

**FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION**

Florida Department of Business and Professional Regulation - Residential Performance Method

<b>Project Name:</b> QUALITY FAMILY HOMES BROOKS RES XXX SR 4 <b>Street:</b> XXX SR 47 <b>City, State, Zip:</b> LAKE CITY, FL, 32025 <b>Owner:</b> QUALITY FAMILY HOMES <b>Design Location:</b> FL, Gainesville	<b>Builder Name:</b> <b>Permit Office:</b> <b>Permit Number:</b> <b>Jurisdiction:</b> <b>County:</b> Columbia (Florida Climate Zone 2)
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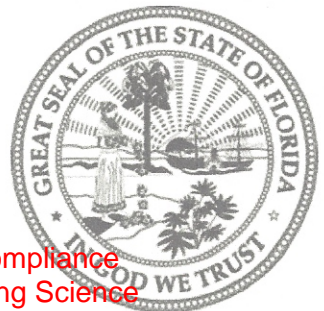
1. New construction or existing      New (From Plans) 2. Single family or multiple family      Detached 3. Number of units, if multiple family      1 4. Number of Bedrooms      5 5. Is this a worst case?      No 6. Conditioned floor area above grade (ft²)      2570 Conditioned floor area below grade (ft²)      0 7. Windows(253.3 sqft.)      Description      Area a. U-Factor:      Dbl, U=0.33      253.33 ft² SHGC:      SHGC=0.28 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:      0.280 8. Skylights      Area c. U-Factor:(AVG)      N/A      ft² SHGC(AVG):      N/A 9. Floor Types (2570.0 sqft.)      Insulation      Area a. Slab-On-Grade Edge Insulation      R=0.0      2325.00 ft² b. Floor over Garage      R=19.0      245.00 ft² c. N/A      R=      ft²	10. Wall Types(2493.0 sqft.)      Insulation      Area a. Frame - Wood, Exterior      R=13.0      2493.00 ft² b. N/A      R=      ft² c. N/A      R=      ft² d. N/A      R=      ft² 11. Ceiling Types (2570.0 sqft.)      Insulation      Area a. Under Attic (Vented)      R=30.0      2570.00 ft² b. N/A      R=      ft² c. N/A      R=      ft² 12. Ducts      R      ft² a. Sup: Attic, Ret: Attic, AH: Attic      6      1025 13. Cooling systems      kBtu/hr      Efficiency a. Central Unit      55.5      SEER:14.00 14. Heating systems      kBtu/hr      Efficiency a. Electric Heat Pump      55.5      HSPF:8.20 15. Hot water systems      Cap: 50 gallons a. Electric      EF: 0.920 b. Conservation features None 16. Credits      CF, Pstat
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Glass/Floor Area: 0.099	Total Proposed Modified Loads: 64.84	<b>PASS</b>
	Total Baseline Loads: 67.11	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.  <b>PREPARED BY:</b> <u><i>Universal Engineering Science</i></u> <b>DATE:</b> <u>9-15-21</u>  I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.  <b>OWNER/AGENT:</b> <u>Bill Ladson</u> <b>DATE:</b> _____	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.  <div style="text-align: center;">  </div> <div style="text-align: center; color: red;"> <b>Review for Code Compliance</b>  <b>Universal Engineering Science</b> </div> <div style="text-align: center;"> <b>BUILDING OFFICIAL:</b>  <u><i>Stephanie Parnell</i></u>  <div style="display: flex; justify-content: space-between;"> <span>DATE: <u>11/18/2021</u></span> <span>PX2707</span> </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <span>Examiner License No.</span> <span></span> </div> </div>
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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 6.73 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:	QUALITY FAMILY HOMES B	Bedrooms:	5	Address Type:	Street Address
Building Type:	User	Conditioned Area:	2570	Lot #	
Owner Name:	QUALITY FAMILY HOMES	Total Stories:	2	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	XXX SR 47
Permit Office:		Cross Ventilation:	No	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	LAKE CITY , FL , 32025
Family Type:	Detached				
New/Existing:	New (From Plans)				
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_REGI	32	92	70	75	1305.5	51	Medium

## BLOCKS

Number	Name	Area	Volume
1	Entire House	2570	23130

## SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	MAIN	2325	20925	Yes	5	4	1	Yes	Yes	Yes
2	BONUS	245	2205	No	2	1	1	Yes	Yes	Yes

## FLOORS

✓	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	MAIN	236 ft		2325 ft²	_____	0	0	1
_____	2	Floor over Garage	BONUS	_____	_____	245 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	Composition shingles	3089 ft²	856 ft²	Medium	Y	0.4	No	0.4	No	0	33.69

## ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	2570 ft²	Y	N



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## INPUT SUMMARY CHECKLIST REPORT

## CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
	1	Under Attic (Vented)	MAIN	30	Blown	2325 ft²	0.1	Wood
	2	Under Attic (Vented)	BONUS	30	Blown	245 ft²	0.1	Wood

