

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Lot 6 Amelia Landing
 Street:
 City, State, Zip: Lake City, FL, 32025
 Owner: N/A
 Design Location: FL, Gainesville

Builder Name: PFS Solutions
 Permit Office: Columbia County
 Permit Number:
 Jurisdiction:
 County: Columbia (Florida Climate Zone 2)

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	3
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	1638
Conditioned floor area below grade (ft²)	0
7. Windows (274.0 sqft.)	Description Area
a. U-Factor:	Dbl, U=0.36 274.00 ft²
SHGC:	SHGC=0.25
b. U-Factor:	N/A ft²
SHGC:	
c. U-Factor:	N/A ft²
SHGC:	
Area Weighted Average Overhang Depth:	6.120 ft.
Area Weighted Average SHGC:	0.250
8. Skylights	Area
c. U-Factor:(AVG)	N/A ft²
SHGC(AVG):	N/A
9. Floor Types (1638.0 sqft.)	Insulation Area
a. Slab-On-Grade Edge Insulation	R=0.0 1638.00 ft²
b. N/A	R= ft²
c. N/A	R= ft²

10. Wall Types(1813.7 sqft.)	Insulation Area
a. Frame - Wood, Exterior	R=13.0 1576.70 ft²
b. Frame - Wood, Adjacent	R=13.0 237.00 ft²
c. N/A	R= ft²
d. N/A	R= ft²
11. Ceiling Types (1720.0 sqft.)	Insulation Area
a. Under Attic (Vented)	R=38.0 1720.00 ft²
b. N/A	R= ft²
c. N/A	R= ft²
12. Ducts	R ft²
a. Sup: Attic, Ret: Attic, AH: Garage	6 409.5
13. Cooling systems	kBtu/hr Efficiency
a. Central Unit	21.4 SEER:14.00
14. Heating systems	kBtu/hr Efficiency
a. Electric Heat Pump	27.9 HSPF:8.20
15. Hot water systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	
None	
16. Credits	CV, Pstat

Glass/Floor Area: 0.167

Total Proposed Modified Loads: 44.78

Total Baseline Loads: 45.71

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____

DATE: _____

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: _____

- 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.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Lot 6 Amelia Landing	Bedrooms:	3	Address Type:	Lot Information
Building Type:	User	Conditioned Area:	1638	Lot #	6
Owner Name:	N/A	Total Stories:	1	Block/Subdivision:	Amelia Landing
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	PFS Solutions	Rotate Angle:	0	Street:	
Permit Office:	Columbia County	Cross Ventilation:	Yes	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32025
Family Type:	Detached				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	Design Temp		Int Design Temp		Heating	Design	Daily Temp
			97.5 %	2.5 %	Winter	Summer	Degree Days	Moisture	Range
_____	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1638	14742

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1638	14742	Yes	6	3	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulation	Main	203 ft	0	1638 ft²	----	0	0	1

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Gable or shed	Composition shingles	1969 ft²	546 ft²	Medium	Y	0.96	No	0.9	No	0	33.69

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1638 ft²	Y	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	38	Double Batt	1720 ft²	0.11	Wood

INPUT SUMMARY CHECKLIST REPORT

WALLS

✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
___ 1	E	Exterior	Frame - Wood	Main	13	30		10		300.0 ft²		0.23	0.75	0
___ 2	N	Exterior	Frame - Wood	Main	13	4	8	10		46.7 ft²		0.23	0.75	0
___ 3	E	Exterior	Frame - Wood	Main	13	9		9		81.0 ft²		0.23	0.75	0
___ 4	N	Garage	Frame - Wood	Main	13	5	4	9		48.0 ft²		0.23	0.75	0
___ 5	E	Garage	Frame - Wood	Main	13	21		9		189.0 ft²		0.23	0.75	0
___ 6	N	Exterior	Frame - Wood	Main	13	23	4	9		210.0 ft²		0.23	0.75	0
___ 7	W	Exterior	Frame - Wood	Main	13	21	4	9		192.0 ft²		0.23	0.75	0
___ 8	S	Exterior	Frame - Wood	Main	13	2	8	9		24.0 ft²		0.23	0.75	0
___ 9	W	Exterior	Frame - Wood	Main	13	10	8	9		96.0 ft²		0.23	0.75	0
___ 10	S	Exterior	Frame - Wood	Main	13	2	4	9		21.0 ft²		0.23	0.75	0
___ 11	W	Exterior	Frame - Wood	Main	13	16	4	9		147.0 ft²		0.23	0.75	0
___ 12	N	Exterior	Frame - Wood	Main	13	5	4	9		48.0 ft²		0.23	0.75	0
___ 13	W	Exterior	Frame - Wood	Main	13	12		9		108.0 ft²		0.23	0.75	0
___ 14	S	Exterior	Frame - Wood	Main	13	33	8	9		303.0 ft²		0.23	0.75	0

DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
___ 1	E	Insulated	Main	None	.46	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
___ 1	E	1	Vinyl	Low-E Double	Yes	0.36	0.25	N	72.0 ft²	6 ft 0 in	1 ft 0 in	None	None
___ 2	E	1	TIM	Low-E Double	Yes	0.36	0.25	N	24.0 ft²	6 ft 0 in	1 ft 0 in	None	None
___ 3	E	3	Vinyl	Low-E Double	Yes	0.36	0.25	N	12.0 ft²	1 ft 6 in	1 ft 0 in	None	None
___ 4	N	6	Vinyl	Low-E Double	Yes	0.36	0.25	N	6.0 ft²	1 ft 6 in	1 ft 0 in	None	None
___ 5	W	7	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 6 in	1 ft 0 in	None	None
___ 6	W	9	Vinyl	Low-E Double	Yes	0.36	0.25	N	27.0 ft²	7 ft 6 in	1 ft 0 in	None	None
___ 7	W	11	TIM	Low-E Double	Yes	0.36	0.25	N	48.0 ft²	9 ft 6 in	1 ft 0 in	None	None
___ 8	W	11	Vinyl	Low-E Double	Yes	0.36	0.25	N	36.0 ft²	9 ft 6 in	1 ft 0 in	None	None
___ 9	W	13	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 6 in	1 ft 0 in	None	None
___ 10	S	14	Vinyl	Low-E Double	Yes	0.36	0.25	N	4.0 ft²	1 ft 6 in	1 ft 0 in	None	None

GARAGE

✓ #	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
___ 1	454.9689 ft²	454.9689 ft²	58.66 ft	9 ft	1

INPUT SUMMARY CHECKLIST REPORT

INFILTRATION												
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50				
1	Wholehouse	Proposed ACH(50)	.000286	1228.5	67.4	126.53	.1027	5				

HEATING SYSTEM										
✓	#	System Type	Subtype	Speed	Efficiency	Capacity	Block		Ducts	
✓	1	Electric Heat Pump/	None	Single	HSPF:8.2	27.93 kBtu/hr	1		sys#1	

COOLING SYSTEM										
✓	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit/	None	Single	SEER: 14	21.39 kBtu/hr	630 cfm	0.7	1	sys#1

HOT WATER SYSTEM									
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	None	Garage	0.92	50 gal	40 gal	120 deg	None

SOLAR HOT WATER SYSTEM							
✓	FSEC Cert #	Company Name	System Model#	Collector Model#	Collector Area	Storage Volume	FEF
✓	None	None				ft²	

DUCTS														
✓	#	---- Supply ----			---- Return ----		Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area							Heat	Cool
✓	1	Attic	6	409.5 ft²	Attic	81.9 ft²	Default Leakage	Garage	(Default)	c(Defaul)	c		1	1

TEMPERATURES																								
Programable Thermostat: Y				Ceiling Fans:																				
Cooling	☐	Jan	☐	Feb	☐	Mar	☐	Apr	☐	May	☒	Jun	☒	Jul	☒	Aug	☒	Sep	☐	Oct	☐	Nov	☐	Dec
Heating	☒	Jan	☒	Feb	☒	Mar	☒	Apr	☒	May	☐	Jun	☐	Jul	☐	Aug	☐	Sep	☐	Oct	☒	Nov	☒	Dec
Venting	☐	Jan	☐	Feb	☒	Mar	☒	Apr	☒	May	☐	Jun	☐	Jul	☐	Aug	☐	Sep	☐	Oct	☒	Nov	☒	Dec

INPUT SUMMARY CHECKLIST REPORT

Thermostat Schedule: HERS 2006 Reference		Hours											
Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
MASS													
Mass Type		Area		Thickness		Furniture Fraction		Space					
Default(8 lbs/sq.ft.)		0 ft²		0 ft		0.3		Main					

