FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	J-7027 - C-1720	Builder Name:	
Street:	182 Drew Feagle Ave	Permit Office:	
City, State, Zip:	Fort White , FL , 32038	Permit Number:	
Owner:	Stovall Residence	Jurisdiction:	
Design Location:	FL, Gainesville	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)	1685			
Conditioned floor area below grade (ft²)	0			
7. Windows(177.5 sqft.)	Description		Area	
a. U-Factor:	Dbl, U=0.35		177.50	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			Area	
c. U-Factor:(AVG)	N/A			ft²
SHGC(AVG):	N/A			
9. Floor Types (1685.0 sqft.)		Insulation	Area	
a. Slab-On-Grade Edge Insulation		R=0.0	1685.00	ft²
b. N/A		R=		ft²
c. N/A		R=		ft²

10. Wall Types(1610.4 sqft.)	Insulation	Area	
a. Frame - Wood, Exterior	R=11.0	1610.40	ft²
b. N/A	R=		ft²
c. N/A	R=		ft²
d. N/A	R=		ft²
11. Ceiling Types (2548.0 sqft.)	Insulation	Area	
a. Under Attic (Vented)	R=30.0	1959.00	ft²
b. Knee Wall (Vented)	R=19.0	589.00	ft²
c. N/A	R=		ft²
12. Ducts		R	ft²
a. Sup: Attic, Ret: Attic, AH: Attic		6	200
13. Cooling systems	kBtu/hr	Efficiency	
a. Central Unit	35.0	SEER:14.00	
14. Heating systems	kBtu/hr	Efficiency	
a. Electric Heat Pump	35.0	HSPF:8.20	
15. Hot water systems			
a. Electric		Cap: 40 gallons	
		EF: 0.950	
b. Conservation features			
None			
16. Credits		Pstat	

Glass/Floor Area: 0.105

Total Proposed Modified Loads: 47.56

Total Baseline Loads: 49.93

PASS

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

PREPARED BY: James Bolton

DATE: 09/08/2021

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).

- Compliance with a proposed duct leakage Qn requires a Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.030 Qn for whole house.

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	J-7027 - C-1720	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1685	Lot #	
Owner Name:	Stovall Residence	Total Stories:	2	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	182 Drew Feagle Ave
Permit Office:		Cross Ventilation:	No	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Fort White , FL , 32038
Family Type:	Detached				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

√	Design Location	TMY Site	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp 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	1685	15165

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1685	15165	Yes	4	3	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	160 ft		1685 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	Metal	1825 ft²	352 ft²	Medium	N	0.9	N	0.9	No	0	22.62

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	150	1685 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Knee Wall (Vented)	Main	19	Blown	200 ft²	0.1	Wood
_____	2	Knee Wall (Vented)	Main	19	Blown	9 ft²	0.1	Wood
_____	3	Knee Wall (Vented)	Main	19	Blown	208 ft²	0.1	Wood
_____	4	Knee Wall (Vented)	Main	19	Blown	136 ft²	0.1	Wood
_____	5	Knee Wall (Vented)	Main	19	Blown	36 ft²	0.1	Wood
_____	6	Under Attic (Vented)	Main	30	Blown	1959 ft²	0.1	Wood

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WALLS

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
____	1	N	Exterior	Frame - Wood	Main	11	41	2	9	3	382.5 ft²	0	0.25	0.8	0
____	2	E	Exterior	Frame - Wood	Main	11	55	3	9	3	511.1 ft²	0	0.25	0.8	0
____	3	S	Exterior	Frame - Wood	Main	11	41	2	9	3	380.8 ft²	0	0.25	0.8	0
____	4	W	Exterior	Frame - Wood	Main	11	36	4	9	3	336.1 ft²	0	0.25	0.8	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	E	Wood	Main	None	.39	6		8		48 ft²
_____	2	W	Wood	Main	None	.39	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	Overhang Separation	Int Shade	Screening
_____	1	n	1	Metal	Low-E Double	Yes	0.35	0.25	N	15.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	2	n	1	Metal	Low-E Double	Yes	0.35	0.25	N	6.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	3	e	2	Metal	Low-E Double	Yes	0.35	0.25	N	17.5 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	4	e	2	Metal	Low-E Double	Yes	0.35	0.25	N	90.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	5	s	3	Metal	Low-E Double	Yes	0.35	0.25	N	36.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	6	w	4	Metal	Low-E Double	Yes	0.35	0.25	N	9.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	7	W	4	Metal	Low-E Double	Yes	0.35	0.25	N	4.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000286	1263.8	69.33	130.17	.1355	5

HEATING SYSTEM

√	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/	Split	Singl	HSPF:8.2	35 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	Split	Singl	SEER: 14	35 kBtu/hr	cfm	0.8	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Main	0.95	40 gal	60 gal	120 deg	None

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SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
_____	None	None			ft²		

DUCTS

√	#	---- Supply ---- Location	R-Value	Area	---- Return ---- Location	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
_____	1	Attic	6	200 ft²	Attic	100 ft²	Prop. Leak Free	Attic	--- cfm	50.5 cfm	0.03	0.50	1	1

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

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	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