

**FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION**

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Wayne Green  
 Street: 533 SW Homestead Circle  
 City, State, Zip: Ft White, FL, 32038  
 Owner:  
 Design Location: FL, Gainesville

Builder Name:  
 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	2	
5. Is this a worst case?	No	
6. Conditioned floor area above grade (ft <sup>2</sup> )	800	
Conditioned floor area below grade (ft <sup>2</sup> )	0	
7. Windows (84.0 sqft.)	Description	Area
a. U-Factor:	DbI, U=0.36	84.00 ft <sup>2</sup>
SHGC:	SHGC=0.25	
b. U-Factor:	N/A	ft <sup>2</sup>
SHGC:		
c. U-Factor:	N/A	ft <sup>2</sup>
SHGC:		
Area Weighted Average Overhang Depth:		4.089 ft.
Area Weighted Average SHGC:		0.250
8. Skylights	Area	
c. U-Factor:(AVG)	N/A	ft <sup>2</sup>
SHGC(AVG):	N/A	
9. Floor Types (800.0 sqft.)	Insulation	Area
a. Raised Floor	R=19.0	480.00 ft <sup>2</sup>
b. Floor Over Other Space	R=19.0	320.00 ft <sup>2</sup>
c. N/A	R=	ft <sup>2</sup>

10. Wall Types (1296.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1296.00 ft <sup>2</sup>
b. N/A	R=	ft <sup>2</sup>
c. N/A	R=	ft <sup>2</sup>
d. N/A	R=	ft <sup>2</sup>
11. Ceiling Types (480.0 sqft.)	Insulation	Area
a. Roof Deck (Unvented)	R=30.0	480.00 ft <sup>2</sup>
b. N/A	R=	ft <sup>2</sup>
c. N/A	R=	ft <sup>2</sup>
12. Ducts	R	ft <sup>2</sup>
13. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	26.7	SEER:14.00
14. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	27.2	HSPF:8.20
15. Hot water systems		
a. Propane	Tankless	Cap: 1 gallons
		EF: 0.590
b. Conservation features		
None		
16. Credits		CV, Pstat



Glass/Floor Area: 0.105

Total Proposed Modified Loads: 23.47

Total Baseline Loads: 32.07

**PASS**

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

PREPARED BY: [Signature]  
 DATE: 1/13/2022

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).
- Proposed Qn of NAN exceeds the performance method default limit of 0.08 and therefore does not require duct testing. R405.2.3

## INPUT SUMMARY CHECKLIST REPORT

## PROJECT

Title:	Wayne Green	Bedrooms:	2	Address Type:	Street Address
Building Type:	User	Conditioned Area:	800	Lot #	
Owner Name:		Total Stories:	2	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	533 SW Homestead Circ
Permit Office:	Columbia County	Cross Ventilation:	Yes	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Ft White , FL , 32038
Family Type:	Detached				
New/Existing:	New (From Plans)				
Comment:					

## CLIMATE

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

## BLOCKS

Number	Name	Area	Volume
1	Block1	800	6080

## SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	1st Floor	480	3840	Yes	2	0	1	Yes	Yes	Yes
2	2nd Floor	320	2240	No	3	2	1	Yes	Yes	Yes

## FLOORS

✓	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Raised Floor	1st Floor	----	----	480 ft²	19	0	0	1
_____	2	Floor Over Other Space	2nd Floor	----	----	320 ft²	19	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	Metal	679 ft²	240 ft²	Medium	N	0.96	No	0.9	No	30	45

## ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Unvented	0	480 ft²	N	N

## INPUT SUMMARY CHECKLIST REPORT

CEILING													
✓	#	Ceiling Type		Space	R-Value	Ins Type		Area	Framing Frac	Truss Type			
✓	1	Under Attic (Unvented)		2nd Floor	38	Double Batt		480 ft²	0.11	Wood			

  

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	S	Exterior	Frame - Wood	1st Floor	13	30		8		240.0 ft²		0.23	0.75	0
✓	2	E	Exterior	Frame - Wood	1st Floor	13	16		8		128.0 ft²		0.23	0.75	0
✓	3	N	Exterior	Frame - Wood	1st Floor	13	30		8		240.0 ft²		0.23	0.75	0
✓	4	W	Exterior	Frame - Wood	1st Floor	13	16		8		128.0 ft²		0.23	0.75	0
✓	5	S	Exterior	Frame - Wood	2nd Floor	13	30		7		210.0 ft²		0.23	0.75	0
✓	6	E	Exterior	Frame - Wood	2nd Floor	13	10		7		70.0 ft²		0.23	0.75	0
✓	7	N	Exterior	Frame - Wood	2nd Floor	13	30		7		210.0 ft²		0.23	0.75	0
✓	8	W	Exterior	Frame - Wood	2nd Floor	13	10		7		70.0 ft²		0.23	0.75	0

  

DOORS													
✓	#	Ornt	Door Type		Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area	
✓	1	S	Insulated		1st Floor	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	S	1	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	9 ft 6 in	0 ft 6 in	None	None
✓	2	E	2	Vinyl	Low-E Double	Yes	0.36	0.25	N	9.0 ft²	1 ft 0 in	7 ft 0 in	None	None
✓	3	N	3	Vinyl	Low-E Double	Yes	0.36	0.25	N	9.0 ft²	1 ft 6 in	0 ft 6 in	None	None
✓	4	W	4	Vinyl	Low-E Double	Yes	0.36	0.25	N	6.0 ft²	1 ft 0 in	7 ft 0 in	None	None
✓	5	E	6	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 0 in	2 ft 0 in	None	None
✓	6	W	8	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 0 in	2 ft 0 in	None	None

  

INFILTRATION									
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50	
1	Wholehouse	Proposed ACH(50)	.000241	506.7	27.8	52.19	.1267	5	

