh
Floor total	566 Btuh
Infiltration 123 cfm	3235 Btuh
Internal gain	4100 Btuh
Duct gain	10610 Btuh
Sens.Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load	0 Btuh
Total sensible gain	43926 Btuh
Latent gain(ducts)	2403 Btuh
Latent gain(infiltration)	4499 Btuh
Latent gain(ventilation)	0 Btuh
Latent gain(internal/occupants/other)	2000 Btuh
Total latent gain	8902 Btuh
TOTAL HEAT GAIN	52829 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: 1 / 13 / 2025

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Lee Holloway

Lake City, FL

Project Title:
Lot 18 River Rise SD
Building Type: User

1/13/2025

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 °F (MJ8 99%/Cu)
Winter Setpoint: 70 °F (Required Manual J default)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	2, NFRC 0.25	Vinyl	0.36	W	36.0		13.3	480 Btuh
2	2, NFRC 0.25	Vinyl	0.36	W	36.0		13.3	480 Btuh
3	2, NFRC 0.25	Vinyl	0.36	W	37.5		13.3	500 Btuh
4	2, NFRC 0.25	TIM	0.36	W	57.0		13.3	759 Btuh
5	2, NFRC 0.25	Vinyl	0.36	W	37.5		13.3	500 Btuh
6	2, NFRC 0.25	Vinyl	0.36	W	36.0		13.3	480 Btuh
7	2, NFRC 0.25	Vinyl	0.36	S	8.0		13.3	107 Btuh
8	2, NFRC 0.25	Vinyl	0.36	E	18.0		13.3	240 Btuh
9	2, NFRC 0.25	Vinyl	0.36	E	45.0		13.3	599 Btuh
10	2, NFRC 0.25	TIM	0.36	E	57.0		13.3	759 Btuh
11	2, NFRC 0.25	Vinyl	0.36	E	30.0		13.3	400 Btuh
12	2, NFRC 0.25	Vinyl	0.36	N	8.0		13.3	107 Btuh
13	2, NFRC 0.25	Vinyl	0.36	E	15.0		13.3	200 Btuh
14	2, NFRC 0.25	Vinyl	0.36	N	30.0		13.3	400 Btuh
Window Total					451.0(sqft)			6007 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	97		3.28	320 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	60		3.28	197 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	121		3.28	396 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	40		3.28	131 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	97		3.28	317 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	75		3.28	246 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	97		3.28	317 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	30		3.28	99 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	121		3.28	396 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	399		3.28	1309 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	102		3.28	335 Btuh
12	Frame - Wood	- Ext	(0.089)	13.0/0.0	80		3.28	263 Btuh
13	Frame - Wood	- Ext	(0.089)	13.0/0.0	192		3.28	631 Btuh
14	Frame - Wood	- Ext	(0.089)	13.0/0.0	132		3.28	433 Btuh
15	Frame - Wood	- Ext	(0.089)	13.0/0.0	111		3.28	365 Btuh
16	Frame - Wood	- Adj	(0.089)	13.0/0.0	83		3.28	274 Btuh
17	Frame - Wood	- Adj	(0.089)	13.0/0.0	263		3.28	863 Btuh
18	Frame - Wood	- Ext	(0.089)	13.0/0.0	255		3.28	839 Btuh
19	Frame - Wood	- Ext	(0.089)	13.0/0.0	119		3.28	390 Btuh
20	Frame - Wood	- Ext	(0.089)	13.0/0.0	291		3.28	955 Btuh
21	Frame - Wood	- Ext	(0.089)	13.0/0.0	104		3.28	340 Btuh
22	Frame - Wood	- Ext	(0.089)	13.0/0.0	261		3.28	856 Btuh
Wall Total					3128(sqft)			10271 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Garage	n	(0.460)		24		17.0	408 Btuh
Door Total					24(sqft)			408Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Lee Holloway
Lake City, FL

