

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: 157_Simque Street: Lot 133 Preserve City, State, Zip: Lake City, FL, 32055- Owner: Aaron Simque Design Location: FL, Jacksonville	Builder Name: Aaron Simque Homes Permit Office: Permit Number: Jurisdiction:
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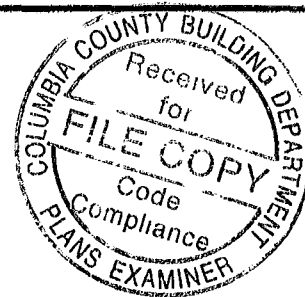
1. New construction or existing: New (From Plans) 2. Single family or multiple family: Single-family 3. Number of units, if multiple family: 1 4. Number of Bedrooms: 4 5. Is this a worst case?: No 6. Conditioned floor area above grade (ft²): 1987 Conditioned floor area below grade (ft²): 0 7. Windows (294.7 sqft.) a. U-Factor: Dbl, U=0.32 Area: 294.67 ft² SHGC: SHGC=0.27 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: d. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 4.344 ft. Area Weighted Average SHGC: 0.270 8. Floor Types (1987.0 sqft.) a. Slab-On-Grade Edge Insulation Insulation: R=0.0 Area: 1987.00 ft² b. N/A R= ft² c. N/A R= ft²	9. Wall Types (1966.3 sqft.) a. Frame - Wood, Exterior Insulation: R=13.0 Area: 1726.30 ft² b. Frame - Wood, Adjacent R=13.0 240.00 ft² c. N/A R= ft² d. N/A R= ft² 10. Ceiling Types (1987.0 sqft.) a. Under Attic (Vented) Insulation: R=30.0 Area: 1987.00 ft² b. N/A R= ft² c. N/A R= ft² 11. Ducts R ft² a. Sup: Attic, Ret: Attic, AH: Garage 6 397.4 12. Cooling systems kBtu/hr Efficiency a. Central Unit 42.0 SEER:14.00 13. Heating systems kBtu/hr Efficiency a. Electric Heat Pump 42.0 HSPF:8.50 14. Hot water systems a. Electric Cap: 50 gallons EF: 0.920 b. Conservation features None 15. Credits CF, Pstat
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Glass/Floor Area: 0.148	Total Proposed Modified Loads: 34.12	PASS
	Total Standard Reference Loads: 44.69	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u><i>[Signature]</i></u> DATE: <u>7-18-13</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: <u>7-18-13</u> DATE: <u><i>[Signature]</i></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 completion of a Florida Air Barrier and Insulation Inspection Checklist



PROJECT

Title: 157_Simque	Bedrooms: 4	Address Type: Street Address
Building Type: User	Conditioned Area: 1987	Lot #:
Owner: Aaron Simque	Total Stories: 1	Block/SubDivision:
# of Units: 1	Worst Case: No	PlatBook:
Builder Name: Aaron Simque Homes	Rotate Angle: 0	Street: Lot 133 Preserve
Permit Office:	Cross Ventilation:	County: Columbia
Jurisdiction:	Whole House Fan:	City, State, Zip: Lake City, FL, 32055-
Family Type: Single-family		
New/Existing: New (From Plans)		
Comment:		

CLIMATE

	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	Summer	Heating Degree Days	Design Moisture	Daily Temp Range
✓	FL, Jacksonville	FL_JACKSONVILLE_INT	2	32	93	70	75	1281	49	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1987	19870

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1987	19870	Yes	4	4	1	Yes	Yes	Yes

FLOORS

	#	Floor Type	Space	Perimeter	R-Value	Area	Tile	Wood	Carpet
✓	1	Slab-On-Grade Edge Insulatio	Main	204.42 ft	0	1987 ft²	0.25	0	0.75

ROOF

	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
✓	1	Hlp	Composition shingles	2301 ft²	0 ft²	Medium	0.96	No	0.9	No	0	30.3

ATTIC

	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
✓	1	Full attic	Vented	300	1987 ft²	N	N