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 98

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

, Lake City, FL, 32025

1. New construction or existing	New (From Plans)	10. Wall Type and Insulation	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=13.0	1576.70 ft²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	237.00 ft²
4. Number of Bedrooms	3	c. N/A	R=	ft²
5. Is this a worst case?	No	d. N/A	R=	ft²
6. Conditioned floor area (ft²)	1638	11. Ceiling Type and insulation level	Insulation	Area
7. Windows**	Description	a. Under Attic (Vented)	R=38.0	1720.00 ft²
a. U-Factor:	Dbl, U=0.36	b. N/A	R=	ft²
SHGC:	SHGC=0.25	c. N/A	R=	ft²
b. U-Factor:	N/A	12. Ducts, location & insulation level	R	ft²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	6	409.5
c. U-Factor:	N/A	13. Cooling systems	kBtu/hr	Efficiency
SHGC:		a. Central Unit	21.4	SEER:14.00
d. U-Factor:	N/A	14. Heating systems	kBtu/hr	Efficiency
SHGC:		a. Electric Heat Pump	27.9	HSPF:8.20
Area Weighted Average Overhang Depth:	6.120 ft.	15. Hot water systems		
Area Weighted Average SHGC:	0.250	a. Electric	Cap: 50 gallons	
8. Skylights	Description		EF: 0.92	
a. U-Factor(AVG):	N/A	b. Conservation features		
SHGC(AVG):	N/A	None		
9. Floor Types	Insulation	Credits (Performance method)	CV, Pstat	
a. Slab-On-Grade Edge Insulation	R=0.0			
b. N/A	R=			
c. N/A	R=			

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: _____



*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

2020 Florida Building Code, Energy Conservation, 7th Edition

Jurisdiction:	Permit #:
Job Information	
Builder: PFS Solutions	Community: Lot: 6
Address:	
City: Lake City	State: FL Zip: 32025
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 R405-2020 (Performance) or R406-2020 (ERI), section labeled as infiltration, sub-section ACH50. ACH(50) specified on Form R405-2020-Energy Calc (Performance) or R406-2020 (ERI): 5.000	
$\frac{\text{CFM}(50) \times 60}{\text{Building Volume}} = \text{ACH}(50)$ PASS ☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department. Method for calculating building volume: ☐ Retrieved from architectural plans ☒ Code software calculated ☐ Field measured and calculated	
R402.4.1.2 Testing. 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 <i>(7th 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 <i>code official</i>. Testing shall be performed at any time after creation of all penetrations of the <i>building thermal envelope</i>. During testing: 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures. 2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures. 3. Interior doors, if installed at the time of the test, shall be open. 4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed. 5. Heating and cooling systems, if installed at the time of the test, shall be turned off. 6. Supply and return registers, if installed at the time of the test, shall be fully open.	
Testing Company	
Company Name: _____ Phone: _____ I hereby verify that the above Air Leakage results are in accordance with the 2020 7th 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

N/A

Project Title:
Lot 6 Amelia Landing

Lake City, FL 32025

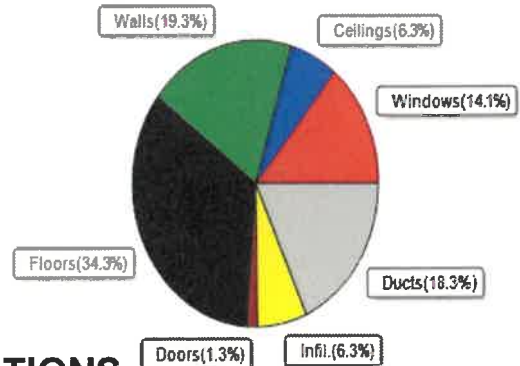
4/8/2021

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature(TMY3 99%) 30 F			Summer design temperature(TMY3 99%) 94 F		
Winter setpoint 70 F			Summer setpoint 75 F		
Winter temperature difference 40 F			Summer temperature difference 19 F		
Total heating load calculation 27927 Btuh			Total cooling load calculation 22686 Btuh		
Submitted heating capacity % of calc Btuh			Submitted cooling capacity % of calc Btuh		
Total (Electric Heat Pump) 100.0 27927			Sensible (SHR = 0.70) 77.9 14971		
Heat Pump + Auxiliary(0.0kW) 100.0 27927			Latent 184.7 6416		
			Total (Electric Heat Pump) 94.3 21387		

WINTER CALCULATIONS

Winter Heating Load (for 1638 sqft)