Project Title:
Lot 18 River Rise SD
Building Type: User

1/13/2025

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Flat ceil/D/Shing	(0.025)	38.0/0.0	2950	0.94	2770 Btuh
2	Flat ceil/D/Shing	(0.025)	38.0/0.0	653	0.94	614 Btuh
	Ceiling Total			3603(sqft)		3384Btuh
Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	267.3 ft(perim.)	43.7	11672 Btuh
2	Raised Wood - Adj	(0.050)	19.0	594.0 sqft	1.9	1102 Btuh
	Floor Total			3276 sqft		12774 Btuh
	Envelope Subtotal:					32844 Btuh
Infiltration	Type	Wholehouse ACH	Volume(cuft)	Wall Ratio	CFM=	
	Natural	0.31	31572	1.00	164.2	6649 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.233)					9200 Btuh
All Zones	Sensible Subtotal All Zones					48694 Btuh

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	48694 Btuh
	Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Total Heat Loss	48694 Btuh

EQUIPMENT

1. Electric Heat Pump	#	52593 Btuh
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Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)



Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Lee Holloway

Project Title:
Lot 18 River Rise SD

Lake City, FL

1/13/2025

Reference City: Gainesville, FL (Defaults)
Humidity difference: 54gr.

Temperature Difference: 24.0F(MJ8 99%/Cu)
Summer Setpoint: 75 °F (Required Manual J default)

Component Loads for Whole House

Window	Type*						Overhang		Window Area(sqft)			HTM		Load	
	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	36.0	1.5	34.5	14	33	1151 Btuh	
2	2 NFRC	0.25, 0.36	No	No	W		1.0ft.	3.0ft.	36.0	0.0	36.0	14	33	1179 Btuh	
3	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	37.5	1.2	36.3	14	33	1205 Btuh	
4	2 NFRC	0.25, 0.36	No	No	W		7.5ft.	1.0ft.	57.0	31.3	25.7	14	33	1276 Btuh	
5	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	37.5	1.2	36.3	14	33	1205 Btuh	
6	2 NFRC	0.25, 0.36	No	No	W		1.0ft.	3.0ft.	36.0	0.0	36.0	14	33	1179 Btuh	
7	2 NFRC	0.25, 0.36	No	No	S		1.5ft.	1.0ft.	8.0	8.0	0.0	14	16	111 Btuh	
8	2 NFRC	0.25, 0.36	No	No	E		1.0ft.	3.0ft.	18.0	0.0	18.0	14	33	589 Btuh	
9	2 NFRC	0.25, 0.36	No	No	E		13.5f	1.0ft.	45.0	45.0	0.0	14	33	625 Btuh	
10	2 NFRC	0.25, 0.36	No	No	E		13.5f	1.0ft.	57.0	57.0	0.0	14	33	792 Btuh	
11	2 NFRC	0.25, 0.36	No	No	E		1.5ft.	1.0ft.	30.0	1.2	28.8	14	33	959 Btuh	
12	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	1.0ft.	8.0	0.0	8.0	14	14	111 Btuh	
13	2 NFRC	0.25, 0.36	No	No	E		1.0ft.	2.0ft.	15.0	0.0	15.0	14	33	491 Btuh	
14	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	0.5ft.	30.0	0.0	30.0	14	14	417 Btuh	
	Excursion AE														
	Window Total								451 (sqft)					12281 Btuh	
Walls	Type						U-Value	R-Value	Area(sqft)			HTM		Load	
								Cav/Sheath							
1	Frame - Wood - Ext						0.09	13.0/0.0	97.3			2.7		263 Btuh	
2	Frame - Wood - Ext						0.09	13.0/0.0	60.0			2.7		162 Btuh	
3	Frame - Wood - Ext						0.09	13.0/0.0	120.7			2.7		327 Btuh	
4	Frame - Wood - Ext						0.09	13.0/0.0	40.0			2.7		108 Btuh	
5	Frame - Wood - Ext						0.09	13.0/0.0	96.5			2.7		261 Btuh	
6	Frame - Wood - Ext						0.09	13.0/0.0	75.0			2.7		203 Btuh	
7	Frame - Wood - Ext						0.09	13.0/0.0	96.5			2.7		261 Btuh	
8	Frame - Wood - Ext						0.09	13.0/0.0	30.0			2.7		81 Btuh	
9	Frame - Wood - Ext						0.09	13.0/0.0	120.7			2.7		327 Btuh	
10	Frame - Wood - Ext						0.09	13.0/0.0	398.7			2.7		1079 Btuh	
11	Frame - Wood - Ext						0.09	13.0/0.0	102.0			2.7		276 Btuh	
12	Frame - Wood - Ext						0.09	13.0/0.0	80.0			2.7		217 Btuh	
13	Frame - Wood - Ext						0.09	13.0/0.0	192.0			2.7		520 Btuh	
14	Frame - Wood - Ext						0.09	13.0/0.0	132.0			2.7		357 Btuh	
15	Frame - Wood - Ext						0.09	13.0/0.0	111.2			2.7		301 Btuh	
16	Frame - Wood - Adj						0.09	13.0/0.0	83.3			2.1		178 Btuh	
17	Frame - Wood - Adj						0.09	13.0/0.0	262.7			2.1		560 Btuh	
18	Frame - Wood - Ext						0.09	13.0/0.0	255.3			2.7		691 Btuh	
19	Frame - Wood - Ext						0.09	13.0/0.0	118.7			2.7		321 Btuh	
20	Frame - Wood - Ext						0.09	13.0/0.0	290.7			2.7		787 Btuh	
21	Frame - Wood - Ext						0.09	13.0/0.0	103.7			2.7		281 Btuh	
22	Frame - Wood - Ext						0.09	13.0/0.0	260.7			2.7		706 Btuh	
	Wall Total								3127 (sqft)					8267 Btuh	
Doors	Type								Area (sqft)			HTM		Load	
	1 Insulated - Garage								24.0			16.1		386 Btuh	
	Door Total								24 (sqft)					386 Btuh	
Ceilings	Type/Color/Surface						U-Value	R-Value	Area(sqft)			HTM		Load	
	1 Vented Attic/DarkShingle/RB						0.025	38.0/0.0	2950.0			1.24		3669 Btuh	
	2 Vented Attic/DarkShingle/RB						0.025	38.0/0.0	653.4			1.24		813 Btuh	
	Ceiling Total								3603 (sqft)					4481 Btuh	

