

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Futral Residence Street: City, State, Zip: , FL, Owner: Design Location: FL, Gainesville	Builder Name: Permit Office: 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 3 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 1305 Conditioned floor area below grade (ft²) 0 7. Windows(211.0 sqft.) Description Area a. U-Factor: Dbl, U=0.26 211.00 ft² SHGC: SHGC=0.20 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 1.500 ft Area Weighted Average SHGC: 0.200 8. Skylights Description Area U-Factor:(AVG) N/A N/A ft² SHGC(AVG): N/A 9. Floor Types Insulation Area a. Raised Floor R= 19.0 1305.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types(1327.5 sqft.) Insulation Area a. Frame - Wood, Exterior R=19.0 1327.50 ft² b. N/A c. N/A d. N/A 11. Ceiling Types(1305.0 sqft.) Insulation Area a. Flat ceiling under att (Unvented) R=30.0 1305.00 ft² b. N/A c. N/A 12. Roof(Metal, Vented) Deck R=0.0 1333 ft² 13. Ducts, location & insulation level R ft² a. Sup: Attic, Ret: Attic, AH: Main 6 261 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 30.0 SEER:15.00 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 30.0 HSPF:8.50 16. Hot Water Systems a. Electric Cap: 50 gallons EF: 0.920 b. Conservation features None 17. Credits CF, Pstat
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Glass/Floor Area: 0.162	Total Proposed Modified Loads: 46.66	PASS
	Total Baseline Loads: 49.11	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY:  DATE: 12-6-22 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 5.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title:	Futral Residence				Address type:		Street Address						
Building Type:	User				Bedrooms:	3	Lot #:	---					
Owner:					Conditioned Area:	1305	Block/SubDivision:	---					
					Total Stories:	1	PlatBook:	---					
Builder Name:					Worst Case:	No	Street:						
Permit Office:					Rotate Angle:	0	County:	Columbia					
Jurisdiction:					Cross Ventilation:		City, State, Zip:	, FL,					
Family Type:	Detached				Whole House Fan:								
New/Existing:	New (From Plans)				Terrain:	Rural							
Year Construct:	2022				Shielding:	Moderate/Rural							
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_REGIONA		32	92	70	75	1305.5		51		Medium		
BLOCKS													
✓ Number	Name	Area	Volume										
___ 1	Block1	1305	11745 cu ft										
SPACES													
✓ Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated				
___ 1	Main	1305	11745	Yes	6	3	Yes	Yes	Yes				
FLOORS (Total Exposed Area = 1305 sq.ft.)													
✓ #	Floor Type	Space	Exposed Perim	Perimeter R-Value		Area	U-Factor	Joist R-Value	Tile	Wood	Carpet		
___ 1	Raised Floor	Main	---	---		1305 ft	0.052	19	0.20	0.60	0.20		
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	1333 ft²	136 ft²	Light	N	0.6	No	0.9	No	0	11.77	
ATTIC													
✓ #	Type	Ventilation	Vent Ratio (1 in)		Area	RBS	IRCC						
___ 1	Full attic	Vented	300		1305 ft²	N	N						
CEILING (Total Exposed Area = 1305 sq.ft.)													
✓ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type					
___ 1	Flat ceiling under attic(Vented)	Main	30.0	Blown	1305.0ft²	0.053	0.11	Wood					

INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 1328 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	Main	19.0	29.0	6	9.0	0	265.5	0.067	0.625	0.23	0.75	0 %	
___ 2	N	Exterior	Frame - Wood	Main	19.0	44.0	3	9.0	0	398.3	0.067	0.625	0.23	0.75	0 %	
___ 3	E	Exterior	Frame - Wood	Main	19.0	29.0	6	9.0	0	265.5	0.067	0.625	0.23	0.75	0 %	
___ 4	S	Exterior	Frame - Wood	Main	19.0	44.0	3	9.0	0	398.3	0.067	0.625	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	Exterior	Insulated	Main	None	0.40	3.00	0	8.00	0	24.0ft²

WINDOWS (Total Exposed Area = 211 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	0.26	0.20	N	N	60.0	4	3.00	5.00	1.5	2.3	None	None
___ 2	N	2	Vinyl	Low-E Double	Y	0.26	0.20	N	N	6.0	1	2.00	3.00	1.5	2.3	None	None
___ 3	N	2	Vinyl	Low-E Double	Y	0.26	0.20	N	N	3.0	1	3.00	1.00	1.5	2.3	None	None
___ 4	N	2	Vinyl	Low-E Double	Y	0.26	0.20	N	N	16.0	2	2.00	4.00	1.5	2.3	None	None
___ 5	E	3	Vinyl	Low-E Double	Y	0.26	0.20	N	N	96.0	4	4.00	6.00	1.5	2.3	None	None
___ 6	S	4	Vinyl	Low-E Double	Y	0.26	0.20	N	N	30.0	2	3.00	5.00	1.5	2.3	None	None

INFILTRATION										
✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00029	979	53.70	100.81	0.1027	5.0	All	11745 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: 8.50	30.0		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		SEER:15.0	30.0	900	0.85	sys#1	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	60 gal	120 deg	Standard	None	99
	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 R-Value	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC # Heat	Cool
___ 1	Attic	6.0	261 ft²	Attic	6.0	65 ft²	Default Leakage	Main	(Default)	(Default)		1	1

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	Hours 7	8	9	10	11	12
___ Cooling (WD)	AM PM	78 80	78 80	78 80	78 80	78 80	78 80	78 80	78 80	80 78	80 78	80 78	80 78
___ Cooling (WEH)	AM PM	78 80	78 80	78 80	78 80	78 80	78 80	78 80	78 80	80 78	80 78	80 78	80 78
___ Heating (WD)	AM PM	65 68	65 68	65 68	65 68	65 68	65 68	65 68	68 68	68 68	68 68	68 68	68 68
___ Heating (WEH)	AM PM	65 68	65 68	65 68	65 68	65 68	65 68	65 68	68 68	68 68	68 68	68 68	68 68