CEILING

	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
✓	1	Under Attic (Vented)	Main	30	1987 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	E	Exterior	Frame - Wood	Main	13	14	6	10	0	145 ft²		0.23	0.75	0
2	S	Exterior	Frame - Wood	Main	13	3	6	10	0	35 ft²		0.23	0.75	0
3	E	Exterior	Frame - Wood	Main	13	7	2	10	0	71.66666		0.23	0.75	0
4	N	Exterior	Frame - Wood	Main	13	3	6	10	0	35 ft²		0.23	0.75	0
5	E	Exterior	Frame - Wood	Main	13	12	6	10	0	125 ft²		0.23	0.75	0
6	S	Garage	Frame - Wood	Main	13	9	0	8	0	72 ft²		0.23	0.75	0
7	E	Garage	Frame - Wood	Main	13	21	0	8	0	168 ft²		0.23	0.75	0
8	S	Exterior	Frame - Wood	Main	13	33	5	8	0	267.3333		0.23	0.75	0
9	W	Exterior	Frame - Wood	Main	13	12	2	8	0	97.33333		0.23	0.75	0
10	N	Exterior	Frame - Wood	Main	13	1	8	8	0	13.33333		0.23	0.75	0
11	W	Exterior	Frame - Wood	Main	13	13	6	10	0	135 ft²		0.23	0.75	0
12	N	Exterior	Frame - Wood	Main	13	9	0	10	0	90 ft²		0.23	0.75	0
13	W	Exterior	Frame - Wood	Main	13	29	6	10	0	295 ft²		0.23	0.75	0
14	N	Exterior	Frame - Wood	Main	13	18	4	10	0	183.3333		0.23	0.75	0
15	W	Exterior	Frame - Wood	Main	13	3	0	10	0	30 ft²		0.23	0.75	0
16	N	Exterior	Frame - Wood	Main	13	7	8	10	0	76.66666		0.23	0.75	0
17	E	Exterior	Frame - Wood	Main	13	3	0	10	0	30 ft²		0.23	0.75	0
18	N	Exterior	Frame - Wood	Main	13	9	8	10	0	96.66666		0.23	0.75	0

DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
1	E	Insulated	Main	None	0.460000	3	0	6	8	20 ft²
2	E	Insulated	Main	None	0.460000	3	0	6	8	17.77777
3	W	Insulated	Main	None	0.460000	3	0	6	8	96 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening
1	E	1	Vinyl	Double (Tinted)	Yes	0.32	0.27	20 ft²	1 ft 8 in	3 ft 0 in	Drapes/blinds	None
2	E	1	Vinyl	Double (Tinted)	Yes	0.32	0.27	5.555555	1 ft 8 in	1 ft 6 in	Drapes/blinds	None
3	E	5	Vinyl	Double (Tinted)	Yes	0.32	0.27	36 ft²	7 ft 2 in	1 ft 6 in	Drapes/blinds	None
4	S	8	Vinyl	Double (Tinted)	Yes	0.32	0.27	30 ft²	1 ft 8 in	1 ft 6 in	Drapes/blinds	None
5	W	9	Vinyl	Double (Tinted)	Yes	0.32	0.27	30 ft²	1 ft 8 in	1 ft 6 in	Drapes/blinds	None
6	W	11	Vinyl	Double (Tinted)	Yes	0.32	0.27	36 ft²	1 ft 8 in	1 ft 6 in	Drapes/blinds	None
7	N	12	Vinyl	Double (Tinted)	Yes	0.32	0.27	36 ft²	18 ft 1 in	1 ft 6 in	Drapes/blinds	None
8	W	13	Vinyl	Double (Tinted)	Yes	0.32	0.27	36 ft²	1 ft 8 in	1 ft 6 in	Drapes/blinds	None
9	N	14	Vinyl	Double (Tinted)	Yes	0.32	0.27	36 ft²	1 ft 8 in	1 ft 6 in	Drapes/blinds	None
10	N	16	Vinyl	Double (Tinted)	Yes	0.32	0.27	5.555555	1 ft 8 in	1 ft 6 in	Drapes/blinds	None
11	N	18	Vinyl	Double (Tinted)	Yes	0.32	0.27	3.555555	1 ft 8 in	1 ft 6 in	Drapes/blinds	None
12	N	18	Vinyl	Double (Tinted)	Yes	0.32	0.27	20 ft²	1 ft 8 in	1 ft 6 in	Drapes/blinds	None

GARAGE											
✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation					
✓	1	462 ft²	462 ft²	53 16 ft	9 ft	13					

INFILTRATION								
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	0.000500	2605.9	143.06	269.05	0.3850	7.8690

HEATING SYSTEM									
✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts		
✓	1	Electric Heat Pump	None	HSPF: 8.5	42 kBtu/hr	1	sys#1		

COOLING SYSTEM									
✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit	None	SEER: 14	42 kBtu/hr	1260 cfm	0.75	1	sys#1

HOT WATER SYSTEM									
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	None	Garage	0 92	50 gal	70 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 ---		Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area							Heat	Cool
✓	1	Attic	6	397.4 ft	Attic	99 35 ft	Default Leakage	Garage	(Default)	(Default) %			1	1

TEMPERATURES

Programable Thermostat. Y

Ceiling Fans:

Cooling	<input checked="" type="checkbox"/>	Jan	<input checked="" type="checkbox"/>	Feb	<input checked="" type="checkbox"/>	Mar	<input checked="" type="checkbox"/>	Apr	<input checked="" type="checkbox"/>	May	<input checked="" type="checkbox"/>	Jun	<input checked="" type="checkbox"/>	Jul	<input checked="" type="checkbox"/>	Aug	<input checked="" type="checkbox"/>	Sep	<input checked="" type="checkbox"/>	Oct	<input checked="" type="checkbox"/>	Nov	<input checked="" type="checkbox"/>	Dec	<input checked="" type="checkbox"/>
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		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