Manual J Summer Calculations

Residential Load - Component Details (continued)

Lee Holloway

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Lot 18 River Rise SD

Lake City, FL

1/13/2025

Floors	Type	R-Value	Size	HTM	Load	
1	Slab On Grade	0.0	2682 (ft-perimeter)	0.0	0 Btuh	
2	Raised Wood - Adj	19.0	594 (sqft)	1.0	566 Btuh	
	Floor Total		3276.0 (sqft)		566 Btuh	
	Envelope Subtotal:				25982 Btuh	
Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural	0.23	31572	1	123.1	3235 Btuh
Internal gain		Occupants	Btuh/occupant		Appliance	Load
		10	X 230	+	1800	4100 Btuh
	Sensible Envelope Load:					33317 Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)			(DGM of 0.318)		10610 Btuh
	Sensible Load All Zones					43926 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Lee Holloway
Lake City, FL

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Lot 18 River Rise SD

1/13/2025

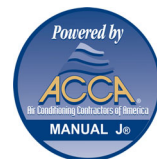
WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	33317 Btuh
	Sensible Duct Load	10610 Btuh
	Total Sensible Zone Loads	43926 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	43926 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	4499 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	2403 Btuh
	Latent occupant gain (10.0 people @ 200 Btuh per person)	2000 Btuh
	Latent other gain	0 Btuh
	Latent total gain	8902 Btuh
	TOTAL GAIN	52829 Btuh

EQUIPMENT

1. Central Unit	#	48310 Btuh
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*Key: Window types (Panels - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Ornt - compass orientation)



Version 8