

FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

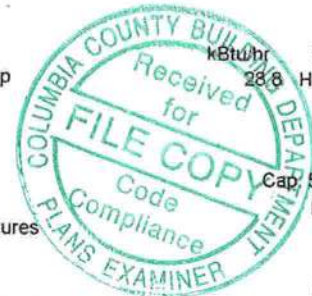
Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: FISHER, GREG & GLORIA Street: 224 SW Fordham Glen City, State, Zip: Fort White, FL, 32038 Owner: Greg & Gloria Fisher Design Location: FL, Tallahassee	Builder Name: ChrisMills Homes of Florida 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 2 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 1675 Conditioned floor area below grade (ft²) 0 7. Windows (191.3 sqft.) Description Area a. U-Factor: Dbl, U=0.41 173.33 ft² SHGC: SHGC=0.36 b. U-Factor: Dbl, U=0.55 18.00 ft² SHGC: SHGC=0.45 c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 0.000 ft. Area Weighted Average SHGC: 0.368 8. Skylights Area c. U-Factor:(AVG) N/A ft² SHGC(AVG): N/A 9. Floor Types (1675.0 sqft.) Insulation Area a. Slab-On-Grade Edge Insulation R=0.0 1675.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types (1727.1 sqft.) Insulation Area a. Frame - Wood, Exterior R=25.0 1439.40 ft² b. Frame - Wood, Adjacent R=25.0 287.70 ft² c. N/A R= ft² d. N/A R= ft² 11. Ceiling Types (1675.0 sqft.) Insulation Area a. Under Attic (Vented) R=38.0 1675.00 ft² b. N/A R= ft² c. N/A R= ft² 12. Ducts R ft² a. Sup: Attic, Ret: Attic, AH: Attic 8 416 13. Cooling systems kBtu/hr Efficiency a. Central Unit 21.2 SEER:14.00 14. Heating systems kBtu/hr Efficiency a. Electric Heat Pump 28.8 HSPF:8.20 15. Hot water systems Cap: 55 gallons EF: 0.920 a. Electric b. Conservation features None 16. Credits CV, Pstat
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Glass/Floor Area: 0.114	Total Proposed Modified Loads: 41.08	PASS
	Total Baseline Loads: 41.84	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>Matt Green</u> DATE: <u>2-8-21</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: <u>[Signature]</u> DATE: <u>2/19/21</u>	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.
- 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 6.49 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:	FISHER, GREG & GLORIA			Bedrooms:	2		Address Type:		Street Address				
Building Type:	User			Conditioned Area:	1675		Lot #						
Owner Name:	Greg & Gloria Fisher			Total Stories:	1		Block/Subdivision:						
# of Units:	1			Worst Case:	No		PlatBook:						
Builder Name:	ChrisMills Homes of Florida			Rotate Angle:	270		Street:		224 SW Fordham Glen				
Permit Office:				Cross Ventilation:	Yes		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 % 2.5 %		Int Design Temp Winter Summer		Heating Degree Days	Design Moisture	Daily Temp Range			
_____	FL, Tallahassee	FL_TALLAHASSEE_REGI		28 94		70 75		1545	46	Medium			
BLOCKS													
	Number	Name	Area	Volume									
	1	Block1	1675	15075									
SPACES													
	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated		
	1	Main	1675	15075	Yes	3	2	1	Yes	Yes	Yes		
FLOORS													
✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile		Wood	Carpet		
_____	1	Slab-On-Grade Edge Insulation	Main	189 ft	0	1675 ft²		----		1	0	0	
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	1815 ft²	348 ft²	Light	N	0.96	No	0.9	No	0	22.62
ATTIC													
✓	#	Type	Ventilation	Vent Ratio (1 in)		Area	RBS	IRCC					
_____	1	Full attic	Vented	300		1675 ft²	N	N					
CEILING													
✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac		Truss Type				
_____	1	Under Attic (Vented)	Main	38	Blown	1675 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	N=>W	Exterior	Frame - Wood	Main	25	12		9		108.0 ft²		0.2	0.75	0
2	N=>W	Exterior	Frame - Wood	Main	25	23		9		207.0 ft²		0.2	0.75	0
3	N=>W	Exterior	Frame - Wood	Main	25	7	10	9		70.5 ft²		0.2	0.75	0
4	N=>W	Garage	Frame - Wood	Main	25	22.8		9		205.2 ft²		0.2	0.75	0
5	W=>S	Garage	Frame - Wood	Main	25	9	2	9		82.5 ft²		0.2	0.75	0
6	W=>S	Exterior	Frame - Wood	Main	25	21	6	9		193.5 ft²		0.2	0.75	0
7	S=>E	Exterior	Frame - Wood	Main	25	14	10	9		133.5 ft²		0.2	0.75	0
8	S=>E	Exterior	Frame - Wood	Main	25	13.6		9		122.4 ft²		0.2	0.75	0
9	S=>E	Exterior	Frame - Wood	Main	25	23		9		207.0 ft²		0.2	0.75	0
10	S=>E	Exterior	Frame - Wood	Main	25	12		9		108.0 ft²		0.2	0.75	0
11	E=>N	Exterior	Frame - Wood	Main	25	13	2	9		118.5 ft²		0.2	0.75	0
12	E=>N	Exterior	Frame - Wood	Main	25	6		9		54.0 ft²		0.2	0.75	0
13	E=>N	Exterior	Frame - Wood	Main	25	13		9		117.0 ft²		0.2	0.75	0