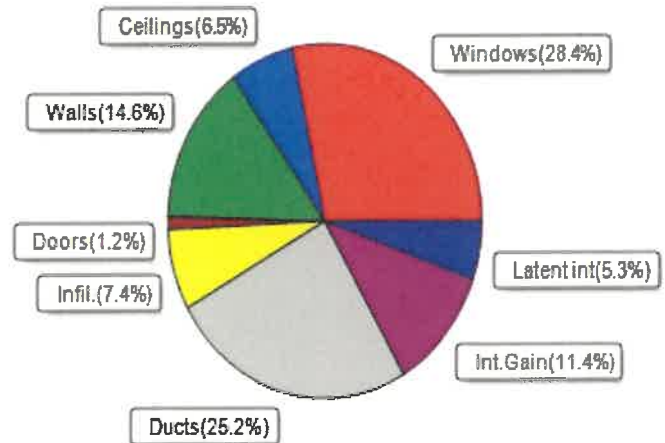
Load component		Load	
Window total	274 sqft	3946	Btuh
Wall total	1520 sqft	5395	Btuh
Door total	20 sqft	368	Btuh
Ceiling total	1720 sqft	1746	Btuh
Floor total	1638 sqft	9582	Btuh
Infiltration	40 cfm	1768	Btuh
Duct loss		5122	Btuh
Subtotal		27927	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		27927	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1638 sqft)

Load component		Load	
Window total	274 sqft	6438	Btuh
Wall total	1520 sqft	3314	Btuh
Door total	20 sqft	276	Btuh
Ceiling total	1720 sqft	1484	Btuh
Floor total		0	Btuh
Infiltration	30 cfm	630	Btuh
Internal gain		2580	Btuh
Duct gain		4489	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		19212	Btuh
Latent gain(ducts)		1229	Btuh
Latent gain(infiltration)		1045	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		1200	Btuh
Total latent gain		3474	Btuh
TOTAL HEAT GAIN		22686	Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY:

DATE:

4/8/2021

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

N/A

Lake City, FL 32025

Project Title:
Lot 6 Amelia Landing
Building Type: User

4/8/2021

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 F (TMY3 99%)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	2, NFRC 0.25	Vinyl	0.36	E	72.0		14.4	1037 Btuh
2	2, NFRC 0.25	TIM	0.36	E	24.0		14.4	346 Btuh
3	2, NFRC 0.25	Vinyl	0.36	E	12.0		14.4	173 Btuh
4	2, NFRC 0.25	Vinyl	0.36	N	6.0		14.4	86 Btuh
5	2, NFRC 0.25	Vinyl	0.36	W	30.0		14.4	432 Btuh
6	2, NFRC 0.25	Vinyl	0.36	W	27.0		14.4	389 Btuh
7	2, NFRC 0.25	TIM	0.36	W	48.0		14.4	691 Btuh
8	2, NFRC 0.25	Vinyl	0.36	W	36.0		14.4	518 Btuh
9	2, NFRC 0.25	Vinyl	0.36	W	15.0		14.4	216 Btuh
10	2, NFRC 0.25	Vinyl	0.36	S	4.0		14.4	58 Btuh
Window Total					274.0(sqft)			3946 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	204		3.55	724 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	47		3.55	166 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	69		3.55	245 Btuh
4	Frame - Wood	- Adj	(0.089)	13.0/0.0	48		3.55	170 Btuh
5	Frame - Wood	- Adj	(0.089)	13.0/0.0	169		3.55	600 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	204		3.55	724 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	162		3.55	575 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	24		3.55	85 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	69		3.55	245 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	21		3.55	75 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	63		3.55	224 Btuh
12	Frame - Wood	- Ext	(0.089)	13.0/0.0	48		3.55	170 Btuh
13	Frame - Wood	- Ext	(0.089)	13.0/0.0	93		3.55	330 Btuh
14	Frame - Wood	- Ext	(0.089)	13.0/0.0	299		3.55	1062 Btuh
Wall Total					1520(sqft)			5395 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Garage, n		(0.460)		20		18.4	368 Btuh
Door Total					20(sqft)			368Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Vented Attic/L/Shing		(0.025)	38.0/0.0	1720		1.0	1746 Btuh
Ceiling Total					1720(sqft)			1746Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
1	Slab On Grade		(1.180)	0.0	203.0 ft(perim.)		47.2	9582 Btuh
Floor Total					1638 sqft			9582 Btuh
Envelope Subtotal:								21037 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=		
	Natural		0.16	14742	1.00	40.4		1768 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

N/A

Lake City, FL 32025

Project Title:
Lot 6 Amelia Landing
Building Type: User

4/8/2021

Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.225)	5122 Btuh
All Zones	Sensible Subtotal All Zones	27927 Btuh

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	27927 Btuh 0 Btuh 27927 Btuh
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EQUIPMENT

1. Electric Heat Pump	#	27927 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

N/A

Project Title:
Lot 6 Amelia Landing

Lake City, FL 32025

4/8/2021

Reference City: Gainesville, FL

Temperature Difference: 19.0F(TMY3 99%) Humidity difference: 51gr.

