

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Stephen Seraballs Street: SW Dawn Lane City, State, Zip: Lake City, FL, 32024 Owner: Stephen Seraballs 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 1 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 1950 Conditioned floor area below grade (ft²) 0 7. Windows(112.0 sqft.) Description Area a. U-Factor: Dbl, U=0.36 112.00 ft² SHGC: SHGC=0.25 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 1.000 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 1950.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types(2280.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=19.0 2280.00 ft² b. N/A c. N/A d. N/A 11. Ceiling Types(2047.0 sqft.) Insulation Area a. Flat ceiling under att (Vented) R=38.0 2047.00 ft² b. N/A c. N/A 12. Roof(Metal, Vented) Deck R=0.0 2010 ft² 13. Ducts, location & insulation level R ft² a. b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 18.0 SEER:14.00 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 23.1 HSPF:8.20 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:0.057	Total Proposed Modified Loads: 36.46	PASS
	Total Baseline Loads: 46.52	

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>01 / 23 / 2023</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.
- Proposed Qn of NAN exceeds the performance method default limit of 0.08 and therefore does not require duct testing. R405 .2.3
- 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 5.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title:	Stephen Seraballs			Bedrooms:	1		Address type:	Street Address					
Building Type:	User			Conditioned Area:	1950		Lot #:	---					
Owner:	Stephen Seraballs			Total Stories:	1		Block/SubDivision:	---					
Builder Name:				Worst Case:	No		PlatBook:	---					
Permit Office:	Columbia County			Rotate Angle:	0		Street:	SW Dawn Lane					
Jurisdiction:				Cross Ventilation:	Yes		County:	Columbia					
Family Type:	Detached			Whole House Fan:	No		City, State, Zip:	Lake City, FL, 32024					
New/Existing:	New (From Plans)			Terrain:	Suburban								
Year Construct:	2023			Shielding:	Suburban								
Comment:													
CLIMATE													
✓ Design Location	Tmy Site			Design Temp		Int Design Temp		Heating Degree Days		Design Moisture		Daily temp Range	
				97.5%	2.5%	Winter	Summer						
___ FL, Gainesville	FL_GAINESVILLE_REGIONA			32	92	70	75	1305.5	51	Medium			
BLOCKS													
✓ Number	Name		Area	Volume									
___ 1	Block1		1950	23400 cu ft									
SPACES													
✓ Number	Name		Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated			
___ 1	Main		1950	23400	Yes	10	1	Yes	Yes	Yes			
FLOORS (Total Exposed Area = 1950 sq.ft.)													
✓ #	Floor Type		Space	Exposed Perim	Perimeter R-Value	Area	U-Factor	Joist R-Value	Tile	Wood	Carpet		
___ 1	Slab-On-Grade Edge Ins		Main	190	0	1950 ft	0.304	---	0.00	0.00	1.00		
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		Metal	2010 ft²	136 ft²	Medium	Y	0.96	No	0.9	No	0	14.04
ATTIC													
✓ #	Type		Ventilation	Vent Ratio (1 in)		Area	RBS	IRCC					
___ 1	Partial cathedral ceiling		Vented	300		1950 ft²	Y	N					
CEILING (Total Exposed Area = 2047 sq.ft.)													
✓ #	Ceiling Type		Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.		Truss Type			
___ 1	Flat ceiling under attic(Vented)		Main	38.0	Double Batt	2047.0ft²	0.024	0.11		Wood			

INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 2280 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	S	Exterior	Frame - Wood	Main	19.0	65.0	0	12.0	0	780.0	0.061		0.23	0.75	0 %	
___ 2	E	Exterior	Frame - Wood	Main	19.0	30.0	0	12.0	0	360.0	0.061		0.23	0.75	0 %	
___ 3	N	Exterior	Frame - Wood	Main	19.0	65.0	0	12.0	0	780.0	0.061		0.23	0.75	0 %	
___ 4	W	Exterior	Frame - Wood	Main	19.0	30.0	0	12.0	0	360.0	0.061		0.23	0.75	0 %	

DOORS (Total Exposed Area = 40 sq.ft.)												
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area	
___ 1	S	Exterior	Insulated	Main	None	0.46	3.00	0	6.00	8	20.0ft²	
___ 2	N	Exterior	Insulated	Main	None	0.46	3.00	0	6.00	8	20.0ft²	

WINDOWS (Total Exposed Area = 112 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	S	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	24.0	4	2.00	3.00	1.0	4.0	None	None
___ 2	E	2	Vinyl	Low-E Double	Y	0.36	0.25	N	N	12.0	2	2.00	3.00	1.0	5.0	None	None
___ 3	E	2	TIM	Low-E Double	Y	0.36	0.25	N	N	40.0	1	6.00	6.67	1.0	5.0	None	None
___ 4	N	3	Vinyl	Low-E Double	Y	0.36	0.25	N	N	24.0	4	2.00	3.00	1.0	4.0	None	None
___ 5	W	4	Vinyl	Low-E Double	Y	0.36	0.25	N	N	12.0	2	2.00	3.00	1.0	4.0	None	None

INFILTRATION										
✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00038	1950	106.98	200.85	0.1152	5.0	All	23400 cu ft

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

HEATING SYSTEM										
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump---- Entry Power Volt	Current	Ducts	Block	
___ 1	Electric Heat Pump	None/Single		HSPF: 8.20	23.1	0.00	0.00	0.00	sys#0 1	

COOLING SYSTEM									
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___ 1	Central Unit	None/Single		SEER:14.0	18.0	540	0.70	Ductless	1

INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Electric	None	Main	0.92 (0.92)	50.00 gal	40 gal	120 deg	Standard	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 #	-----Supply----- Location	R-Value	Area	-----Return----- Location	R-Value	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC # Heat Cool
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TEMPERATURES

Programable Thermostat: Y					Ceiling Fans: N								
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	

✓	Thermostat Schedule: HERS 2006 Reference													
	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* = 78

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

SW Dawn Lane,Lake City,FL,32024

1. New construction or existing	New (From Plans)	10. Wall Types(2280.0 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=19.0	2280.00 ft ²
3. Number of units, if multiple family	1	b. N/A		
4. Number of Bedrooms	1	c. N/A		
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	1950	11. Ceiling Types(2047.0 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0	2047.00 ft ²
7. Windows**	Description	b. N/A		
a. U-Factor:	Dbl, U=0.36	c. N/A		
SHGC:	SHGC=0.25	12. Roof(Metal, Vented)	Deck R=0.0	2010 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a.		
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth:	1.000 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.250	a. Central Unit	18.0	SEER:14.00
8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	23.1	HSPF:8.20
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. N/A	R=		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: SW Dawn Lane

City/FL Zip: Lake City,FL,32024



*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:	Community:	Lot: NA
Address: SW Dawn Lane		
City: Lake City	State: FL	Zip: 32024
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>(7) 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: _____		