Florida Code Compliance Checklist

Florida Department of Business and Professional Regulations
Residential Whole Building Performance Method

ADDRESS: Lot 133 Preserve Lake City, FL 32055-	PERMIT #:
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MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402.4	To be caulked, gasketed, weatherstripped or otherwise sealed. Recessed lighting IC-rated as meeting ASTM E 283. Windows and doors = 0.30 cfm/sq.ft. Testing or visual inspection required. Fireplaces: gasketed doors & outdoor combustion air. Must complete envelope leakage report or visually verify Table 402.4.2.	
Thermostat & controls	403.1	At least one thermostat shall be provided for each separate heating and cooling system. Where forced-air furnace is primary system, programmable thermostat is required. Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load.	
Ducts	403.2.2	All ducts, air handlers, filter boxes and building cavities which form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section 503.2.7.2 of this code.	
	403.3.3	Building framing cavities shall not be used as supply ducts.	
Water heaters	403.4	Heat trap required for vertical pipe risers. Comply with efficiencies in Table 403.4.3.2. Provide switch or clearly marked circuit breaker (electric) or shutoff (gas). Circulating system pipes insulated to = R-2 + accessible manual OFF switch.	
Mechanical ventilation	403.5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level. No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas.	
Swimming Pools & Spas	403.9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds. Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency=78% (82% after 4/16/13). Heat pump pool heaters minimum COP= 4.0.	
Cooling/heating equipment	403.6	Sizing calculation performed & attached. Minimum efficiencies per Tables 503.2.3 Equipment efficiency verification required. Special occasion cooling or heating capacity requires separate system or variable capacity system. Electric heat >10kW must be divided into two or more stages.	
Ceilings/knee walls	405.2.1	R-19 space permitting.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 76

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

Lot 133 Preserve, Lake City, FL 32055-

1 New construction or existing	New (From Plans)	9. Wall Types	Insulation	Area
2. Single family or multiple family	Single-family	a. Frame - Wood, Exterior	R=13.0	1726 30 ft²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	240.00 ft²
4 Number of Bedrooms	4	c. N/A	R=	ft²
5 Is this a worst case?	No	d. N/A	R=	ft²
6 Conditioned floor area (ft²)	1987	10 Ceiling Types	Insulation	Area
7. Windows**	Description	a. Under Attic (Vented)	R=30 0	1987 00 ft²
a. U-Factor	Dbl, U=0 32	b. N/A	R=	ft²
SHGC	SHGC=0 27	c. N/A	R=	ft²
b. U-Factor	N/A	11. Ducts		R
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage		6 397 4
c. U-Factor:	N/A			
SHGC:		12. Cooling systems	kBtu/hr	Efficiency
d. U-Factor:	N/A	a. Central Unit	42.0	SEER:14.00
SHGC:				
Area Weighted Average Overhang Depth:	4.344 ft.	13. Heating systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.270	a. Electric Heat Pump	42.0	HSPF:8 50
8. Floor Types	Insulation	Area		
a. Slab-On-Grade Edge Insulation	R=0 0	1987.00 ft²		Cap: 50 gallons
b. N/A	R=	ft²		EF: 0.92
c. N/A	R=	ft²		
		14. Hot water systems		
		a. Electric		
		b. Conservation features		
		None		
		15 Credits		CF, Pstat

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.

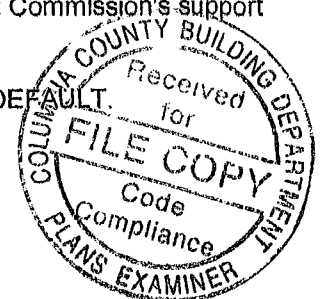
Builder Signature: Arnon S. Lopez Date: 7-18-13
Address of New Home: _____ City/FL Zip: _____



*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 EnergyGauge Rating. Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at energygauge.com for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

EnergyGauge® USA - FlaRes2010 Section 405 4 1 Compliant Software



Florida Code Summary Report

Aaron Simque
Lot 133 Preserve
Lake City, FL 32055-
Registration #:

Title: 157_Simque
FLAsBuilt

TMY City: FL JACKSONVILLE
Elec Util: Florida Average
Gas Util: Florida Average
Run Date:

Energy Uses	Reference Home	Proposed Home	e-Ratio
Heating	4.43 MBtu	3.02 MBtu	0.68
Cooling	11.55 MBtu	8.20 MBtu	0.71
Hot Water	10.78 MBtu	10.50 MBtu	0.97
Total	26.76 MBtu	21.72 MBtu	0.81

Building Loads	Reference Home	Proposed Home	e-Ratio
Heating	7.67 MBtu	5.23 MBtu*	0.68
Cooling	27.22 MBtu	19.34 MBtu*	0.71
Hot Water	9.81 MBtu	9.54 MBtu*	0.97
Total	44.69 MBtu	34.12 MBtu	0.76

* normalized modified loads

Glass/Floor Area: 0.148

Total Proposed Modified Loads: 34.12

Total Reference Loads: 44.69

PASS