

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Brain Trujillo Street: City, State, Zip: Lake City, FL Owner: Brain and Heather Trujillo Design Location: FL, Tallahassee	Builder Name: chrisMill 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: 4 5. Is this a worst case?: No 6. Conditioned floor area above grade (ft²): 2225 Conditioned floor area below grade (ft²): 0 7. Windows (208.7 sqft.) <table style="width:100%;"> <tr> <th style="width:40%;">Description</th> <th style="width:40%;">Area</th> </tr> <tr> <td>a. U-Factor: Dbl, U=0.35 SHGC: SHGC=0.30</td> <td>208.67 ft²</td> </tr> <tr> <td>b. U-Factor: N/A SHGC:</td> <td>ft²</td> </tr> <tr> <td>c. U-Factor: N/A SHGC:</td> <td>ft²</td> </tr> <tr> <td>Area Weighted Average Overhang Depth: 0.000 ft.</td> <td></td> </tr> <tr> <td>Area Weighted Average SHGC: 0.300</td> <td></td> </tr> </table> 8. Skylights <table style="width:100%;"> <tr> <td>c. U-Factor:(AVG): N/A SHGC(AVG): N/A</td> <td>ft²</td> </tr> </table> 9. Floor Types (2225.0 sqft.) <table style="width:100%;"> <tr> <th style="width:40%;">Insulation</th> <th style="width:40%;">Area</th> </tr> <tr> <td>a. Slab-On-Grade Edge Insulation: R=0.0</td> <td>2225.00 ft²</td> </tr> <tr> <td>b. N/A: R=</td> <td>ft²</td> </tr> <tr> <td>c. N/A: R=</td> <td>ft²</td> </tr> </table>	Description	Area	a. U-Factor: Dbl, U=0.35 SHGC: SHGC=0.30	208.67 ft²	b. U-Factor: N/A SHGC:	ft²	c. U-Factor: N/A SHGC:	ft²	Area Weighted Average Overhang Depth: 0.000 ft.		Area Weighted Average SHGC: 0.300		c. U-Factor:(AVG): N/A SHGC(AVG): N/A	ft²	Insulation	Area	a. Slab-On-Grade Edge Insulation: R=0.0	2225.00 ft²	b. N/A: R=	ft²	c. N/A: R=	ft²	10. Wall Types(1850.3 sqft.) <table style="width:100%;"> <tr> <th style="width:40%;">Insulation</th> <th style="width:40%;">Area</th> </tr> <tr> <td>a. Frame - Wood, Exterior: R=19.0</td> <td>1850.30 ft²</td> </tr> <tr> <td>b. N/A: R=</td> <td>ft²</td> </tr> <tr> <td>c. N/A: R=</td> <td>ft²</td> </tr> <tr> <td>d. N/A: R=</td> <td>ft²</td> </tr> </table> 11. Ceiling Types (2225.0 sqft.) <table style="width:100%;"> <tr> <th style="width:40%;">Insulation</th> <th style="width:40%;">Area</th> </tr> <tr> <td>a. Under Attic (Vented): R=38.0</td> <td>2225.00 ft²</td> </tr> <tr> <td>b. N/A: R=</td> <td>ft²</td> </tr> <tr> <td>c. N/A: R=</td> <td>ft²</td> </tr> </table> 12. Ducts <table style="width:100%;"> <tr> <th style="width:40%;">R</th> <th style="width:40%;">ft²</th> </tr> <tr> <td>a. Sup: Attic, Ret: Attic, AH: Attic: 8</td> <td>445</td> </tr> </table> 13. Cooling systems <table style="width:100%;"> <tr> <th style="width:40%;">kBtu/hr</th> <th style="width:40%;">Efficiency</th> </tr> <tr> <td>a. Central Unit: 24.0</td> <td>SEER:14.00</td> </tr> </table> 14. Heating systems <table style="width:100%;"> <tr> <th style="width:40%;">kBtu/hr</th> <th style="width:40%;">Efficiency</th> </tr> <tr> <td>a. Electric Heat Pump: 31.4</td> <td>HSPF:14.00</td> </tr> </table> 15. Hot water systems <table style="width:100%;"> <tr> <td>a. Electric Tankless</td> <td>Cap: 1 gallons</td> </tr> <tr> <td>b. Conservation features: None</td> <td>EF: 0.920</td> </tr> </table> 16. Credits: Pstat	Insulation	Area	a. Frame - Wood, Exterior: R=19.0	1850.30 ft²	b. N/A: R=	ft²	c. N/A: R=	ft²	d. N/A: R=	ft²	Insulation	Area	a. Under Attic (Vented): R=38.0	2225.00 ft²	b. N/A: R=	ft²	c. N/A: R=	ft²	R	ft²	a. Sup: Attic, Ret: Attic, AH: Attic: 8	445	kBtu/hr	Efficiency	a. Central Unit: 24.0	SEER:14.00	kBtu/hr	Efficiency	a. Electric Heat Pump: 31.4	HSPF:14.00	a. Electric Tankless	Cap: 1 gallons	b. Conservation features: None	EF: 0.920
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Glass/Floor Area: 0.094	Total Proposed Modified Loads: 52.80	PASS
	Total Baseline Loads: 52.79	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>Matthew Green</u> DATE: <u>7-28-21</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: <u>Green's Sales + Service</u> DATE: <u>7-28-21</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: _____  GREAT SEAL OF THE STATE OF FLORIDA IN GOD WE TRUST
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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 7.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title:	Brain Trujillo		Bedrooms:	4		Address Type:		Street Address					
Building Type:	User		Conditioned Area:	2225		Lot #							
Owner Name:	Brain and Heather Trujillo		Total Stories:	1		Block/Subdivision:							
# of Units:	1		Worst Case:	No		PlatBook:							
Builder Name:	chrisMill Homes of Florida		Rotate Angle:	0		Street:							
Permit Office:			Cross Ventilation:			County:		Columbia					
Jurisdiction:			Whole House Fan:			City, State, Zip:		Lake City , FL ,					
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	2225	20025									
SPACES													
	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated		
	1	Main	2225	20025	Yes	5	4	1	Yes	Yes	Yes		
FLOORS													
✓	#	Floor Type	Space	Perimeter	R-Value	Area			Tile	Wood	Carpet		
_____	1	Slab-On-Grade Edge Insulation	Main	204.3 ft	0	2225 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	Hip	Composition shingles	2576 ft²	0 ft²	Dark	N	0.92	No	0.9	No	0	30.26
ATTIC													
✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC						
_____	1	Full attic	Vented	300	2225 ft²	N	N						
CEILING													
✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type					
_____	1	Under Attic (Vented)	Main	38	Blown	2225 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	E	Exterior	Frame - Wood	Main	19	57	6	9		517.5 ft²		0.23	0.75	0
2	N	Exterior	Frame - Wood	Main	19	45		9		405.0 ft²		0.23	0.75	0
3	W	Exterior	Frame - Wood	Main	19	57	6	9		517.5 ft²		0.23	0.75	0
4	S	Exterior	Frame - Wood	Main	19	45	7	9		410.3 ft²		0.23	0.75	0

DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
1	E	Insulated	Main	Wood	.25	3		6	8	20 ft²
2	W	Insulated	Main	Wood	.25	2	8	6	8	17.8 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	E	1	Vinyl	Low-E Double	Yes	0.35	0.3	N	72.0 ft²	0 ft 0 in	0 ft 0 in	IECC	None
2	N	2	Vinyl	Low-E Double	Yes	0.35	0.3	N	18.0 ft²	0 ft 0 in	0 ft 0 in	IECC	None
3	W	3	Vinyl	Low-E Double	Yes	0.35	0.3	N	31.0 ft²	0 ft 0 in	0 ft 0 in	IECC	None
4	W	3	Vinyl	Low-E Double	Yes	0.35	0.3	N	66.7 ft²	0 ft 0 in	0 ft 0 in	IECC	None
5	W	3	Vinyl	Low-E Double	Yes	0.35	0.3	N	9.0 ft²	0 ft 0 in	0 ft 0 in	IECC	None
6	S	4	Vinyl	Low-E Double	Yes	0.35	0.3	N	12.0 ft²	0 ft 0 in	0 ft 0 in	IECC	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.0004	2336.3	128.17	240.63	.14	7

HEATING SYSTEM

✓ #	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
1	Electric Heat Pump/	None	Single	HSPF:14	31.36 kBtu/hr	1	sys#1

COOLING SYSTEM

✓ #	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
1	Central Unit/	None	Single	SEER: 14	24.04 kBtu/hr	720 cfm	0.75	1	sys#1

HOT WATER SYSTEM

✓ #	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
1	Electric	Tankless	Main	0.920000	1 gal	70 gal	120 deg	None

INPUT SUMMARY CHECKLIST REPORT

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	8	445 ft²	Attic	111.25 f	Default Leakage	Attic	(Default)	c(Default) c			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

Thermostat Schedule: HERS 2006 Reference

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	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