## WALLS

✓	#	Omt	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	Exterior	Frame - Wood	MAIN	13	53	0	9	0	477.0 ft²	0	0.19	0.4	0
	2	E	Exterior	Frame - Wood	MAIN	13	65	0	9	0	585.0 ft²	0	0.19	0.4	0
	3	S	Exterior	Frame - Wood	MAIN	13	42	0	9	0	378.0 ft²	0	0.19	0.4	0
	4	W	Exterior	Frame - Wood	MAIN	13	43	0	9	0	387.0 ft²	0	0.19	0.4	0
	5	N	Exterior	Frame - Wood	BONUS	13	26	0	9	0	234.0 ft²	0	0.19	0.4	0
	6	E	Exterior	Frame - Wood	BONUS	13	11	0	9	0	99.0 ft²	0	0.19	0.4	0
	7	S	Exterior	Frame - Wood	BONUS	13	26	0	9	0	234.0 ft²	0	0.19	0.4	0
	8	W	Exterior	Frame - Wood	BONUS	13	11	0	9	0	99.0 ft²	0	0.19	0.4	0

## DOORS

✓	#	Omt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
	1	E	Insulated	MAIN	None	.4	3		8		24 ft²
	2	W	Insulated	MAIN	None	.4	3		8		24 ft²
	3	N	Insulated	BONUS	None	.4	2	10	7		19.8 ft²

## WINDOWS

Orientation shown is the entered, Proposed orientation.

✓	#	Omt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
	1	N	1	Vinyl	Low-E Double	Yes	0.33	0.28	N	8.5 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	2	N	1	Vinyl	Low-E Double	Yes	0.33	0.28	N	15.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	3	E	2	Vinyl	Low-E Double	Yes	0.33	0.28	N	8.5 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	4	E	2	Vinyl	Low-E Double	Yes	0.33	0.28	N	45.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	5	E	2	Vinyl	Low-E Double	Yes	0.33	0.28	N	30.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	6	E	2	Vinyl	Low-E Double	Yes	0.33	0.28	N	19.8 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	7	S	3	Vinyl	Low-E Double	Yes	0.33	0.28	N	8.5 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	8	S	3	Vinyl	Low-E Double	Yes	0.33	0.28	N	16.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	9	W	4	Vinyl	Low-E Double	Yes	0.33	0.28	N	90.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
	10	W	4	Vinyl	Low-E Double	Yes	0.33	0.28	N	12.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5

## GARAGE

✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
	1	594 ft²	594 ft²	65 ft	9 ft	0



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## INPUT SUMMARY CHECKLIST REPORT

## INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000385	2596	142.42	267.39	.1825	6.7341

## HEATING SYSTEM

✓	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
✓	1	Electric Heat Pump/	Split	Singl	HSPF:8.2	55.5 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	55.5 kBtu/hr	cfm	0.7	1	sys#1

## HOT WATER SYSTEM

✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	None	Garage	0.92	50 gal	62.3 gal	120 deg	None

## SOLAR HOT WATER SYSTEM

✓	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
✓	None	None			ft <sup>2</sup>		

## DUCTS

✓	#	--- Supply ---			--- Return ---		Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area							Heat	Cool
	1	Attic	6	1025 ft²	Attic	229 ft²	Prop. Leak Free	Attic	--- cfm	77.1 cfm	0.03	0.50	1	1

## TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

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



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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	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 ft <sup>2</sup>		0 ft		0.3		MAIN					
Default(8 lbs/sq.ft.		ft <sup>2</sup>		ft		0.3		BONUS					



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# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

## ESTIMATED ENERGY PERFORMANCE INDEX\* = 97

The lower the Energy Performance Index, the more efficient the home.

XXX SR 47, LAKE CITY, FL, 32025

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	2493.00 ft <sup>2</sup>
3. Number of units, if multiple family	1		b. N/A	R=	ft <sup>2</sup>
4. Number of Bedrooms	5		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> )	2570		11. Ceiling Type and insulation level	Insulation	Area
7. Windows**	Description	Area	a. Under Attic (Vented)	R=30.0	2570.00 ft <sup>2</sup>
a. U-Factor:	Dbl, U=0.33	253.33 ft <sup>2</sup>	b. N/A	R=	ft <sup>2</sup>
SHGC:	SHGC=0.28		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:			a. Sup: Attic, Ret: Attic, AH: Attic	6	1025
c. U-Factor:	N/A	ft <sup>2</sup>	13. Cooling systems	kBtu/hr	Efficiency
SHGC:			a. Central Unit	55.5	SEER:14.00
d. U-Factor:	N/A	ft <sup>2</sup>	14. Heating systems	kBtu/hr	Efficiency
SHGC:			a. Electric Heat Pump	55.5	HSPF:8.20
Area Weighted Average Overhang Depth:	1.000 ft.		15. Hot water systems		
Area Weighted Average SHGC:	0.280		a. Electric	Cap: 50 gallons	EF: 0.92
8. Skylights	Description	Area	b. Conservation features		
a. U-Factor(AVG):	N/A	ft <sup>2</sup>	None		
SHGC(AVG):	N/A		Credits (Performance method)		CF, Pstat
9. Floor Types	Insulation	Area			
a. Slab-On-Grade Edge Insulation	R=0.0	2325.00 ft <sup>2</sup>			
b. Floor over Garage	R=19.0	245.00 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 staff.

\*\*Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.



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