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	E		6.0ft.	1.0ft.	72.0	47.8	24.2	12	31	1328 Btuh
2	2 NFRC	0.25, 0.36	No	No	E		6.0ft.	1.0ft.	24.0	11.9	12.1	12	31	518 Btuh
3	2 NFRC	0.25, 0.36	No	No	E		1.5ft.	1.0ft.	12.0	1.0	11.0	12	31	353 Btuh
4	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	1.0ft.	6.0	0.0	6.0	12	12	73 Btuh
5	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	30.0	1.5	28.5	12	31	901 Btuh
6	2 NFRC	0.25, 0.36	No	No	W		7.5ft.	1.0ft.	27.0	27.0	0.0	12	31	327 Btuh
7	2 NFRC	0.25, 0.36	No	No	W		9.5ft.	1.0ft.	48.0	41.3	6.7	12	31	707 Btuh
8	2 NFRC	0.25, 0.36	No	No	W		9.5ft.	1.0ft.	36.0	36.0	0.0	12	31	436 Btuh
9	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	15.0	0.7	14.3	12	31	450 Btuh
10	2 NFRC	0.25, 0.36	No	No	S		1.5ft.	1.0ft.	4.0	4.0	0.0	12	14	48 Btuh
	Excursion												1299 Btuh	
	Window Total									274 (sqft)			6438 Btuh	
Walls	Type	U-Value		R-Value		Area(sqft)		HTM		Load				
1	Frame - Wood - Ext	0.09	13.0/0.0	204.0	2.3	462 Btuh								
2	Frame - Wood - Ext	0.09	13.0/0.0	46.7	2.3	106 Btuh								
3	Frame - Wood - Ext	0.09	13.0/0.0	69.0	2.3	156 Btuh								
4	Frame - Wood - Adj	0.09	13.0/0.0	48.0	1.7	81 Btuh								
5	Frame - Wood - Adj	0.09	13.0/0.0	169.0	1.7	285 Btuh								
6	Frame - Wood - Ext	0.09	13.0/0.0	204.0	2.3	462 Btuh								
7	Frame - Wood - Ext	0.09	13.0/0.0	162.0	2.3	367 Btuh								
8	Frame - Wood - Ext	0.09	13.0/0.0	24.0	2.3	54 Btuh								
9	Frame - Wood - Ext	0.09	13.0/0.0	69.0	2.3	156 Btuh								
10	Frame - Wood - Ext	0.09	13.0/0.0	21.0	2.3	48 Btuh								
11	Frame - Wood - Ext	0.09	13.0/0.0	63.0	2.3	143 Btuh								
12	Frame - Wood - Ext	0.09	13.0/0.0	48.0	2.3	109 Btuh								
13	Frame - Wood - Ext	0.09	13.0/0.0	93.0	2.3	210 Btuh								
14	Frame - Wood - Ext	0.09	13.0/0.0	299.0	2.3	677 Btuh								
	Wall Total				1520 (sqft)		3314 Btuh							
Doors	Type	Area (sqft)		HTM		Load								
1	Insulated - Garage	20.0		13.8		276 Btuh								
	Door Total				20 (sqft)		276 Btuh							
Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load								
1	Vented Attic/Light/Shingle/RB	0.025	38.0/0.0	1720.0	0.86	1484 Btuh								
	Ceiling Total				1720 (sqft)		1484 Btuh							
Floors	Type	R-Value		Size		HTM		Load						
1	Slab On Grade	0.0		1638 (ft-perimeter)		0.0		0 Btuh						
	Floor Total				1638.0 (sqft)		0 Btuh							
	Envelope Subtotal:							11513 Btuh						

Manual J Summer Calculations

Residential Load - Component Details (continued)

N/A

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Lot 6 Amelia Landing

Lake City, FL 32025

4/8/2021

Infiltration	Type Natural	Average ACH 0.12	Volume(cuft) 14742	Wall Ratio 1	CFM= 30.3	Load 630 Btuh
Internal gain		Occupants 6	Btuh/occupant X 230	Appliance +	1200	Load 2580 Btuh
	Sensible Envelope Load:					14723 Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic) (DGM of 0.305)					4489 Btuh
	Sensible Load All Zones					19212 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

N/A

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Lot 6 Amelia Landing

Lake City, FL 32025

4/8/2021

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	14723 Btuh
	Sensible Duct Load	4489 Btuh
	Total Sensible Zone Loads	19212 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	19212 Btuh
	Latent infiltration gain (for 51 gr. humidity difference)	1045 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1229 Btuh
	Latent occupant gain (6.0 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	3474 Btuh
	TOTAL GAIN	22686 Btuh

EQUIPMENT

1. Central Unit	#	21387 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