  

HEATING SYSTEM									
✓	#	System Type		Subtype	Speed	Efficiency	Capacity	Block	Ducts
✓	1	Electric Heat Pump/		None	Single	HSPF:8.2	27.24 kBtu/hr	1	Ductless

INPUT SUMMARY CHECKLIST REPORT

COOLING SYSTEM										
✓	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	None	Single	SEER: 14	26.65 kBtu/hr	810 cfm	0.7	1	Ductless

HOT WATER SYSTEM									
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Propane	Tankless	Exterior	0.59	1 gal	40 gal	120 deg	None

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

TEMPERATURES														
Programable Thermostat: Y				Ceiling Fans:										
Cooling	Heating	Venting	<input checked="" type="checkbox"/> Jan <input type="checkbox"/> Jan <input type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb <input type="checkbox"/> Feb <input type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar <input type="checkbox"/> Mar <input type="checkbox"/> Mar	<input type="checkbox"/> Apr <input type="checkbox"/> Apr <input checked="" type="checkbox"/> Apr	<input type="checkbox"/> May <input type="checkbox"/> May <input type="checkbox"/> May	<input checked="" type="checkbox"/> Jun <input type="checkbox"/> Jun <input type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul <input type="checkbox"/> Jul <input type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug <input type="checkbox"/> Aug <input type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep <input type="checkbox"/> Sep <input type="checkbox"/> Sep	<input type="checkbox"/> Oct <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov <input type="checkbox"/> Nov <input type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec <input type="checkbox"/> Dec <input type="checkbox"/> Dec
Thermostat Schedule:		HERS 2006 Reference												
Schedule Type		Hours												
		1	2	3	4	5	6	7	8	9	10	11	12	
Cooling (WD)	AM	78	78	78	78	78	78	78	78	78	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	68	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\* = 73

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

533 SW Homestead Circle, Ft White, FL, 32038

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	1296.00 ft <sup>2</sup>
3. Number of units, if multiple family	1		b. N/A	R=	ft <sup>2</sup>
4. Number of Bedrooms	2		c. N/A	R=	ft <sup>2</sup>
5. Is this a worst case?	No		d. N/A	R=	ft <sup>2</sup>
6. Conditioned floor area (ft <sup>2</sup> )	800		11. Ceiling Type and insulation level	Insulation	Area
7. Windows**	Description	Area	a. Roof Deck (Unvented)	R=30.0	480.00 ft <sup>2</sup>
a. U-Factor:	Dbl, U=0.36	84.00 ft <sup>2</sup>	b. N/A	R=	ft <sup>2</sup>
SHGC:	SHGC=0.25		c. N/A	R=	ft <sup>2</sup>
b. U-Factor:	N/A	ft <sup>2</sup>	12. Ducts, location & insulation level	R	ft <sup>2</sup>
SHGC:					
c. U-Factor:	N/A	ft <sup>2</sup>	13. Cooling systems	kBtu/hr	Efficiency
SHGC:			a. Central Unit	26.7	SEER:14.00
d. U-Factor:	N/A	ft <sup>2</sup>	14. Heating systems	kBtu/hr	Efficiency
SHGC:			a. Electric Heat Pump	27.2	HSPF:8.20
Area Weighted Average Overhang Depth:	4.089 ft.		15. Hot water systems		
Area Weighted Average SHGC:	0.250		a. Propane	Cap: 1 gallons	
8. Skylights	Description	Area	b. Conservation features	EF: 0.59	
a. U-Factor(AVG):	N/A	ft <sup>2</sup>	None		
SHGC(AVG):	N/A		Credits (Performance method)		CV, Pstat
9. Floor Types	Insulation	Area			
a. Raised Floor	R=19.0	480.00 ft <sup>2</sup>			
b. Floor Over Other Space	R=19.0	320.00 ft <sup>2</sup>			
c. N/A	R=	ft <sup>2</sup>			

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 #:
<b>Job Information</b>	
Builder:	Community: Lot: NA
Address: 533 SW Homestead Circle	
City: Ft White	State: FL Zip: 32038
<b>Air Leakage Test Results</b> <i>Passing results must meet either the Performance, Prescriptive, or ERI Method</i>	
<input type="radio"/> <b>PRESCRIPTIVE METHOD</b> -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.	
<input type="radio"/> <b>PERFORMANCE or ERI METHOD</b> -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): <span style="border: 1px solid black; padding: 2px 20px;">5.000</span>	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <math display="block">\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div 6080 = \text{ACH}(50)</math> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; margin-right: 10px;"></div> <div style="font-size: 24px; font-weight: bold;">PASS</div> </div> <div style="margin-top: 10px;"> <input type="checkbox"/> When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.         </div> </div> <div style="width: 35%;"> <p><u>Method for calculating building volume:</u></p> <input type="radio"/> Retrieved from architectural plans  <input checked="" type="radio"/> Code software calculated  <input type="radio"/> Field measured and calculated         </div> </div>	
<p><b>R402.4.1.2 Testing.</b> 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. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.</p> <p>During testing:</p> <ol style="list-style-type: none"> <li>1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.</li> <li>2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.</li> <li>3. Interior doors, if installed at the time of the test, shall be open.</li> <li>4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.</li> <li>5. Heating and cooling systems, if installed at the time of the test, shall be turned off.</li> <li>6. Supply and return registers, if installed at the time of the test, shall be fully open.</li> </ol>	
<b>Testing Company</b>	
<p>Company Name: _____ Phone: _____</p> <p>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.</p> <p>Signature of Tester: _____ Date of Test: _____</p> <p>Printed Name of Tester: _____</p> <p>License/Certification #: _____ Issuing Authority: _____</p>	