DOORS											
✓	#	Ornt	Door Type	Space	Storms	U-Value	Width		Height		Area
							Ft	In	Ft	In	
—	1	N=>W	Insulated	Main	None	.4	3		6	8	20 ft²
—	2	N=>W	Insulated	Main	None	.4	2	8	6	8	17.8 ft²
—	3	S=>E	Insulated	Main	None	.4	5	4	6	8	35.6 ft²

WINDOWS													
Orientation shown is the entered orientation (=>) changed to As Built (rotated 270 degrees)													
✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
1	N=>W	1	Vinyl	Double (Clear)	Yes	0.55	0.45	N	18.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
2	N=>W	2	Vinyl	Double (Clear)	Yes	0.41	0.36	N	36.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
3	N=>W	3	Vinyl	Double (Clear)	Yes	0.41	0.36	N	9.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
4	W=>S	6	Vinyl	Double (Clear)	Yes	0.41	0.36	N	16.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
5	S=>E	9	Vinyl	Double (Clear)	Yes	0.41	0.36	N	18.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
6	E=>N	12	Vinyl	Double (Clear)	Yes	0.41	0.36	N	3.3 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
7	S=>E	8	Vinyl	Double (Clear)	Yes	0.41	0.36	N	31.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
8	S=>E	10	Vinyl	Double (Clear)	Yes	0.41	0.36	N	30.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
9	E=>N	11	Vinyl	Double (Clear)	Yes	0.41	0.36	N	30.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None

GARAGE						
✓ #	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation	
1	560.88 ft²	560.88 ft²	64 ft	9 ft	1	

INPUT SUMMARY CHECKLIST REPORT

INFILTRATION										
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50		
1	Wholehouse	Proposed ACH	.000371	1630.3	89.6	167.92	.13	6.4889		

HEATING SYSTEM										
☒	#	System Type	Subtype	Speed	Efficiency	Capacity		Block	Ducts	
	1	Electric Heat Pump/	Split	Single	HSPF 8.2	28.76 kBtu/hr		1	sys#1	

COOLING SYSTEM										
☒	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
	1	Central Unit/	Split	Single	SEER: 14	21.2 kBtu/hr	720 cfm	0.75	1	sys#1

HOT WATER SYSTEM										
☒	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation	
	1	Electric	None	Main	0.919999	55 gal	50 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 ---			Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area	Leakage Type						Heat	Cool
	1	Attic	8	416 ft²	Attic	104 ft²	Prop. Leak Free	Attic	— cfm	50.3 cfm	0.03	0.50	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	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	68
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	68	68
MECHANICAL VENTILATION													
Type	Supply CFM	Exhaust CFM	Fan Watts	HRV	Heating System					Run Time	Cooling System		
None	0	0		0	1 - Electric Heat Pump					0%	1 - Central Unit		
MASS													
Mass Type	Area		Thickness		Furniture Fraction					Space			
Default(8 lbs/sq. ft.)	0 ft²		0 ft		0.3					Main			